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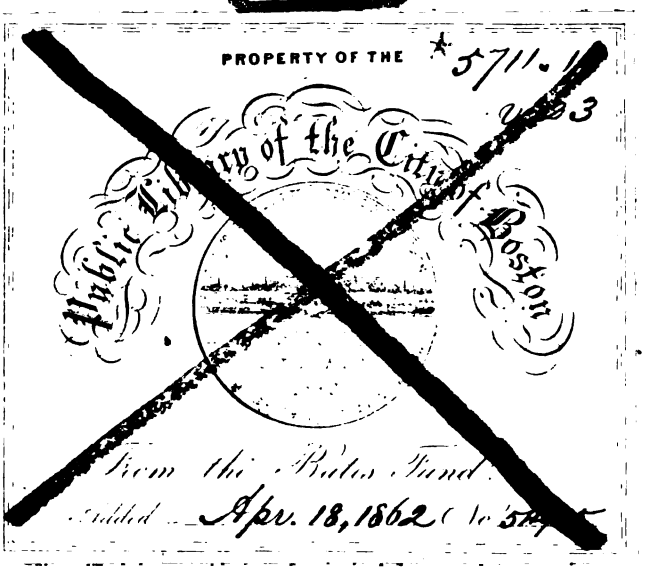

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MEDICAL TIMES:

A

JOURNAL OF MEDICAL SCIENCE,

LITERATURE, CRITICISM, AND NEWS.

NEW SERIES.—VOLUME THE SECOND.

OLD SERIES.—VOL. XXIII.

JANUARY 4, TO JUNE 28, 1851.

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INDEX.

A.

Abdomen, physical examination of, and the palpable signs of disease of, 138, 223
Abscess, cerebral, in an epileptic subject, 115
..... followed by general paralysis, 270
Abdominal parietes, case of perforation of, by J. H. Gramshaw, Esq., 20
Abstinence, two remarkable cases of, 157
Address to the Physicians, Surgeons, and Apothecaries throughout the Kingdom, 179
..... to the subscribers
..... of Dr. Murphy, at the Medical Society, 236
..... of Mr. Hodgson, at the Medical and Chirurgical Society, 236
Air passages, ejectment of a bean from, case of, 49
Aloes, the cathartic principle of, 104
Aloin, 104
Amputation of the astragalus and os calcis, 216, 238
Anencephalus monstrosity case, by Mr. Borlase Childs, 9
Aneurism, popliteal, spontaneous cure of, case of, 96
Anthony, Dr. Francis, an empiric, 259
Antrum, spontaneous collapse of the walls of, case of, 216
Aortic valves, disease of, 178
Apoplexy, nervous periodical, case of, 141
Apothecaries' Hall pass lists, 24, 75, 141, 163, 208, 227, 249
Application of collodion in burns, 31
Appointments, Naval, 12, 75, 97, 186, 227, 249
..... Military, 186
Archæology, Medical, 145, 257
Army, Medical Officers killed, 24
Arum triphyllum, a new remedy for pulmonary phthisis, 25
Armstrong's Pauper Lunatic Asylum, and the testimony of Richard Donelly, 69
Arsenic, best preparations of for internal administration, 41
..... case of poisoning by, 244
Arseniuretted gas, preservation of morbid specimens in, 107
Association National, List of the Members of, 6, 46, 108, 181, 221, 243, 264
Astragalus and os calcis, amputation of, 216, 238
Aurum potabile, 259

B.

Barker, Dr. Herbert, case of internal hæmorrhage before delivery, 127
Bean, ejectment of from the air passages, case of, 49
Belladonna in scarlet fever, by Dr. John Gardner, 1
..... by Suum Cuique, 19
..... remarks on, 88
Bladder, paralysis of, case of, 26
..... congenital malformation of, case of, 214
B. L. J. on Medical Reform, 39
Blood, amount of potash existing in, 20
..... relative proportion of potash and soda in, 21
..... presence of bile in, 150
..... presence of casein in, 6
Blood vessels, the natural arrangement of, by John Jackson, Esq., 18
First or Hepatic Vascular System
Second or Pulmonic Vascular System
Third or Systemic Vascular System
Bone, exfoliation of, after amputation, 43
Bowels, obstruction of, singular case of, 275
Books and Journals received, 75, 97, 119
Brain, tumour of, case of, 276
Branding by a Surgeon, 53
Brown, Dr. Patrick, on the value of the English Spas, 5
..... case of extreme hæmorrhage accompanying the passage of a uterine polypus, 149
Bryant, J., Esq., on the climate and diseases of Van Dieman's Land, 60
Buffalo Medical College, public excitement against a professor of, 11
Burns, collodion in, 31
Bile of the ox, peculiar metamorphosis of, 149
.... on the presence of, in the blood, 150

C.

Calculus in the urethra, case of, 153
Cancer of the womb, complicated with labour, 277
Case of communication between the stomach and external surface of the abdomen, 26
Casein, discovered in the blood of females during lactation, 6
Cerebral abscess in an epileptic subject
Cerebrum and cerebellum, case of softening of, 24
Cæsarian section, successfully performed, 74
..... account of a case, in which it was performed, 128
..... a case of, by H. Oldham, Esq. 172
Chloroform, its uses, doses, and mode of administration, 135
..... death from, 201
..... in 9,000 cases, results of, 202
Chlorosis, accompanied with paralysis, case of, 96
Chlorinated hydro-chloric æther, 114
Cholera, infectious nature of, by Dr. Bryson, R.N., 24
..... in Jamaica, 75
..... in Berlin, statistics of, 163
Chylo-serous urine, case of, 240
Climate and diseases of Van Dieman's Land, 58
Clothing, observations on, by P. P., 234
Cod liver oil, in jail cachexia,
College of Surgeons, pass lists, 24, 53, 75, 141, 186, 283
College of Physicians of Edinburgh, Bennett's Lectures, notice of, 117
..... important resolutions of, 196
College of Surgeons of Edinburgh, and the resolutions adopted February 3rd, 1851
Collodion in burns, the application of, 31
..... in erysipelas, the use of, 270
COMPENDIUM OF MEDICAL SCIENCE AND PRACTICE:—
CV. Case of softening of cerebrum and cerebellum—fatty degeneration of the heart—tubercular abscesses in the lungs, 24
CVI. Cod-liver oil in jail cachexia, 25
CVII. Rare case of complicated parturition, 25
CVIII. Proposed new remedy for pulmonary phthisis—arum triphyllum, 25
CIX. Paralysis of the bladder, from over distension after delivery, 26
CX. Remarkable case of communication between the stomach and external surface of the abdomen, 26
CXI. Pelvic tumour complicating labour, 27
CXII. Cyanosis produced by transposition of the orifices of the aorta and pulmonary artery, 28
CXIII. On pleurisy in childhood, 29
CXIV. Neuralgia of eighteen years' standing cured by an operation, 30
CXV. On the use of corrosive sublimate in hydrocephalus acutus, 31
CXVI. On the application of collodion in burns, 31
CXVII. On the employment of urate of ammonia in chronic eruptions of the skin, and in pulmonary tuberculosis, 31
CXVIII. Central laceration of the perineum, 31
CXIX. Case of hydrophobia, 48
CXX. Remarkable case of menstruation occurring in a child three years old, 49
CXXI. Treatment of impetigo, by purgatives and topical astringents, 49
CXXII. On the employment of the vapour of iodine in the treatment of pulmonary phthisis, 49
CXXIII. Case of ejectment of a bean from the air passages, after remaining six days, 50
CXXIV. Case of comminuted fracture of the occipital bone. Extraction of the splinters five months after the injury, 50
CXXV. Case of paralysis of the right side of the face, accompanied with increased susceptibility of hearing, 51
CXXVI. Case of neuralgia, with acute sensibility of the skin of the whole body, cured by transcurrent cauterization, 51
CXXVII. Case of cynanche parotidæa, with metastasis to the testicle, and cerebral complication. Convalescence in ten days, 51
CXXVIII. Periostitis, and its treatment by the sub-integumental incision, 52
CXXIX. Observations on the removal of loose cartilages from joints by the valvular mode, 52
CXXX. Case of difficult labour, in consequence of twins joined by the breast, 69
CXXXI. Dr. D. Maclagan on the application of caustic to the hæmorrhage from leech-bites, 70
CXXXII. Scrofulous disease of the joints, having its origin in the cancellous structure of the bones, 70
CXXXIII. Observations on ulceration of the articular cartilages, 71
CXXXIV. The treatment of false joint after ununited fracture, 71
CXXXV. Treatment of sprains and bruises, 71
CXXXVI. On perichondritis laryngea and its relation to other morbid processes, 71
CXXXVII. Encysted tumours treated by repeated injections of iodine, 74
CXXXVIII. On the external employment of ice in typhus fever, 74
CXXXIX. The Cæsarian section successfully performed by M. Custodi, 74
CXL. Gambier, a new remedy from China, successfully employed in the treatment of intermittent fever, 94
CXLI. Case of total absence of the uterus, 95
CXLII. Case of chlorosis, accompanied with paralysis, 96
CXLIII. Case of spontaneous cure of popliteal aneurism, 96
CXLIV. Case of hydrophobia, occurring twenty-eight days after the bite of a rabid dog, and terminating in death on the fifth day after the commencement of the symptoms, 113
CXLV. Large cerebral abscess in an epileptic subject, 115
CXLVI. Intra-uterine polypus, of a large size, successfully operated on, 115
CXLVII. Notes on cholera, dysentery, ship fever, and intermittant fever, 116
CXLVIII. Chloroform, its uses, dose, and mode of administration, 135
CXLIX. Case of strangulated hernia, 136

Google

CL. Extirpation of the globe of the eye, 137
CLI. Compound fracture of the femur, extending into the knee-joint; secondary amputation death, 137
CLII. On the physical examination of the abdomen, and the palpable signs of disease, 138
CLIII. Case of increased power of vision preceding an affection of the brain, 140
CLIV. Case of nervous periodical apoplexy, 141
CLV. Very remarkable case of ecstatic sleep, 156
CLVI. Two remarkable cases of abstinence, 157
CLVII. Case of spontaneous cure of a tumour in the rectum of a child, which was treated for prolapsus ani, 159
CLVIII. Hypertrophy of the anterior lip of the os uteri, removed by operation, 159
CLIX. Relation of a case of complete and congenital obliteration of the vagina, with imperforation of the neck of the uterus; restoration of the vaginal passage and the uterine orifice; marriage; pregnancy; labour at full time; convulsions; dead child; mother died on the tenth day, 160
CLX. Remarkable case of diabetes mellitus, 182
CLXI. On internal hæmorrhage in new-born infants, 182
CLXII. Death from taking too large a quantity of Morison's pills, 182
CLXIII. Practical observations. By Dr. J. L. Jeuni, 183
CLXIV. Remarks on the treatment of acute hydrocephalus, 197
CLXV. Poisoning by corrosive sublimate, 198
CLXVI. Case of stricture of the urethra, in which the operation of division of the stricture, by external incision, was followed by a fatal result, 200
CLXVII. Death from chloroform, 201
CLXVIII. Results of the use of chloroform in 9,000 cases at St. Bartholomew's Hospital, 202
CLXIX. Hydrocephalus cured by hydriodate of potass, 203
CLXX. Natural history of gambier, 203
CLXXI. A case of tumour in the bladder, 204
CLXXII. On the physical examination of the abdomen in health and disease, 222
CLXXIII. On the treatment of permanent pseudarthrosis by an apparatus which permits the use of the limb, and obviates the necessity of amputation. (Illustrated.) 225
CLXXIV. Recent contributions to the theory of digestion, 226
CLXXV. On the state of the spinal cord in hemiplegia, 226
CLXXVI. Notes of a case of poisoning by arsenic, 244
CLXXVII. Fracture of the hyoid bone, 245
CLXXVIII. On the luxation of the fingers backwards, 245
CLXXIX. Case of erysipelatous laryngitis, in which tracheotomy was performed, 246
CLXXX. On the origin and different modifications of the coatings of the tongue, 247
CLXXXI. On the use of collodion in erysipelas. 270
CLXXXII. General paralysis from abscesses in the cerebellum, 270
CLXXXIII. On fatty degeneration of the heart, chiefly in reference to some points of diagnosis, 272
CLXXXIV. Singular case of obstruction of the bowels; with some remarks upon the use of tartar emetic in cases of obstinate constipation, 275
CLXXXV. Case of tumour in the middle and anterior lobes of the brain, 276
CLXXXVI. Cases of labour, complicated with ulcerating cancer of the womb, 277
CLXXXVII. Case of hydrophobia, 280
Compound fracture of the femur, case of, 137
Congenital malformation, case of, by Henry Charles Curtis, Esq., 18
Constipation, tartar emetic in, 275
Convulsive cough, case of, by Dr. Ogier Ward, 42
Coroner's Court, editorial article on, 8
....., letter on, 40
Corncockle, analysis of, 20
CORRESPONDENCE, 5, 18, 39, 62, 85, 102, 127, 148, 171, 194,
Correlation of Physical Forces, by W. A. Grove, Esq., M.A., F.R.S., review of, 21
CORRESPONDENTS, NOTICES to, 12, 31, 55, 77, 99, 119, 141, 163, 186, 205, 249
Corrosive sublimate in hydrocephalus acutus, 20
..... case of poisoning by, 198
Cough, convulsive, case of, 42
Curare poison, researches on, 87
Cyanosis, case of, 28
Cynanche parotidea, with metastasis, 51

D.

D'Alquen, Dr., on Rademacher's theory and practice, 4
Dahomans, manners and customs of, 9
Damara country, a paper on, 93
Davies, F., Esq., case of alarming hæmorrhage, 148
Death from lock-jaw, 119
..... from tight lacing, 249
Diabetes, remarkable case of, 182
Diarrhœa, as a hitherto unnoticed symptom of menstruation, 192
Digestion, recent contributions to the theory of, 226
Donnelly, Richard, the insane witness, 69
Durham, University of, 155
Dysentery, an instructive case of, 85

E.

Early empiricism, 145
Ecstatic sleep, remarkable case of, 156
EDITORIAL ARTICLES:—
Organic chemistry, 7
The Coroner's Court, 8
The General Practitioners, an unrepresented body, 22
Homœopathy and homœopathic absurdities, 44
The Colleges and the Bill, 45
The Reciprocity Clause, 68
Testimony of the insane, 68
Homœopathy, 98
The influence of the seasons and weather on sickness and mortality, 89
On the Resolutions adopted by the Royal College of Surgeons of Edinburgh, on February 3, 111
Poor-law medical relief, 112
Testimony of the insane, 138
On our meteorological tables connected with Medical topography, 134
Prospects of the General Practitioners, 155
The Newcastle Medical School and the University of Durham, 155
Address to the Physicians, Surgeons, and Apothecaries throughout the United Kingdom, 179
Important Resolutions of the Edinburgh College of Physicians, 196
The Hunterian Museum, 196
On the present condition and prospects of the General Practitioners, 219
On the preliminary and general education of the Practitioner in Medicine, Surgery, and Midwifery, 241
Address to subscribers, 261
The system of apprenticeship, 261
Medical benovolent and provident societies, 263
Education, preliminary, letter from G. on, 260
Education, preliminary and general, of the Practitioners in Medicine, Surgery, and Midwifery, 241
Empiricism, 145
Encephaloid disease of the peritoneum, 91
Encysted tumours, treated by repeated injections of iodine, 74
Epidemiological Society, reports of, 24, 62, 106, 190
Ethnological Society, reports of, 9, 92
Erysipelas in an infant, Mr. H. Smith's case of, 9
....., application of collodion in, 270
Erysipelatous laryngitis, in which tracheotomy was performed, case of, 246
Exfoliation of bone after amputation, 43
Extirpation of the globe of the eye, 137
Eye, extirpation of, 137

F.

False joint, treatment of, 71
Fatty degeneration of the heart, 272
Femur, compound fracture of, 137
Fibrous tumour of the uterus in conjunction with pregnancy, 66
Fingers, luxation of backwards, 245
Flourens on chlorinated hydro-chloric æther, 118
Fœtal head, compression of, during birth, 240
Fracture of hyoid bone, case of, 245
Fracture, comminuted, of the occipital bone, case of, 50
Fractures of the limbs treated by gutta percha, 231, 235
PART I.
General method of treating fractures by means of gutta percha (illustrated)
Fracture of the inferior extremity of the radius,
..... of the fore arm,
Complete fracture of the fore arm,
Fracture of the radius, inferior third, (illustrated)
Comminuted fracture of the right arm (illustrated)
Severe sprain of the right foot,
Fracture of the inferior extremity of the fibula, with luxation of the foot backwards and outwards
Luxation of the foot outwards, fracture of the fibula (illustrated)
Fracture of the left tibia (illustrated)
Fracture of the leg (illustrated)
PART II.—(Page 255.)
Comminuted fracture of the leg, consequent upon the fall of a weight of about 1,000 kilogrammes (illustrated)
Oblique fracture of the leg (illustrated)
Oblique fracture of the tibia and fibula (illustrated)
Oblique fracture of the tibia
Functional paralysis, Mr. Edwin Lee's paper on, 10

G.

G. on the Bill of the National Institute, 194
... on preliminary education, 260
Gambier in the treatment of intermittent fever, 94
..... natural history of, 203
Gardner, Dr. John, on belladonna in scarlet fever, 1
General Practitioners, prospects of, 155
..... present condition and prospects of, 219
German diplomas, and the facility of obtaining them, 227
Githagin, a peculiar poisonous principle of corncockle, 20
Glanders, case of, 163
Gonorrhœa, causes of, 176
Green, J. T., Esq., on homœopathy, 62
Guernsey Hospital Drainage Committee, 97
Guthrie's lectures, 238
Gutta percha in the treatment of fractures, 232, 235

H.

Hall pass lists, 24, 75, 141, 163, 205, 227, 249, 263
Hardey, Robert, Esq., on the size of the hand of the accoucheur, 236
Harveian Society, reports of, 55
Haviland, Dr. death of, 53
..... successor to, 75
HEALTH OF LONDON, 12, 24, 53, 75, 97, 118, 141, 163, 186, 205, 227, 248, 263
Heart, fatty degeneration of, 272
Hemiplegia, the state of the spinal cord in, 226.
Hæmorrhage from leech bites, and the application of caustic, 70
..... alarming, from polypus, 172
..... internal, before delivery, case of, 127
..... alarming, before delivery, 148, cases of, 172
..... intestinal, in new born infants, 182
Hernia, the frequency of, to what attributable, by C. Jones, Esq., M.D., 19
.....strangulated, case of, 136
Hip-joint, suppuration of, case of, 216
Histological observations, by A. Kölliker, 61
Homœopathy, 89
Homœopathic filthiness, 75
Hospital for consumption, 97
..... St. George's, classical prize, 249
Hugh Atwell, a short account of, 146
Hunterian Museum, 196
Hydrocephalus acutus, treatment of, 197
Hydrophobia, case of, by James Struthers, Esq., 48
..... case of, by J. Wilson, Esq., 280
..... case of, occurring 28 days after the bite of a rabid dog,
Hydrocephalus, cured by hydriodate of potash, 203
Hyoid bone, fracture of, case of, 245
Hypertrophy and atrophy, the assimilative force in relation to, 92

I.

Ice in typhus fever, 74
Impetigo, treated by purgatives, 49
Infectious nature of Cholera, 24
Inhalation of various medicinal substances, 89
Intermittent fever, treated with gambier, cases of, 94
Intra-uterine polypus of a large size successfully operated on, 115
Iodine vapour in pulmonary phthisis, 49
Iodine, best mode of administering, 6
Iodide of Starch, 6
Iron, new preparation of, 66
..... superphosphate of, 215

J.

Jackson, John, Esq., on the natural arrangement of the blood vessels, 18
..... on the uses of the thyroid and thymic vessels, 102
Jail cachexia, cod-liver oil in,
Jones, C., Esq., M.D., case of dysentery, 85
John Dee, a short account of, 145

K.

King, George, Esq., on the hand of the accoucheur, 186

L.

Labour complicated with ulcerating cancer of the womb, cases of, 277
Laryngitis, erysipelatous, case of, 246
Leaves from the Diary of a Parish Doctor, 2, 16, 60, 146
Lectures, Guthrie's, 238
LECTURES ON THE GERMAN MINERAL WATERS. By Sigismund Sutro, M.D.
Lecture VI.—Pfäfers—road from Wildbad—Canstadt and its springs—orthopædic institution—lake of Constance—Wurtemberg—railroads—Ilorschach—Pfäfers—Hof-ragaz—walk to the source—the baths—coincidence with other akratopegæ—attempt to explain the minor efficacy of Ragaz—chief indication of Pfäfers—analysis—Paracelsus' opinion—Hufeland's—cases pointed out by Dr. Kaiser—explanation of the efficacy of the spa—in accordance with the ingredients—Ausbaden—after-cure—grape-cure—provisions for the poor—county asylum for lunatics in the neighbourhood, 35
Lecture VII.—Gastein—shortest route—travelling in Germany—Road from Munich to Salzburg—the Gradenbach — Berchtesgaden — Reichenbach's water-lifting machines—King's lake—effect of the journey itself—scenery and environs of Salzburg—charms of nature between Salzburg and Gastein—the valley of Gastein—greater strength and

vitality developed in the animal and vegetable kingdoms—Deeper inspirations necessary than in low localities—Emperor Frederick the Third—Paracelsus—Wandelbahn—character of the mountain masses—the warm springs—electro-motor power—magnetic power of oxygen—efficacy of the springs—renal crises—satiety—indications—Dr. Kiene—difference between direct and indirect cures—instance—diseases to which Gastein is especially adapted—walk to Hof-gastein—Dr. Sleting—alleged advantages of the filial establishment—some illustrating cases—distinctive indications between Wildbad, Pfäfers, and Gastein, 79

Lecture VIII.—Ischl—Teplitz—Hallein—salt-works—road to Ischl—Salzkammergut—Schmalnauer's garden—salt mountain—Soole baths—Dr. Wirer—saline vapour, and moor baths—poultices of mountain mud—swimming school gymnastic exercises—cases sent by Professor d'Outrepont—continuation of the journey through Vienna and Prague to Teplitz—description of the environs—Schönau—climate—establishments for indigent patients—views from the heights round Teplitz—springs—analysis—prevalence of nitrogen—moor-baths—cure of Dr. Wengler from paralysis—his report—paralysis from typhus fever, through the sudden effect of gout—no effect in paralysis from nodous gout—explanation of the special efficacy—Teplitz as an after-cure of Carlsbad—sudden appearance of cholera—how induced—knowledge of those remedies that will not combat the evil—specifics impossible—reasons, 123

Lecture IX.—Pikropegæ—Carlsbad—characteristics of bitter waters—their origin—general effect—Bilin—Geilnauer water—Saidschütz—Seidlitz—Pfullna—their constituents compared—saline bitter water of Friedrichshall—Dr. Bartenstein—indication in dyspepsia—Carlsbad—river Tepl—Sprudel—stag's leap—appearance of the road from the height—picturesque environs—petrifactions—origin of the Sprudel (bubbler)—jerks not equal—sinter—Sprudel-eruptions—Hygieasquelle, or new Sprudel—Schlosbrunnen—Mühlbrunnen—Neubrunnen—Bernhardsbrunnen—Theresienbrunnen—Spitalbrunnen—relation of temperature to height—springs of fresh water rare—incrustations—pisoliths—increased production of animal matter counteracted—reputation in hepatic physconia—in hypochondriasis—difference of Carlsbad purging from ordinary purgation—Carlsbad salt—its preparation—Sprudel-soap—after-cure—warning to continental patients—English living a safe-guard against epidemic diseases—reasons—Franzensbad as after cure—a remarkable instance—necessity of vocal examination of patients themselves—mishaps occasionally occurring in the selection of spas, 167

Lecture X.—Marienbad to Franzensbad—journey from Carlsbad to Marienbad—demesne of Königswarth—numerous gas springs—Hamelika—Mühlberg—Steinhau—woody walks of the surrounding mountains—vicarage of Pistan—Kreuzbrunnen—Ferdinandsbrunnen—Ambrosiusbrunnen—Marienbrunnen—Waldquelle—abundance of carbonic acid—indications—stimulating influence on the liver—excessive evacuations to be deprecated—different effects of the various springs—gas baths, their first employment by Dr. Struve—marked result—use of mud baths by Dr. Wetzler—contra-indications—discrimination between Carlsbad and Marienbad—probable change produced by the lengthened contact of sulphate of soda with the gastric contents—Franzensbad—Egerland—town house of Eger—Göethe's remarks—position of the Bohemian triangle—difference of altitude—Eger river—road from Eger to Franzensbad—Franzensbrunnen—Kalte Sprudel—Salzquelle—analogy with, and difference from, Marienbad—moor baths—individualities specially adapted to the three Bohemian spas—various effects of the springs of Franzensbad—sensations induced by the moor baths—invariable result—Franzensbad springs particularly fit for exportation—benefit obtained by Frederick the Great—remarks of Hufeland—conclusion of the class of pikropegæ, 209

Lilly, William, an empiric, 258
..... licence granted to, 258
..... Butler's lines on, 259

Liver, Functional Diseases of, associated with Uterine Derangement, by Butler Lane, M.D., review of, 214

List of the Members of the Great National Association, 6, 46, 109, 181, 221, 243, 264

Lock-jaw, death from, 119

Luxation of the fingers backwards, 245

M.

Mammillated condition of the legs in certain cases of dropsy, 238

Manners and customs of the Dahomans, 9

Meetings of Societies, tables of, 7, 22, 44, 67, 88, 111, 133, 155, 179, 196, 219, 241, 261

Medical examinations and granting degrees, by a Medical Reformer, 5
..... Archæology, 145
..... and Chirurgical Society, reports of, 66, 93, 128, 151, 172, 191, 217, 239

MEDICAL INTELLIGENCE:—9, 24, 42, 62, 89, 106, 128, 151, 172, 192, 215, 236
..... Society of London, reports of, 9, 42, 64, 89, 106, 130, 153, 176, 192, 215, 236
..... News,

Medical and Chirurgical Society, letter from Medicus on the appointment of officers, 128

Medicine, curiosities of, 190

Medicinal substances, various, inhalation of, 89

Medicines, their Uses, and Mode of Administration, by J. Moore Neligan, M.D., review of, 105

Medico-Meteorological tables, 33, 54, 76, 98, 120, 142, 165, 185, 206, 229, 250

Menstruation, remarkable case of, 49
..... preceded by diarrhœa, 192

Members of the Great National Association, list of, 6, 46, 109, 181, 221, 243, 264

Metamorphosis of the bile in the ox, 149

Midwifery, demonstrative, in the Medical College, Buffalo, 11

Military appointments, 186

Mitscherlich on the volatile oil of nutmegs, and its effect upon the skin, 20

Moffatt, Dr., petition of, 249

Monstrosity, anencephalous, 9

Morison's pills, death from, 182

N.

National Association, list of the members of, 6, 46, 109, 181, 221, 243, 264
..... Institute's Bill, and the London and Edinburgh Colleges, letter from G. on, 194
..... a General Practitioner on, 213

Natural arrangement of blood vessels, 18

Naval appointments, 12, 75, 97, 186, 227, 249

Nervous periodical apoplexy, case of, 141

Neuralgia of eighteen years standing cured by an operation, 30
..... cured by transcurrent cauterization, case of, 51

Newcastle Medical School, 155

Notes on Cholera, Ship Fever, Dysentery, and Intermittent Fever, 116
..... a case of poisoning by arsenic, 244

Notices to Correspondents, 12, 31, 55, 77, 97, 119, 141, 163, 186, 205, 249

Nutmegs, the volatile oil of, effects of upon the skin 20

Nux vomica, case of poisoning by, 40

O.

Obituary, 75, 97, 119, 141, 163, 186, 205, 249

Observations on the removal of loose cartilages, 52
..... on clothing, by P.P., 234
..... on the Vaccination question, 254

Obstruction of the bowels, singular case of, 275

Occipital bone, comminuted fracture of, case of, 50

Organic Chemistry, editorial article on, 7

Os uteri, hypertrophy of, 159

P.

Paralysis agitans, 1
..... functional, Mr. Edwin Lee's paper on, 10
..... general, from abscess in the cerebellum, 270
..... of the bladder, case of, 26
..... of the right side of the face, accompanied with increased power of hearing, case of, 51

Paracelsus, a short account of, 145

Parish Doctor, Leaves from the Diary of, 3, 16, 60, 146

Pass Lists of the College of Surgeons, 24, 53, 75, 141, 186
..... Apothecaries' Hall, 24, 75, 141, 163, 205, 227, 249

Parturition, complicated, rare case of, 25

Perforation of the abdominal parietes, case of, 20

Perichondritis laryngea, 71

Periostitis and its treatment by the sub-integumental incision, 51

Perineum, central laceration of, 31

Phthisis and the Stethoscope, by R. P. Cotton, M.D., review of, 260

Phthisis, causes of, 178
..... new remedy for, 25

Pharmacopœia Nosocomii in curam Cutaneorum Morborum, review of, 106

PHILOSOPHICAL GAZETTE:—6, 20, 41, 67, 195

Picrotoxine, physiological properties of, 42

Pleurisy in childhood, 29

Pleurodynia, pleurisy, effusion, 91

Poisoning, by nux vomica
..... by corrosive sublimate, 198
..... by arsenic, 244

Polypus, intra-uterine successfully operated on, 115

Poor-law Medical Officers, convention of, and the interview with Lord John Russell, 102

Poor-law medical relief, 112

Popliteal aneurism, case of spontaneous cure of, 96

Potash, amount of in the blood, 20

Pseudarthrosis, permanent, apparatus for (illustrated), 225

Practical observations by Dr. J. L. Jeuni, 183
Hydrocephalus acutus autorum
Delirium tremens
Croup
Pneumonia
Gastritis chronica mucosa
Blennorrhœa uteri
Scabies
Eczema impetiginodes
Dysentery
Helminthiasis
Chlorosis
Dropsies
Phthisis tuberculosa
Neuralgia
Asthma spasmodicum
Lead cholic
Hysteria
Chorea

Pulmonary phthisis, proposed new remedy for, 28

R.

Rademacher's theory and practice, brief sketch of, 4, 83

Reciprocity clause, editorial remarks on, 67

Removal of the cuboid bone, &c., case of, 106

Renal elimination, diagnostic and therapeutic remarks on, 57

Researches on curare poison, 87

Respirator and chest protector, 227

Resolutions of the College of Surgeons, Edinburgh, 115

Reviews, 21, 106

Robert Fludd, a short account of, 145

S.

Saline artesian well at Kissengen, 118

Seasons and weather, influence of, on sickness and mortality, 89

Science in Spain, encouragement of, 97

Scrofulous disease of the joints, remarks on by Sir B. Brodie, 70

Sleep, ecstatic, case of, 156

Small-pox, a third time after vaccination, 191
..... confluent, after a third vaccination, 191
..... cases of, after vaccination, 217

Society, Medical, reports of, 9, 42, 64, 89, 106, 130, 153, 176, 192, 215, 236
..... Medical and Chirurgical, 66, 93, 128, 151, 172, 191, 217, 239
..... Harveian, 66
..... Epidemiological, 24, 62, 108, 190
..... Ethnological, 9, 92

SOCIETIES, MEETINGS OF, TABLE OF, 7, 22, 44, 67, 88, 111, 133, 155, 179, 196, 219, 241, 261

SOCIETIES, REPORTS OF:
MEDICAL SOCIETY:—
December 21.
Anencephalous monstrosity, Mr. Borlase Childs, 9
Erysipelas in an infant, Mr. Henry Smith, 9
Functional paralysis, Mr. Edwin Lee, 10
December 28.
Convulsive cough, Dr. Ogier Ward, 42
Physiological properties of picrotoxine, Dr. Glover, 42
January 4.
Perforation of the stomach—ulceration of the gastro-epiploic vein—death by hæmorrhage, Dr. Routh, 43
Exfoliation of bone after amputation, Mr. Gay, 64
Case of internal strangulation, by Mr. Hancock, 64
January 11.
New preparation of iron, exhibited by Dr. Routh, 66
The inhalation of various medicinal substances, Dr. Snow, 89
January 18.
Pleurodynia, pleurisy, effusion, Dr. Ogier Ward, 91
Encephaloid disease of the peritoneum, Dr. Snow Beck, 91
The assimilative force in relation to hypertrophy and atrophy, Dr. Henry, 92
January 25.
Removal of the cuboid bone, together with the two outer metatarsal bones and toes, Mr. Coulson, 106
Preservation of morbid specimens in arsenicuretted gas, Mr. B. W. Richardson, 107
The treatment of permanent stricture of the urethra, Mr. T. H. Wakley, 107
Practical observations on the treatment of permanent stricture of the urethra, Mr. Wade, 130
February 1.
Large calculus in the urethra, Mr. Henry Smith, 153
Necrosis of the tibia, Mr. Dampier, 154
The use of the speculum, Mr. Greenhalgh, 154
February 8.
The causes of gonorrhœa, Mr. Chippendale, 176
February 15.
New muscles of the urethra, Mr. Hancock, 177
Fibrous tumour of the uterus, Dr. Robt. Barnes, 177
Disease of the semilunar valves of the aorta, 178
The causes of phthisis, 178
February 22.
Corroding ulcer of the uterus, Dr. Henry Bennett, 192
On diarrhœa as a hitherto unnoticed symptom of menstruation, Dr. Tilt, 192
March 1.
Election of officers
Congenital malformation of the bladder, Mr. T. H. Wakley, 215
The new superphosphate of iron, Dr. Routh, 215
Spontaneous collapse of the walls of the antrum, Mr. White Cooper, 216

Digitized by Google

Suppuration of the hip joint, Dr. Rogers, 216
Caries of the petrous portion of the temporal bone, Mr. Willing, 216
March 15.
The address of the newly-elected president, Dr. Murphy
Amputation of the astragalus and os calcis. Mr. T. H. Wakley, 238
The mammillated condition of the legs in certain cases of Dropsy, Mr. Nunn, 238

MEDICO-CHIRURGICAL SOCIETY:—
January 14.
Fibrous tumour of the uterus in conjunction with pregancy, 66
Cases of rupture of the liver and spleen, 93
January 28.
Account of a case in which the Cæsarian section was performed, by Dr. West, 128
Discussion on Dr. West's paper, 151
February 11.
A case of Cæsarian section, by Dr. Oldham, 172
February 25.
Case of small-pox recurring a third time after vaccination, when it proved fatal, Dr. Webster, 191
Case of confluent small-pox after a third vaccination, Dr. Stewart, 191
The Mesmerists, 192
Cases of small-pox after vaccination, 217
March 11.
Address of the newly-elected president, Dr. Hodgson
On compression of the fœtal head during birth, Dr. O. Ward, 240
Statement of a case of chylo-serous urine, by J. E. Mayer, Esq.

ETHNOLOGICAL SOCIETY.:—
December 11.
Manners and customs of the Dahomans, 9
January 15.
On the Demara country, 92

HARVEIAN SOCIETY:—
January 16.
The characteristic peculiarities, pathology, and treatment of rheumatism, more particularly as it is found prevailing within the Tropics

EPIDEMIOLOGICAL SOCIETY:—
January 6.
The infectious nature of cholera, Dr. Bryson, 62
February 3.
Origin and progress of cholera and small-pox, in Guernsey, 108, 129.
March 3.
Some account of the yellow fever epidemy, by which Brazil was invaded in 1849, by Dr. McWilliam, 190.
Spas, English, the value of, 5
Specimens, morbid, preservation of, in arsenic urretted gas, 107
Speculum, use of, 154
Spooner, E. Oke, Esq., on vaccination, 253
Sprains and bruises, treatment of, 71
Statistics of cholera in Berlin, 163
..... suicide in Paris, 227
Stomach, perforation of, specimen of, 43
Strangulation, internal case of, 43
Stricture of the urethra, treatment of, by T. Wade, Esq., 130
.... treatment of, by T. H. Wakley, Esq., 107
Suicide, by pressure on the jugular, case of, 62
..... in Paris, statistics of, 227
Softening of cerebrum and cerebellum, case of, 24
Suum Cuique's letter on Dr. Gardner's paper, belladonna in scarlet fever, 19
Sutherland, J. S., Esq., on renal elimination, 57

T.
Tables, Medico-Meteorological, 33, 54, 76, 98, 120, 142, 165, 185, 206, 229, 250
Tartar Emetic in cases of obstinate constipation, 275
Temporal bone, caries of, case of, 216
Testimony of the insane, editorial article, 68
Thyroid and thymic vessels, the uses of, 102
Tibia, necrosis of, case of, 154
..... disease of, case of, 214
Tight lacing, death from, 249
Tongue, different modifications of the coatings of, origin of, 247
Tumour, pelvic, complicating labour, case of, 27
..... in the rectum, spontaneous cure of, 159
Tumour in the bladder, case of, 204
..... in the anterior and middle lobes of the brain, 276
..... encysted, treated by injections of iodine, 74
Twins, joined by the breast, case of difficult labour in consequence of, 69

U.
Ulceration of articular cartilages, observations on, 71
University of London, examination for honours, 119
..... Durham, 185
Uterus, total absence of, case of, 95
..... fibrous tumour of, specimen of, 177
..... corroding ulcer of, 192
..... fibrous tumour of, in conjunction with pregnancy, 66
Urate of ammonia in chronic eruptions of the skin, and pulmonary tuberculosis, 31
Urethra, treatment of permanent stricture of, by T. H. Wakley, Esq., 107
..... practical observations on the treatment of permanent stricture of, 131
..... new muscles of, 177
..... stricture of, external incision, fatal case of, 200
..... calculus in, case of, 153
Uric acid in the blood, in health and disease, 105
..... remarks on Dr. Garrod's paper on, by Dr. D'Alquen, 146
Urine, chylo-serous, case of, 240

V.
Vaccination question, observations on, 254
Vagina, total absence of, 160
Van Diemen's Land, climate and diseases of, 58
Van Helmont, 257
Vision, increased power of, case of, 140

W.
Walton, H., Esq., letter on excision of the head of the femur, 39
Water supply of London, commission of enquiry into, 118
Wearne, J. Esq., letter on the proposed new College, 86

Y.
Yellow fever in Brazil, account of, 190

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ORIGINAL LECTURES.

LECTURES ON HISTOLOGY.

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS, LONDON.

By J. T. QUEKETT, Esq.,

Assistant-Conservator of the Hunterian Museum.

Gentlemen,—I am happy in again appearing before you in compliance with the appointment of the Council of this College, to contribute my aid towards the furtherance of the objects of science and the advancement of our noble profession.

The subjects of which I have to treat, although connected with the ultimate elements of organized beings, are nevertheless of the highest importance to anatomy, physiology, and pathology, upon a correct acquaintance with which must mainly depend the successful practice of the healing art.

The natural desire of man to arrive at some knowledge of the structure and mode of formation of the bodies by which he is surrounded, and the increased facilities afforded by that powerful auxiliary the microscope, have not only enabled him to gain some general ideas of the elementary parts both of vegetables and animals, but the results of his inquiries have been so numerous and important as to demand for them a new place in the nomenclature of science under the name of Histology—a term derived from ἱστος, a tissue or web, and λογος, a discourse.

Among those who have employed the microscope not only with the greatest assiduity, but with the utmost benefit both to science and their fellow-creatures, have been the members of the medical profession. It would be foreign to my purpose to point out the many advantages of the knowledge of the intimate structure of organized bodies, both in a state of health and disease, as this must be fully shown, not only by the publications of the day, but by the increasing demand in all parts of the globe for this kind of instruction.

In order to keep pace with the times, the Council of the Royal College of Surgeons, with their usual liberality and anxiety to further the advancement of the medical and collateral sciences, have not only formed a museum of histological anatomy, but have instituted these annual demonstrations, and still further endeavoured to aid their members and others residing at a distance in this branch of inquiry, by the publication of a descriptive and illustrated catalogue of the preparations in their possession. The first volume, containing a description of 1200 specimens, upwards of one third of which are illustrated, is now published, and the remaining volumes, four in number, will follow at subsequent periods.

However striking at first sight the difference between plants and animals may appear to be, yet, when studied as a whole, they will be found gradually to approach each other in their lowest grades, until they meet at length in one common centre, viz., a simple or individual cell. At this point, all means of distinction between the vegetable and animal organism end, and no feature exists which, in the present state of science, can enable even the most distinguished microscopist to determine to which of the two kingdoms the individual cell belongs, since it possesses characters common to both. To settle this question has been a labour of years, and zoologists, botanists, and chemists have each in their turn endeavoured to lay down some decisive characters by which animals and plants might be distinguished.

In the early days of natural history, the power of spontaneous motion and feeding by a stomach, were the ascribed attributes of the animal; now, however, it is well known that certain of the confervæ possess one of the abovementioned characters, viz., the power of locomotion, while the sponges and some of their congeners are destitute of both these attributes. The chemists considered the presence of nitrogen in animal textures to be sufficiently conclusive, but this element has since been found largely in plants; the only compound unknown in the animal kingdom is *starch*, and this is stated to be universally present in the vegetable. The histologist's aid has, as I have stated, been equally unavailing in solving the difficulty, since an appeal to the highest powers of the microscope has only rendered the problem more complex by the discovery of a *common* element, in place of a *distinctive* character; we find a cell to be the starting point of both: hence the necessity of bringing before your notice the structure and mode of growth of the cells in vegetables, which will be an important guide towards the understanding of those found even in the most highly organized animals.

The most simple plants are those denominated cellular, on account of their consisting either of simple cells or of masses of the same; as examples, we may mention the algæ, fungi, and lichens. In such plants there is no distinction between stem and leaf, and they are perfectly destitute of all trace of flowers; among the algæ are many genera to the possession of which both botanist and zoologist, respectively lay claim. In the highly organized plants the structure is more complicated, and their elementary tissues, from the variety of form which they present, have been divided into cells, fibres, and vessels; but modern investigation has proved that the vessels are merely modified or elongated cells, and that fibre is a deposit upon the internal surface of the cell wall.

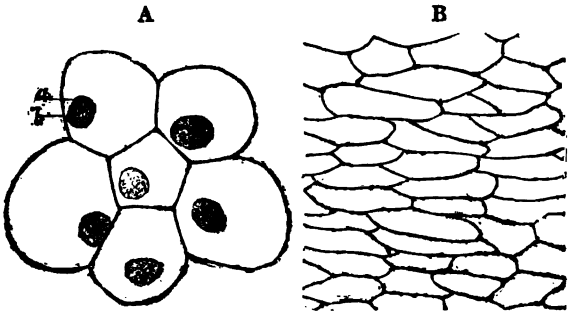
The higher orders of animals exhibit a much greater variety in their external form than those of plants, and their tissues are more numerous, and by far more complex in structure; but, however much, when perfectly developed, any one animal tissue may appear to have departed from the cellular form, it will, if studied in its embryonic state, be found to have had its origin in cells analogous to those occurring in vegetables.

The first part of the present course will be devoted to the demonstration of the more important vegetable tissues, the second to those of the animal body, and, as far as is practicable, the arrangement adopted in the histological catalogue will be adhered to; by this plan, two objects will be gained, a text-book will be furnished to assist your studies, and an opportunity afforded you of viewing the principal preparations therein described.

HISTOLOGY OF VEGETABLES.

It is now generally considered by vegetable physiologists that, with the addition of an intercellular mucus or *cambium*, all plants are made up of a membrane existing in the form of cells or utricles, having as an organic basis a tough insoluble material termed *cellulose*. Membrane, therefore, is regarded as the sole element of plants. Some years since, fibre was also enumerated as an element, but more recent observation has shown that this is always subsequently deposited on the inner surface of membrane.

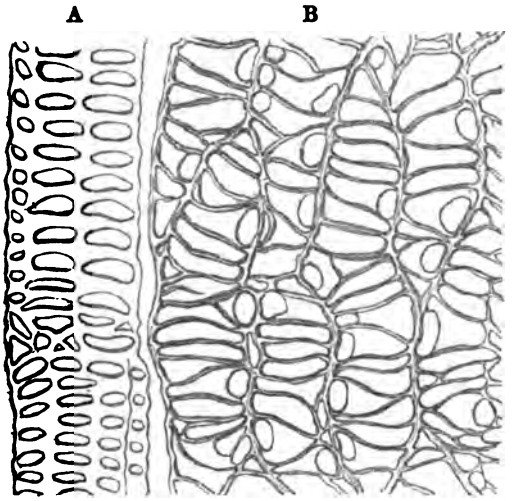
Membrane in its earliest stages is thin, transparent, and structureless, as shown in this specimen of the outer membrane of the seed of a *Gourd, Fig.* 1, B, or in A, which repre-



sents cells obtained from the young flower-stem of a *Leek*. It is generally colourless, or has a greenish white hue; in some cases however, as in ferns, it is brown. The beautiful and varied colours of the corollæ of flowers are not dependent upon the membrane composing the cells, but on the colouring matters which, mostly in a fluid state, are contained in their interior; membrane is also, at the stage at which I am describing it, entirely free from visible pores, although fluids readily pass through it by endosmosis and exosmosis; and, notwithstanding many cells and vessels, hereafter to be described, have their walls studded with dots and apparent foramina, yet the membrane is always present, although in some cases it is so excessively thin, that it cannot be demonstrated unless it be charred or stained of a brown colour by the application of tincture of iodine.

Examples are, however, often found in which the cells or vessels are old and dry, and in which the membrane

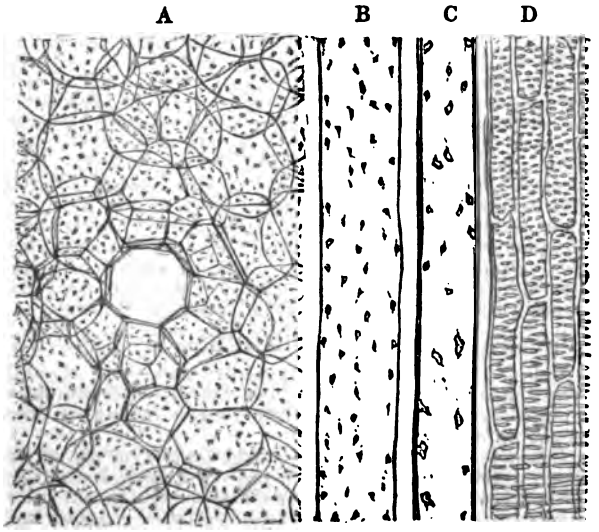
has disappeared, and holes have been left; such is the case in this vessel from a *Balsam*, *Fig* 2, A, which I



submit to your inspection. There is, however, one genus of mosses, that of Sphagnum, in which true foramina are found in newly developed cells; these, which are shown in *Fig*. 2, B, are of a fusiform figure, having a spiral fibre within them, and exhibit a series of holes on either side, which were first described by Mr. W. Valentine, and of their truly perforate nature I have satisfied myself by observing in the young plant, when growing in water, infusoria passing in and out of the cells through these apertures.

In process of growth, the thin membranous cell-walls become thickened by the deposition of new matter either on their external or internal surface, more frequently the latter. The deposit is termed secondary, and, according to Schleiden, mostly assumes a spiral form. It is generally considered, that if the deposit take place before the cell has completed its growth, its form will be that of a spiral fibre or band, in consequence of the cell wall elongating or growing faster than the deposition takes place within; but that, if the deposit supervene upon the complete growth of the cell, it may then so happen that certain parts may be left uncovered by the deposited material, and pores, or pits having the appearance of pores, are thus produced. We have striking examples of cells containing spiral fibres, or bands, in many plants, especially the Orchidaceæ, as in the *Pleurothallis*, two cells from the leaf of which are shown in *Fig*. 4, E F, and in some elongated cells from the stem of a *Balsam* in *Fig*. 4, B.

The other form of deposition is more common, and is well exhibited in its earliest stage in the two specimens of the root of *Marchantia polymorpha*, in *Fig*. 3, B, C, or in A,

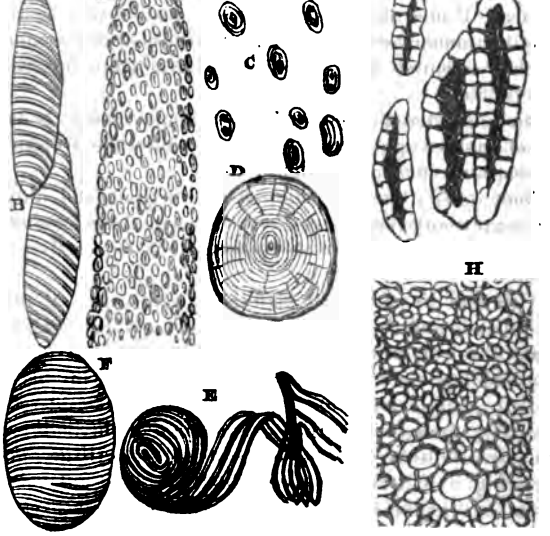


which is a representation of the cells forming the pith of the *Elder;* the same fact is strikingly shown in the plant furnishing the Rice paper, or in the *Vine*, as at *Fig*. 3, D; or it may be seen to still greater advantage in the elongated cells known as porous or dotted ducts, examples of which are readily obtained from the *Alder*.

In all these specimens there are no apertures in the membrane or cell-walls; but in the case of some old cells from the stem of a *Balsam*, as shown in *Fig*. 2, A, the membrane has been destroyed, and holes are left. This destruction of the cell membrane is particularly evident, both in the cells and vessels of many specimens of fossil wood, which no doubt before being silicified, had undergone some slight decomposition. There are two preparations described in the Histological Catalogue, H 58-59, in both of which the membrane has been destroyed. In the one a series of oval holes, and in the other only an irregular hexagonal network, indicate the original porous type of the vessels.

Membrane may also be thickened by a deposit so dense as nearly to resemble bone, we have examples of this in the stones of the plum, peach, cherry, &c., and more especially in a nut known as vegetable ivory; this hard material has been named *sclerogen* by Turpin; it may occur in a homogeneous form, or in concentric strata, but the deposit is rarely if ever sufficient to fill the cell entirely, a central cavity, with radiating canals or pores, usually remaining, which, upon section, resembles one of the corpuscles of bone; but in these vegetable sclerous tissues the radiating canals never pass beyond the walls of their proper cells—never anastomose with those of neighbouring cells. The thickening of the walls of cells is well shown in the transverse and vertical sections of one of the scales of the cone of *Pinus Webbiana*, represented in *Fig*. 4, G H, in both of which the pores radiating from the central cavity, and proceeding as far as the cell-wall, are distinctly seen; in *Fig*. 4, D, is shown a large woody cell from the Snake-wood, in which the deposit has taken place in concentric strata.

The specimens now brought before you have all been instances of deposit on the internal surface of membrane; examples, however, are not wanting in which the deposit has taken place on the external surface, but these are rare in comparison with those illustrating the former mode of deposition; in the hairs from the fornix of *Anchusa italica*, a portion of one of these is represented by *Fig*. 4, A;



the outer surface of the thin violet-coloured membrane is studded with oval tubercles, some of which are shown in *Fig*. 4, C; these were first pointed out by Schleiden. In a portion of cuticle taken from an Aloe, the tubercles are so much larger as to give the membrane a rough appearance even to the naked eye.

[To be continued.]

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CLINICAL LECTURE ON SURGERY,

AT

ST. BARTHOLOMEW'S HOSPITAL.

By EDWARD STANLEY, F.R.S.

DIFFUSED ENCEPHALOID DISEASE IN THE FOREARM.

The first case, gentlemen, to which I shall call your attention, is that of a young female recently in the hospital suffering from obscure disease, seated among the muscles of the forearm.

Case 1.—Mary B—, aged 24, dress-maker, a healthy looking girl from the country, states, that eighteen months ago she accidentally discovered a diffused and painless swelling over the front of the left forearm. About nine months ago, in consequence, as she supposes, of some sudden movement of the limb, the swelling became the seat of sharp lancinating pains, and rapidly increased in size. The pain is especially severe at night, although all the movements of the forearm are now attended with suffering. For the last three months she has been unable to extend her fingers, and a small portion of the skin over the tumour has become red and discoloured. Admitted into the hospital August 14, 1850. A soft elastic swelling occupies the front and middle of the forearm from the wrist to within a short distance of the elbow; at one point the skin covering it is thin and slightly discoloured; the fingers are either fixed or semiflexed; severe darting pain shoots through the tumour.

An impression that the disease might possibly consist in an accumulation of fluid in the sheaths of the flexor tendons led to its treatment by iodine and blisters, but no diminution in the tumour ensued. As her health suffered from confinement, she left the hospital and went into the country, but returned at the end of two weeks, on account of the increasing size and more painful condition of the tumour. Fluctuation in a prominent part was now evident; the integuments were of a dark red colour, thin, and painfully distended. Under these circumstances I made a free incision into the tumour, when there issued forth about three ounces of dark coloured fluid, which we ascertained to be nearly purely blood.

She was ordered to be kept perfectly quiet in bed, to have bread poultice applied to the wound, and to take five grains of soap and opium pill at night time.

Some relief from pain followed the incision, and during the next twenty-four hours there was a continual oozing of dark blood, amounting in all to about four ounces, from the wound.

Although the patient was kept in bed, with every attention to quietude and the easy position of the arm, the oozing of dark blood continued, in varying quantities, for several days, and amounted upon one occasion to six ounces. This made so serious an impression on her system, that I considered it necessary to make a further examination of the limb, with the view of discovering the source of the hæmorrhage, and of arresting it if possible. Accordingly I made an incision about four inches long through the skin and fascia over the middle of the swelling; the flexor muscles, thus exposed, appeared healthy; but, on further examination, a cavity was found filled by soft substance beneath the muscles, and extending deeply through the interosseous membrane between the radius and ulna to the back of the forearm. Part of the soft substance beneath and between the flexor muscles consisted of clots of blood, but there were intermixed whitish fragments of a different material, which to the eye presented the character of encephaloid deposit. That we might have all possible evidence as to its nature, it was instantly examined under the microscope, and pronounced by the most competent authority to be cancerous. Under these circumstances the only advice that we could give the patient was, that she should submit to the removal of the forearm; but to this she resolutely would not assent; some lint was therefore placed in the wound, and in a few days afterwards she left the hospital.

She has since been seen by Mr. Ludlow, my house surgeon, who found that "part of the wound had healed, but that the rest of it gaped, and still discharged dark-coloured blood. The original tumour had decreased in size, but swellings had appeared above the wound near the elbow, in the palm of the hand, and in the sheath of the forefinger."

Remarks.—The case here related affords an example of the difficulty experienced in the diagnosis of diffused encephaloid disease. The deposit of soft brain-like substance between the muscles, or between the fascia and the muscles, in any region of the body, gives rise to a soft and elastic swelling of the part not well defined, and unaccompanied by pain, except when bound down by a dense fascia. Such swellings in certain regions of the body have closely resembled accumulations of fluid in bursal sacs and synovial sheaths. In one such instance which I saw, the first and enduring symptom was severe pain, unaccompanied by swelling, in the centre of the sole of the foot. For three or four years the patient, a young lady, had been treated for neuralgia. At length there appeared at the seat of pain a fulness, which proved to be occasioned by a soft semi-transparent substance diffused through the structures of the sole of the foot. And in the case of a female, 30 years of age, who some years since was a patient of mine in the hospital, it seemed well made out that diffused encephaloid disease in the sole of the foot had been nine years in progress; for through this long period she had suffered severe pain, with gradually increasing swelling through the entire length and breadth of the part. The disease was evidently seated beneath the plantar fascia, yet, from its softness and elasticity, it was thought there might be some fluid accumulated beneath. Accordingly I pierced the swelling with a grooved needle, but only a drop of blood escaped. At length the integuments of the sole ulcerated near the heel, and a bleeding fungus sprouted forth, from which repeated and profuse hæmorrhages occurred. The leg was then amputated by my colleague, Mr. Lloyd, under whose care the patient had become placed. Upon the examination of the foot, soft white encephaloid substance was found diffused through the entire sole, occupying all the interspaces of the muscles and tendons.

In illustration of the difficulty that may arise in the diagnosis between encephaloid and bursal diseases, I will relate the following case. I amputated the limb of a young lady in whom three years previously a swelling commenced in the lower and back part of the leg, and thence extended downwards over the inner side of the ankle into the sole of the foot. In the leg, the swelling was situated between the tendo-Achilles and the flexor tendons, and in the foot it extended beneath the plantar fascia. Various opinions had been formed of the nature of the disease; some thought it to be a malignant growth; others thought that it consisted simply in an accumulation of fluid in the sheaths of the flexor tendons. At length amputation of the limb was deemed a right measure; and upon examining the swelling, I found it to have been occasioned by a mass of loose lobulated soft substances lying in contact with the flexor tendons, and growing from the inner surfaces of their sheaths. These substances exhibited peculiar characters; they closely resembled in their aspect the lobes of the thymus gland. They were minutely examined, but exhibited no trace of malignant structure.

PAINFUL SUBCUTANEOUS FIBROUS TUMOUR.

Case 2.—A man aged 24, of healthy appearance, of a full robust habit, and active habits, was recently admitted under my care, on account of a small but acutely painful swelling on the inside of the knee.

Immediately beneath the skin of the inner condyle of the femur we felt a firm and moveable tumour of oblong figure, and in size between that of a pea and a horse-bean. Immediately around it the cutaneous vessels were somewhat enlarged and

tortuous. So extremely tender was it, that when but slightly touched most acute pain was instantly felt, extending up the front of the thigh to the groin, and down the inside of the leg to the ankle, accompanied by convulsive shakings of the whole extremity. He stated that he first observed the tumour about six months ago, and that it had not lately increased in size.

The question to be decided was, whether this small subcutaneous tumour was the cause of all the severe pain experienced by the patient. As the removal was easy, I determined upon its immediate extirpation, which was done, the patient being rendered insensible by chloroform. A section of the tumour exhibited a firm texture of greyish white colour, with fibres running through it. A microscopical examination by Mr. Paget showed the tumour to be composed of fibro-cellular tissue, the fibres closely interwoven, and without any definite arrangement. But, on the closest examination, nothing of the character of nerve fibre could be detected in any part of the outer surface or interior of the tumour. Nothing was discovered to explain its sensitiveness, and the neuralgic pains of which it had been the cause. Nor need it be supposed that the painful character of the tumour was owing to any pressure it made on the internal saphenous nerve, for it was situated at some distance from the nerve.

The excision of the tumour was not immediately followed by relief from the pains in the limb. The wound suppurated, and it was not until cicatrization had commenced that the patient became really easier. The pain then diminished progressively, and on seeing the patient some time after the healing of the wound he was found to be perfectly well.

Case 3.—In a middle-aged man, a small, firm, and moveable subcutaneous swelling formed in the upper part of the popliteal space close to the insertion of the semi-membranosus muscle. It was of a roundish figure, of the size of a horse-bean, and had existed between six and seven years without undergoing change or occasioning inconvenience. Within the last few months severe pain had come on affecting the entire limb in various directions, but extending more especially along the course of the ischiatic nerve and its branches. The pain, which was very severe, was of the neuralgic character; it was not constant, but frequently recurred, suddenly darting along the back of the thigh, down the leg into the sole of the foot. The tumour itself was sometimes sensitive, at others not; on one occasion of my gently pressing it, there instantly followed a shaking and starting of the whole limb, as if it had been electrified. One feature of this case was remarkable, viz., the most severe attacks of pain were in parts far away from the tumour; nor did these attacks always distinctly originate in the tumour; indeed, the pain was often most severe, while the tumour was free from uneasiness. Under these circumstances, we could not exactly say whether all the pain in the limb was referrible to the tumour, and whether its extirpation would be followed by complete relief. However, I removed the tumour, as it lay immediately beneath the skin, loose in the adipose tissue of the ham. A white cord, connected with the opposite ends of the tumour, at once suggested the idea that a nerve entered it at one end, and passed out at the other, and microscopical examination confirmed the idea. A section of the tumour exhibited in its interior a soft yellowish-brown substance, not so distinctly fibrous as the tumour removed from the knee in the case before described.

From the day on which the tumour was excised, the neuralgic pains began to subside, and continued to do so to the time when the wound was completely healed. The patient was then so perfectly free from uneasiness in the limb as to make it certain that the little subcutaneous tumour had been the sole cause of the severe suffering he had endured.

The two foregoing cases are usefully placed together as examples of the varieties of painful subcutaneous tumour. In both, the tumours may be represented as fibrous or fibro-cellular; but, in the one case the tumour was distinctly connected with a nerve; whilst in the other, no nerve-fibre could be detected either upon the exterior or in its substance; yet, in both cases there was the accompanying neuralgia. Moreover, it is worthy of notice, that in the case where the tumour had apparently formed in a nerve, the attacks of pain were so severe in distant parts of the limb, the tumour itself being free from uneasiness, that it really was uncertain whether the whole of the suffering which the patient endured could be attributed to the tumour, and whether, therefore, its excision could be recommended, with the expectation of the patient obtaining a perfect cure.

ORIGINAL COMMUNICATIONS.

OPERATION FOR STRANGULATED HERNIA IN PERSONS OF ADVANCED AGE.

By H. W. LIVETT, Esq., M.R.C.S.

Betty Masters, aged 76, residing at Westbury, four miles in the country, sent for me at two o'clock p.m on the 12th March, 1847. I found her labouring under the usual symptoms of strangulated hernia. The rupture was inguinal, of large size, and had existed many years: she had been unable to return it as usual for twenty-four hours. The taxis was applied unsuccessfully, and, after cold applications to the tumour, again tried after an interval of some hours. The next morning, the 13th, a medical friend visited her with met and, after fruitless attempts at reduction, I operated without further delay. Nothing particular occurred during the operation save much more than the usual difficulty in returning the bowel after division of the stricture, owing to adhesions. The whole was at length returned; it consisted of intestine only; the sac was opened, and very little blood was lost. Her pulse was very low, and she was much depressed; she had brandy twice, during and immediately after the operation, and was ordered beef tea in small quantity every two or three hours. No aperient was given.

14th.—10 a.m., pulse still very low, but in other respects doing well: no pain or tenderness, sickness relieved, but bowels not yet open. Ordered a dose of castor-oil to be taken in the evening, if necessary; beef tea continued as before.

15th.—Bowels were opened last evening without use of castor-oil, and she has had two copious motions this morning; she is very depressed; no symptom of inflammation. Ordered wine ʒij. every two or three hours, with nourishment as before. Vespere; pulse risen; less general depression; doing well.

From this time she continued to improve. On the 21st she sat up, and in a few weeks returned to her usual avocations. I saw her a short time since, when she told me that she had entirely left off her truss; the operation had performed a radical cure.

Case 2.—Sarah Jenkyns, aged 79, of spare habit, otherwise hale. On Nov. 14, 1850, I operated on this woman for femoral hernia of thirty years' standing. The tumour was of large size, and extended transversely across the groin, doubling over Poupart's ligament, and had been partially irreducible for some years. Symptoms of strangulation had existed for thirty-six hours, attended with much prostration of the powers of life. The sac was opened, and the stricture with some difficulty relieved. A small knuckle of intestine was so tightly compressed by the neck of the sac, that the bistoury could only be used after drawing down a portion of this swollen and infiltrated bowel. Part only of the contents of the sac was returned; the rest, intestine and omentum, being firmly united to the surrounding fascia, and completely irreducible. This patient had been taking calomel and opium previously to the operation, and a small dose of castor oil was directed to be given in four or five hours: beef-tea was taken at intervals, and in ten hours the bowels were relieved twice in quick succession. Wine was ordered as in the former case, and heat applied to the lower extremities, which were very cold. She soon began to rally, and on the third day was allowed some solid meat with wine; by the sixth, the external wound was healed, and she left her bed. She is now, Nov. 30th, fast regaining her usual strength, and will wear a truss with a hollow pad to suit the tumour. The incision in this latter operation was that recommended by Mr. Liston, which I found well adapted to the case of so large a tumour.

On making some remarks, a few days since, to a professional friend upon the latter case, he put into my hands for perusal a paper written by Mr. Curling, of the London Hospital, upon the subject, and I have been led to publish the foregoing cases in confirmation of the correctness of the views entertained by that gentleman,(a) considering, moreover,

(a) Vide *London Journal of Medicine*, No. 18.

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that any practical contribution, however small, to the common stock of professional knowledge, may have its use. In the paper referred to, Mr. Curling advocates the use of nourishment and even stimulants at an early stage of the treatment after operation for hernia in old people; and certainly it appears that inflammation is not in such cases so much to be dreaded as sinking; and, bearing this in mind, I do not consider the operation so much to be feared in persons of advanced age. Certainly the mortality in such is great. Mr. Curling states that in fifteen cases, (out of a table of 208) in which the operation was performed in the hospitals of London, on individuals of the age of 70 and upwards, only four recovered. Still, when the operation is performed early, before the powers of life, already weak, are much depressed by the usual concurrent symptoms of strangulation; when aperients subsequent to the operation are cautiously and sparingly administered, or even altogether avoided, and when, in fact, our treatment is directed to the sustaining of enfeebled powers rather than to prevent inflammation, I think that advanced age should not, *per se*, induce us to form an unfavourable prognosis in such cases, or lead us to hesitate in using the only means in our power to prolong life, when, even although it may have extended beyond the usual term, it may still be of value to its possessor and his family.

Wells, Somerset.

DIAGNOSIS AND TREATMENT OF PULMONARY CONSUMPTION.

By JOHN HUTCHINSON, M.D.

Assistant-Physician to the Hospital for Consumption and Diseases of the Chest.

[Continued from last Volume, p. 253.]

No. IV.

TREATMENT.

We believe it will be generally found, that where "much is said, but little is known;" and if our observation is correct, surely those judicial trials are longest which are most obscure.

Touching the remedial measures for treating that devastating disease,—pulmonary consumption, it may be safely said, that volumes upon volumes have appeared during the last 150 years, not only upon the treatment, but upon the "*cure of consumption.*" Some have chiefly directed their attention to the active, and others to the passive, stage, whilst others again have preferred a middle path, and have, consequently, combined *all* means together. There have been, at different times, recommended acids and alkalis—rich diet and spare diet—tonics and cathartics—inhalations and emetics—sedatives and stimulants—dry air and moist air—heat and cold—exercise and rest—oxygen, hydrogen, nitrous oxide, and carbonic acid gas, together with all the preparations of iron and mercury—sulphate of copper, arsenic, &c., &c. Yet we cannot say that the cure of consumption has as yet been brought home to us. Every author upon this subject has thought that he lived in the epoch of "*cure;*" and, indeed, it is not a little difficult to write upon any disease without being tempted to suppose our own age the truly enlightened one, forgetting that in future periods our wisdom may probably be counted as foolishness; just as we now view many a theory not yet fifty years old.

We may observe, however, that in the treatment of pulmonary consumption, good air, *i. e.*, pure air, warm clothing, nourishing diet, and regular hours, are absolute essentials in the treatment; and that close and confined situations, ill-ventilated chambers or localities, hot-pipe or stove-heated rooms, irregular hours, and deficient nourishment, are the very worst conditions for our patient. There is not a greater mistake among mankind than the belief, that an atmosphere warmed by a stove is, by its equable temperature, therefore proper for the respiration of consumptive patients. One of the keepers in the Regent's Park Zoological Gardens remarked to us,—"*Stove air breeds consumption* in our animals, particularly in the monkeys;" and, consequently, such heating is no longer employed in those gardens. Indeed, the common open fire-place, when properly constructed, is *more* efficient for warming than any hot-air contrivance.

Vocation is another point to be inquired into; this we have less under our control; yet much may here be done for the good of the patient, with a little attention to the common *regulations* of hygiene. If such points as these are not attended to, medicine can do little good, or, at least, we have to contend against greater difficulties.

We have noticed, that the most striking symptom of consumption is, to "waste away," (*consumo,*) and that the most remarkable medicine of the day, for increasing the weight, is cod-liver oil; therefore this oil has forced itself upon us as the great remedy. We do not despise the labours of our fathers, for they taught us what we ought not to do—a valuable lesson in the practice of medicine. The value of cod-liver oil in arresting consumption, presents itself to us in so striking a manner that we wonder what we should do without it. Take this medicine away from us, and we affirm that we would not face our hospital patients for a single day. Again, with every new case, the first thought presenting itself (and thoughts will come) is, can oil be given here? And should we find that it cannot, we try it in combination with other liquids, or recommend the cod's liver to be eaten as a meal: thus we fight the disease with activity, yielding our ground only inch by inch; and when quite beaten off that ground, we feel that with this medicine, our weapon is gone, and we learn the common lesson, that cod-liver oil, like other medicines, cannot be taken by everybody. Happily for us, as well as for the patient, it can be taken by the majority, and though there may be in some of these a repugnance to it at first, yet, by perseverance in small doses of ʒj., the system is induced to receive it kindly.

We are so convinced of the utility of this medicine in consumption, that we believe even if it were given without discrimination or judgment in 10,000 consecutive cases, more benefit would be derived from it by the mass than if we were deprived of it, and allowed instead the most careful consultations and the command of all the other medicines in the Pharmacopœia.

What the oil will ultimately do, time alone can show, and therefore we shall not venture an opinion; but hitherto experience has demonstrated that it arrests the disease both when the lungs are densely infiltrated with tubercular matter and when cavities are present. For its effect upon 542 cases, we quote a table from the hospital report, (First Med. Report of the Hospital for Consumption and Diseases of the Chest, London, 1849, p. 39,) which fixes the question beyond the limit of mere speculation.

TABLE I.

Effect of the Cod-Liver Oil on 542 Cases of Consumption, relative to the Stage of the Disease, Age, and Sex of the Patient.

Results.	First Stage.										Second and Third Stages.										All Ages.	
	Under 15.		15 to 35.		Over 35.		Total.		Per Cent.		Under 15		15 to 35.		Over 35.		Total.		Per Cent.		All Stages and Both Sexes.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.	Per Cent
Improved	10	4	99	49	28	11	137	64	72·1	62 1	2	4	58	54	14	9	74	67	53·2	60·9	342	63·1
Arrested	3	4	30	23	1	2	34	29	17·8	28 1	0	4	18	11	2	0	20	15	14·3	13·6	98	18·1
Not Improved	0	0	14	8	5	2	19	10	10·0	9·7	2	1	31	25	9	2	45	28	32 8	25·4	102	18.8
Total	13	8	143	80	34	15	190	103			4	9	110	90	25	11	139	110			542	

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Or, to place the effect of this medicine more conspicuously in view, we arrange it as follows :—

TABLE II.

Deduced from the last Table.

Results.	First Stage.		Second and Third Stage.	
	Male.	Female.	Male.	Female.
Total Number	190	103	139	110
Per Cent. Improved	72	62	53	60
Do. Arrested	17	28	14	13
Do. Not Improved	10	9	32	25
Do. Improved and Arrested	89	90	67	73

Therefore the benefit to the non-benefit of cod-liver oil in consumption is as 319 to 76; and if we express the arrest of this disease in the total cases in the hospital without the oil as 5, with the oil it is as 18.

The striking property of the oil increasing the weight in the majority of the cases, is shown in Table III., as below.

If all these 219 persons had been left to the ravages of phthsis, the whole would have lost weight; but by taking cod-liver oil 47 only lost weight, and 153 gained weight. The chances here shown in favour of the oil is as 78 to 21 in *all* the stages; and we may say in this proportion the cases were improved, though there is a slight difference of opinion whether the improvement was exactly in this ratio. "The amount of the increase varied, being in some patients little more than one or two pounds during several

TABLE III.

Of the Gain and Loss of Weight in 219 *Consumptive Patients treated with Cod-Liver Oil, arranged after the manner of Table I.*(a)

Result by Weight.	First Stage.										Second and Third Stage.										All Stages.	
	Under 15.		15 to 35.		Over 35.		Total.		Per Cent.		Under 15.		15 to 35.		Over 35.		Total.		Per Cent.		All Ages. Both Sexes.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Total.	Per Cent
Gained	8	2	50	20	12	3	70	25	73·6	67·5	1	3	22	18	10	4	33	25	51·1	64·1	153	69·8
Lost	0	0	8	8	0	0	8	8	8·9	21·6	0	0	13	6	6	6	19	12	29·1	30·7	47	21·4
Stationary	2	1	7	3	2	0	11	4	12·3	10·8	0	0	2	1	0	1	2	2	3·7	5·1	19	8·6
Gained and Stationary.	10	3	57	23	14	3	81	29	90·9	78·3	1	3	24	19	10	5	35	27	64·8	69·2	172	78·4
Total	13		96		17		89				4		62		27		54		39		219	

months, whilst in many the average increase was from one to two pounds weekly during several weeks. Some very remarkable instances of great increase of weight have presented themselves,—thus, in one instance, 41 lbs. were gained in 16 weeks; in another, 19½ lbs. were gained in 28 days, and 10 lbs. in the succeeding 10 days; in another case, 29 lbs. were added to the patient's weight in 31 days." "An melioration of the symptoms did not invariably follow an increase of weight, though the exceptions were rare." "In other cases where the melioration was still more considerable and the progress of the disease appeared to have been stayed, relapse occurred, and was followed by a rapid progress to a fatal issue." "An aggravation of the symptoms and a diminution of the weight were almost invariable coincidences." "In a few cases the symptoms improved, though the weight remained stationary, or even became slightly diminished."—*(Ibid*, p. 41.)

It is worthy of remark, that in many cases included in the 18 per cent. as arrested (Table I.), they felt themselves as well as they had been before the attack of the disease, and few of these patients returned to the hospital again; therefore it is not unfair to presume that their "improvement was permanent." It is the opinion of the officers who drew up this report, in expressing their opinion upon the value of cod-liver oil, that it "possesses the property of controlling the symptoms of pulmonary consumption, if not of arresting the disease, to a greater extent than any other agent hitherto tried."—*(Ibid*, p. 41.)

We have noticed that this medicine may be tried in any stage of the complaint, or rather we should say, in any stage of pulmonary disorganisation.

An opinion has been entertained, that the administration of cod-liver oil causes a recurrence of hæmoptysis; this impression does not gain ground in our opinion; but the question is not easy to answer, because hæmoptisis is of such frequent occurrence, particularly in the early stage of the disease. The oil certainly does not excite diarrhœa nor hectic fever; probably, by a continuance of it for many weeks, with inattention to the bowels, temporary hepatic derangement may manifest itself; but, unless these symptoms supervene, it may be tried at any time, even when there is a preternatural heat of the skin and quickened respiration. There is one case now under our care, a child about 11 years of age, who appears to be at the eleventh point of the last stage. She has for many weeks past taken *nothing* but cod-liver oil for her daily food, her bodily sustenance, and support. She is a perfect object of emaciation, of pulmonary disorganisation, and prostration of strength.

We commence the oil in small doses of ʒj. three times a day, and seldom exceed ʒiv. per dose; in fact, we do not think that the benefit to be expected is relative to the extent of the dose; we have seen a man gain 28 lbs. in weight on the small dose of ʒj. three times a day. The stomach is apt to reject a large dose; indeed, common is the rule, that a uniform effect of a medicine is not commensurate with the extent of the dose: a speck of vaccine virus saves a man from small-pox.

In some few cases in our hospital it has been given to the extent of ʒiss. for a dose. The oil used is of a straw colour, transparent, and free from all offensive smell; children take it easily. Darker coloured oils will have the same effect, but they are offensive, and patients consequently object to them. The oil is often taken in simple water, camphor water, or any aromatic water or bitter infusion, or in milk; when it cannot be taken in this way, it can often be tolerated as a mixture of ʒj. of the liq. potassæ, or ʒij. of the pulv. tragacanth. to ʒiss of the oil in ʒviss of peppermint or anise-water,—an ounce of either mixture being taken three times a day. Such will often remain in the stomach when the other forms cannot be taken. When none of these can be borne, benefit is sometimes derived from a mixture of ʒiss of spermaceti to ʒij. of tragacanth and ʒvj. of pimento-water, administered in the same dose. When the oil has been taken for some time, and a repugnance on the part of the patient suddenly arises against it, some simple "cough mixture" will "do wonders" in keeping things quiet for a time, when the oil can be again resumed. We have known the oil to be taken three times a day for nine months without any intermission.

There is one common question which we ask, "How do you rest at night?" and as common almost is the answer, "I cannot rest at all for coughing." We make it a rule to quiet the cough and to command sleep; for, if the patient cannot sleep, hectic symptoms may supervene, and little good without rest can ever be expected from the oil or any other medicine. Anodynes of some kind are consequently resorted to,

(a) *Ibid*, p. 40.

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and often gr. iv. of the extract of hemlock, with gr. ss. of ipecac., and gr. ½ of muriate of morphia at bed-time; or indeed we prefer a pill of gr. ½ or gr. ¼ of muriate of morphia at bed-time, increasing the dose as may be found needful. We try to give as little opium as possible, but the cough must be quieted, and sleep must be obtained.

The next important point is counter-irritation. We are convinced that it is a most valuable measure to keep up external irritation on the thoracic region. How often do we see in practice, that the closing up of some old discharging wound immediately excites phthisis,—the counter-irritation being removed, the latent phthisis manifests itself; and how rarely do we see (as Dr. Cotton noticed to us) skin disease associated with phthisis; indeed, we are glad to see a "rash break out" in a consumptive case. We sometimes produce counter-irritation with cantharades, but we prefer a solution of iodine, as ʒi of iodine and iodide of potass. to ʒii. of rectified spirit of wine, laying it on with a piece of sponge on the end of a stick; and this may be done in a few seconds of time. This immediately sets up an irritation in the skin. We use it freely upon either sex, first upon one and then upon the other side of the chest, even if one lung only is affected. Counter-irritation should only be employed when the system is quiet. We have now noticed four great points in the treatment—to increase the weight, to sooth the cough, to procure rest, and to set up counter-irritation: this is what we try to maintain; but, unfortunately, so many collateral symptoms lie as it were ready to present themselves, when we think things are going on quietly, that any regular course is always liable to be interrupted, so many and so complicated are the peculiarities; in truth, we may say no two cases are alike, so that every modification of treatment is at times required, and this, in a sketch like the present, we cannot consider. For instance, if hectic fever supervenes, neither cod-liver oil nor counter-irritation can be continued, and the case must now be met accordingly; again, when commences we commonly suspend the oil, and always so when hæmoptysis appears.

Hæmoptysis is very general, probably more so than any other symptom excepting cough.

TABLE IV.

Presence or Absence of Hæmoptysis in 1381 *Cases.*

	Males.	Per Cent.	Females.	Per Cent.	Total.	Per Cent.
Hæmoptysis ...	563	61·9	307	65·2	870	63
No hæmoptysis	347	38·1	164	34·8	511	37

There is reason to think it is more commonly present than 63 per cent. (*Ibid*, p. 27). Sinking the effect of age, it appears equal in the two sexes, but not so when we bring that element into the calculation, as may be seen by the following Table:—

TABLE V.

The Effect of Certain Ages upon Hæmoptysis, upon 1084 *Cases,* (*Ibid*, p. 29.)

Years of Age.	Hæmoptysis occurred.		Total Cases observed.		Hæmoptysis per Cent.	
	Males.	Females.	Males.	Females.	Males.	Females.
0 to 25	303	201	478	301	64·0	66·8
25 to 45	147	42	228	77	64·5	54·6
25 to 45	131	139	230	193	57·0	72·0
25 to 45	290	94	409	161	70·9	58·4
45 to 85	144	42	215	77	67·0	54·6

From this we see that hæmoptysis is *less* frequent by 10 per cent. in females than in males, after 35 years of age, or when the uterine functions begin to be suspended; *more* frequent in females between the age of 5 and 25 years; and *more* frequent in males between the age of 35 and 55 years than in females. Hæmoptysis is likewise more common in the early stage, before tubercular matter softens, as 72 is to 27 on a basis of 696 cases. It is worthy of remark, that we perceive no stethoscopic signs of hæmoptysis either before or immediately after, or at the time of its presence, seldom finding more than deficient or harsh respiration, and no crepitation. Some observers, however, are of a contrary opinion. (*See* Half-yearly Abstract, by W. A. Ranking, vol. iv. p. 236.) When hæmoptysis occurs we suspend the use of the cod-liver oil, for the usual treatment with sulphuric acid, or acetate of lead, and the compound ipecacuanha pill, with cold and low diet, &c. We have heard *strongly* recommended dry cupping the thoracic region; but, of this, we have not yet had any experience, at least not more than such as to induce us to feel favourably inclined towards this treatment; the more so, as the trial cannot do any harm; also, oil of turpentine in small doses of mx. three times a day.

Diarrhœa is another symptom, during which we generally suspend the use of the cod-liver oil for those soothing or astringent mixtures, commonly known as containing chalk, opium, and catechu, &c. This symptom is peculiar as to its duration; some patients always have a tendency to it, while others never have it; contrary to hæmoptysis, its liability to return increases with the advance of the disease; the coats of the arteries resisting ulceration in a remarkable degree, while the other tissues of the lungs are removed and cavities are being formed. When the diarrhœa continues long and is obstinate, the oil is commonly resumed again, upon that well-known principle of a medicine, acting differently at different stages of a disease. When "night sweats" supervene, we certainly derive great benefit from the administration of gallic acid gr. v. with the one-eighth of a grain of muriate of morphia, as a pill, at bed-time.

In a brief sketch like the present, upon the general treatment of pulmonary consumption, it will of course be recollected, that innumerable combinations of disturbing causes supervene, which arrest the general principles of treatment, which cannot here be mentioned, but which must be met according to the general knowledge which all possess; but the chief points are to arrest the wasting, counter-irritation, and quieting the cough. No day passes in examining the mass of patients but that the most interesting and inexplicable conditions present themselves, so that we experience constant checks to generalising; for false generalisation is commonly upset, as soon as formed, by twenty or thirty consecutive cases immediately appearing; for instance, the question as to the cod-liver oil producing diarrhœa, was uniformly answered by the negative in nearly forty consecutive patients of both sexes. Such a field for observation corrects that natural rashness which we may possess in drawing a conclusion too quickly; whilst, on the other hand, if an observation is supported, undisturbed, by some 150 cases, we may, with tolerable safety, admit it as a general rule. Nothing here has been stated as a general condition of treatment but what is founded on a basis considerably more extended; as from 300 to 3000 observations. The mere subject of weight extended through 3976 cases, (p. 141,) and that of the mobility or vital capacity of the lungs through nearly 5000 cases. The greatest mortality in England is from consumption.

Milton-street, Dorset-square.

[To be continued.]

ON THE PATHOLOGY OF THE UTERUS; ITS ANATOMY AND PHYSIOLOGY.

BY T. SNOW BECK, M.D., Londin.,

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(Continued from last Volume, page 592.)

THE CONDITION OF THE NERVES DURING PREGNANCY.

To quote again from the same review, p. 7: "It is, however, upon the question of the augmentation of the uterine nerves and ganglia during pregnancy that the hottest discussion has taken place. Now, for ourselves, we have not the slightest *à priori* objection to believe in such an enlargement, *with respect, at least, to the ganglia and fibres of the true sympathetic; and no one has asserted, so far as we are aware, that the filaments derived from the cerebro-spinal axis undergo any increase.* We do not pretend to say what are

provision exists for their distribution over the gravid uterus without any augmentation of their size.

The dissections consist of—1. The dissection of a gravid uterus in the full period of pregnancy, taken from the body of a well-proportioned healthy woman who died from hæmorrhage within two hours after the birth of the child. 2. The dissection of the uterus of a woman who had previously borne children; care being taken to select one as near to the stature and as well-proportioned as the former, to avoid, as far as possible, any difference which might depend on individual peculiarity. 3. The dissection of a virgin uterus, taken from the body of a young lady, who died from phthisis pulmonalis, aged 25 years. 4. The verification upon recent specimens of the results of the previous dissections. 5. The dissections of the virgin uterus by Dr. Robert Lee.

These dissections being all made after the same method, *i. e.*, by the removal of the fibro-cellular neurilemma, when compared together incontestably show that the nerves are of the same size in all; or, in other words, that the nerves have undergone no alterations in size, either from age or from pregnancy. Upon this point, I am glad to have the dissections of Dr. Lee to appeal to, as proving that the nerves of the virgin uterus are as large as the nerves of the gravid uterus at the full period of pregnancy, especially when it is remembered, that these dissections were made to prove that the nerves of the virgin uterus were smaller than those of the gravid uterus. The means by which this demonstration was attempted have been already pointed out.

An objection has been made to this series of dissections, viz., that they are not sufficiently numerous to prove that no alteration takes place in the nerves from pregnancy. To those who are unaccustomed to the labour of minute dissection, this objection may appear to have some weight; but, when I know that it took me nearly twelve months, working some hours every day, to make one dissection with that care requisite to make it of any value, I am perfectly willing to leave the making of further dissections, in order to remove unnecessary objections, to those who are not satisfied with the present demonstration, begging them, at the same time, to remember, that *one* dissection, carefully made, can be depended on for the results obtained; but *twenty* dissections, hastily made, and without due care, are worse than valueless for the elucidation of the point at issue. They are valueless, because they do not prove anything satisfactorily; they are worse than valueless, because they lead to much loss of time, by provoking useless discussions.

An *à priori* objection has been raised to these proofs, on the grounds, that the nerves of the virgin uterus, being as large as the nerves of the gravid uterus, show that some change must have taken place, otherwise "they would, if unchanged in structure, appear attenuated to an extreme degree," when stretched over the increased superficies of the gravid organ. Dr. Tyler Smith writes, ("On Parturition and Obstetrics," p. 71,) "Those who maintain that the nerves do not increase in size during gestation, must show, not only that there is no such increase in the gravid, as compared with the virgin uterus, but they are bound to show that the nerves relatively diminish in breadth during pregnancy; for, when we consider the extent and superficies of the fully developed gravid organ, it must be evident to the meanest capacity, that as the nerves of the virgin uterus, remaining stationary as regards size, are merely stretched upon, drawn out, or unfolded over and in the enormously increased gravid organ, they ought proportionally to appear as much *diminished* as the growing tissues of the uterus are *increased* in size." Dr. T. Smith, however, appears to forget, that, in order to make this a valid argument, it is necessary to show that the nerves of the virgin uterus are only of such a length as to allow of their distribution to the virgin organ. Had he *really* inspected the preparations of Dr. Lee as much as in his writings he would wish to make it appear, he would have perceived that in the virgin uterus the nerves, when even only partially dissected, on the body of the organ, can be drawn out to a surprising length,—very much longer than is requisite to supply the virgin uterus.

Rightly considered, anatomy affords one of the best *à priori* arguments against the enlargement of the nerves during pregnancy. First, it discloses a marked folded arrangement of the nerves, both in the immediate neighbourhood of the uterus, and on the body of the organ; and, secondly, it shows a peculiar distribution of the nerves to this organ, whereby these nerves can be distributed over the uterus, when considerably enlarged, with greater facility than at first sight would appear. This peculiar mode of distribution consists of the lower third of the uterus being supplied by branches from the lower part of the hypogastric plexus the middle third of the organ, by a distinct branch from the upper part of the hypogastric plexus, which, entering the broad ligament, reaches the uterus without any communication with the nerves lower down in the pelvis; whilst the upper third derives its branches from the renal plexus, these come down with the spermatic artery, and, after supplying the ovary, are distributed to the upper part of the uterus. In consequence of this mode of distribution, the enlarged gravid organ, when it rises in the abdomen, is brought nearer to the origin of the nerves distributed to it, and, consequently, they (the nerves) can be spread over the enlarged organ with greater facility than if the nerves had been solely derived from the lower part of the hypogastric plexus. Now, when the marked folded arrangement, already noticed, is added to this unusual mode of supply, we perceive that nature has furnished ample means whereby the nerves can be distributed over the enormously increased gravid organ without their undergoing any augmentation in size; and has thereby furnished one of the best *à priori* arguments against the enlargement of the nerves during pregnancy. An examination of the preparations themselves, at present in my own possession, would make this much more evident than any mode of expressing it upon paper can possibly do.

The only *à priori* reason which, it appears to me, can be assigned that the nerves should enlarge during pregnancy, arises from the great increase in the whole of the tissues of the organ. But this withdraws the objection to the possibility of the nerves being distributed to the greatly enlarged uterus, and places it upon a very different question, viz., the necessity for the enlargement of the nerves with the increased growth of the organ; or, in the language of the reviewer, "it certainly does seem to us anything but unreasonable to suppose that, with the enormous development of the muscular and other structures, the vast increase of the supply of blood, and the elevation in the entire functional activity of this wonderful organ, there should be a necessity for an augmentation of its nervous supply." (p. 7.) Yet, to admit this, except upon positive evidence, would be as unphilosophic as to deny it, except upon evidence equally strong. Any arguments drawn from the supposed functions of the sympathetic cannot be considered of much weight, seeing, that with all our labours in that direction, we know, as yet, very little about it. Even should we admit the supposition, that the functions of the sympathetic "would be to regulate, through their action on the arterial coats, the afflux of blood to the organ, in accordance with its functional activity," this does not, of necessity, require the nerves to be enlarged, in order to exercise this influence on the arterial coats.

9a, Langham-place.

[To be continued.]

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

BY

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AND

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HYDATID CYST IN THE PLEURA.

Of the several parts of the body liable to become the seat of acephalocystic hydatids, with the peculiar parasitic creatures, the echinococci, contained in their interior, the liver is the organ which is by far the most commonly thus affected. Next to this organ, as a locality for the development of these entozoa, stand in order of frequency, according to Rokitanski, the peritoneum and sub-peritoneal tissue, the omentum, muscular tissue—both voluntary and that of the heart—the brain, the spleen (usually together with a similar affection of the liver), the kidneys, and, though here very

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rarely, the lungs and the bones.(a) Hydatids have been found also in other parts besides those just enumerated, as the subcutaneous cellular tissue, the globe of the eye, and the thyroid gland. The experience of other pathologists shows, that the lungs are more frequently the seat of hydatids than might be inferred to be the case from Rokitanski's account. Yet their occurrence in the cavity of the pleura, of which even Rokitanski does not give an example, is of sufficient rarity to render the following case worthy of record.

Elizabeth Spraggs, aged 24, admitted July 17, 1850, under Dr. Hue, Hope front ward 12: expression anxious; breathing short, hurried; face universally suffused with a dusky flush, which during cough deepens to lividity; skin hot; pulse 128, moderate volume, rather sharp; tongue dusky, moist, coated with a thick white fur on the dorsum; has dyspnœa, with inability to lie down; frequent cough, with dirty yellowish mucous rather fetid expectoration; pain in the left side, which prevents her drawing a full breath; cannot lie on either side. Is a foundling, unmarried, in service. For a year and a half has been troubled with almost constant cough, with scarcely any expectoration, but occasionally slight spitting of blood; she has also been short of breath on going up stairs. For the last fortnight she has been feeling ill and languid, with headache and loss of appetite. The day before admission to the hospital, while carrying a tray, she was suddenly seized with a paroxysm of coughing, and brought up a large quantity of water, followed by a little blood; the cough continued, and severe pain in the left side, accompanied with difficulty of breathing ensued. The difficulty of breathing and general distress were so urgent, that it was not considered prudent to bring her to the hospital the following day. On admission, ʒviij. of blood were at once taken, by cupping, from the left side; five grains of calomel, and a grain of opium, given at bedtime? and a saline draught, with half a drachm of antimonial wine, ordered to be taken every six hours. The cupping was attended by immediate relief to the side, and the next day all her symptoms were found alleviated. On the third day, however, when the note I have just given was made, there was a return of all the urgent symptoms, and she presented the distressed condition I have described.

On auscultation, there was found exaggerated healthy breathing throughout the right lung, with natural resonance, on percussion. On the left side, in front, beneath the clavicle, there was a little feeble inspiratory murmur, with loud, though apparently distant, cavernous, almost amphoric, expiration. Below this, no respiratory sounds were audible, and no vocal vibration or modification of the voice. From the clavicle to the mamma, resonance on percussion was *unduly good*—indeed, quite box-like; below the mamma, there was semi-resonance. Posteriorly, with exception of a little feeble breathing above and some creaking and scattered crepitation below, no respiratory sounds were audible, and there was no modification of the voice. Resonance on percussion was generally impaired, especially over the spine of the scapula, where there was decided dulness.

The nature of the case thus presented to notice could only be guessed at; a correct diagnosis could scarcely be formed. The dry cough of a year and a half's duration, with occasional hæmoptysis, suggested the existence of tubercular disease; and the sudden onset of severe pain in the left side, with dyspnœa, after a violent paroxysm of coughing, suggested again that a tubercular cavity had burst into the pleura, exciting inflammation of that membrane, and leading to pneumo-thorax. The physical signs, too, *e. g.*, the cavernous, almost amphoric, breathing beneath the left clavicle—the undue tympanitic resonance, on percussion, between the clavicle and mamma—and the almost complete absence of vocal and respiratory sounds at other parts of the same lung—quite favoured the supposition of the existence of pneumo-thorax, while the yellowish fetid expectoration supported the probable co-existence of a tubercular vomica, communicating with the cavity of the pleura. Yet there was no emaciation, and her aspect did not at all betoken a phthisical diathesis. Moreover, the amount of the large quantity of water, which both she herself and her friends averred had been ejected at the commencement of the present severe attack, did not bear on the supposition of phthisis, and it therefore perplexed rather than aided the diagnosis; it had, indeed, to be omitted from consideration, as an improbable circumstance; and it was only on the termination of the case that it rose up into the importance which, as a symptom, it really deserved.

Whatever might be the real cause of the mischief, however, it seemed pretty certain that inflammation of the left pleura had been excited, and to combat this inflammation was the point now to be attended to, and suitable measures were employed accordingly.

July 20.—A restless night; kept awake by cough and dyspnœa; confused and dreaming whenever she did sleep. Aspect equally distressed; face flushed; the flush principally affecting the right cheek. Pulse 128, small, still sharp. Tongue thickly and uniformly furred; rather less dusky. Pain remains in left side; respiration short; cough distressing; sputa copious, consisting of tenacious, frothy, yellowish mucus, rather offensive, and exhaling a strong horse-radish odour. On auscultation, the cavernous expiration beneath the left clavicle was no longer audible; indeed, there was complete absence of respiratory sounds in front of this lung, and only some obscure bronchial sounds, with occasional crepitation over the middle part of the lung behind. The box-like resonance on percussion between the clavical and mamma remained.

The notes during the next four days record little else beyond continuance of the dyspnœa and distressing suffocative cough, increase of duskiness of features, and great increase in the fetor of the breath and sputa, which became most offensive to herself and others. The auscultatory signs remained unchanged, except that there were rather more respiratory sounds over the lower part of the left lung behind, mixed with large crepitations, and that the whole of this side posteriorly became more resonant on percussion. Active treatment was suspended, and such remedies alone employed as seemed calculated to allay the dyspnœa and other more urgent symptoms.

From the 24th to the 29th she still continued in the same general state, harassed with distressing cough, constant shortness of breathing, and inability to lie down, and an intolerable fetor of the breath. She took her food pretty well, but was evidently becoming weaker from day to day, though at times she would look brighter, more cheerful, and less dusky. On the morning of the 29th, the effort of leaving her bed produced an attack of dyspnœa which was almost fatal. She rallied, however, but on the evening of the following day, after exposure to another similar effort, she had a second attack of dyspnœa, from which she did not recover, but, after labouring for breath for about three hours, at length expired.

The body was examined twelve hours after death.—There was slight emaciation; considerable rigidity in the lower limbs; less in the upper; nothing abnormal in the heart or pericardium; the right pleura was healthy. On opening the left pleura a stream of air rushed out; this air seemed to have occupied nearly the whole pleural cavity; for, at first sight, no trace of the lung could be seen, nothing appearing but a large cavity, the walls of which were lined by rough, whitish fibrine, or lymph, in the form of a firm false membrane. At the bottom of this cavity there lay, loose and unattached, a large, collapsed membranous bag or sac, containing a small quantity of turbid whitish fluid. This sac, obviously a hydatid cyst, was formed of milk-white, very delicate and friable membrane, about a line in thickness, tolerably smooth on the exterior, but rough and nodular within, owing to the presence of groups of small semi-transparent vesicles, filled with a clear, colourless, glutinous fluid. The compressed left lung was spread out, and occupied the whole of the posterior, and the greater part of the outer portions of the pleural cavity, or rather of its walls, for it was almost too much flattened out to be said to occupy any part of the cavity itself. Its tissue crepitated slightly on pressure, was of a pale reddish colour, and traversed by bronchial tubes, the mucous membrane of which was of a dark-red colour, and covered by thick, yellowish secretion. Here and there were several small patches of solid, grey, granular texture, evidently masses of lobular pneumonia.

The cavity in which the membranous bag lay was bounded posteriorly and laterally by dense false membrane spread over the pulmonary pleura. In front, this false membrane was continued over the parietal pleura lining the ribs and costal cartilages, and formed the anterior wall of the cavity. The interior of that portion of the cavity corresponding to the lung was rougher and of a darker colour than elsewhere,

(a) Rokitanski's Allg. Pathol. Anatomie, bd. i., s. 492.

and was covered with flakes of soft brownish material like solid lymph. It presented also several chinks of a semi-lunar form, leading to passages situated between the walls of the cavity and the surface of the lung. One, at least, of these passages was traced into a bronchus, and with further trouble several others would doubtless have been found with similar communications; but no bronchus was found opening directly into the cavity. The whole of the parts emitted, in a concentrated degree, the peculiarly offensive, almost gangrenous odour, perceived in the breath and sputa of the patient during life. The right lung was very œdematous, and its bronchi filledwith thick opaque mucus, but otherwise it seemed healthy. The liver was very large, extending down into the right iliac region. The whole of the left, and a considerable part of the right lobe, was spread out into a large cyst, forming a rounded prominence in the epigastrium and extending backwards so as to rest on the vertebral column. The exterior of this cyst was very tense and fluctuating, and, having a yellowish or buff colour, spotted with red, looked exactly like an abscess about to burst. On puncturing it about ℥xviij. of perfectly clear, pellucid, watery fluid escaped, and the walls collapsed. Within this cyst, and exactly lining every part of it, and loosely adhering to its roughened interior, was a whitish membranous bag, which had contained the fluid evacuated on puncture. This bag, or hydatid cyst, resembling exactly the cyst found in the pleural cavity, readily admitted of separation from the interior of the sac in the substance of the liver, and shelled out whole. When emptied of the remainder of the clear fluid it contained, it collapsed like the cyst in the pleural cavity. Floating in the fluid of the cyst was another acephalocyst, about the size and shape of a small walnut. Numerous perfect echinocci were found in the fluid of the large cyst. The general tissue of the liver was healthy; and there were no adhesions between its surface and the diaphram or other neighbouring parts. Nothing worthy of note was found in other organs.

The nearest parallel case to the above with which I have met, is one quoted by Cruveilhier, in his comprehensive article "Acephalocyste," in the "Dict. Méd. et Chirurg. Pratique." In this case, each pleural cavity contained a large hydatid cyst; the lungs being greatly compressed and flattened out. Neither of the cysts had burst, the patient dying apparently suffocated in a paroxysm of dyspnœa, to the recurrence of which he had long been subject. The original details of the *post-mortem* examination were not sufficiently explicit to enable Cruveilhier to decide whether the cysts had been developed in the substance of the lung or in the sub-pleural tissue. In this case, as in the one I have narrated, there was a hydatid cyst in the liver also. For a discussion of the interesting question, as to how far hydatid tumours existing in two or more organs are dependent for their development on a common cause, or on each other, I may refer to Dr. Budd's work on "Diseases of the Liver."

W. S. K.

KING'S COLLEGE HOSPITAL.

BY

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AND

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UNUNITED FRACTURE.

Amongst the numerous instances of fracture of the bones of the extremities brought under the notice of surgeons in the hospitals of London, it is comparatively rare to meet with a case where union of the broken surfaces does not take place. This, doubtless, is in a great measure to be accounted for by the care and attention which are employed in the treatment of such accidents, and by the efficiency and simplicity of the apparatus which is used. Even in pathological museums it is not often that specimens of ununited fractures and false joints are to be met with, although, of course, every well-furnished collection has instances of this nature. Thus, if in a former age, when surgery was not so advanced, cases of this description were somewhat rare, it must be confessed, that they ought not to be frequently seen now, when the treatment of fractures is so well understood, and carried out in so simple and effectual a manner. Certain conditions, however, and particular circumstances, may obtain or arise, where a fracture of a bone has occurred to an individual, by which both the efforts of nature and those of the surgeon may be thwarted in their endeavours to bring about the desired union. A person may meet with a fracture of one of his extremities at the same time that his system is so weakened by some constitutional taint, that those phenomena which are necessary for the efficient union of a broken bone will not take place, or will only be feebly elicited. It is probable that the greater number of instances of ununited fracture are the result of such a condition of general unhealthiness and debility of system; and, under such circumstances, especially if the true cause is ascertained and the appropriate remedy used, the desired cure may be more readily brought about than when local causes obtain. If a patient receives a fracture during the time that his blood is contaminated by the poison of syphilis, it may happen that a sufficient amount of bony matter to produce union of the broken surfaces will not be thrown out, although, as regards position and other local treatment, everything is favourable for the occurrence of it. When, however, by the employment of suitable internal remedies, the syphilitic taint has been removed, and the system has been brought into its previously healthy condition, the much desired junction of the broken bone takes place. It has been found that mercury, given internally so as to affect the system appreciably, has brought about a cure when other measures have failed; and it is probable that, in such an instance, the remains of the venereal poison have been lurking in the body, and have been the cause of the non-occurrence of the phenomena which are necessary for union of a fracture.

If, again, fracture occurs in the person of an individual who has been much debilitated by low living, and if the same conditions as existed before the accident obtained during the treatment, however well adapted the local measures may be, union will probably not take place; the remedy, however, is obvious, and, when it is applied, a fortunate result is certain to ensue. Likewise, when the system is affected with another disease,—namely, scurvy,—it is difficult for nature to bring about union of a broken bone; but, as soon as measures are resorted to for the cure of the constitutional disorder, the local mischief is readily repaired. These are instances which will show how comparatively easy it is to obtain union when prevented or delayed by some constitutional disorder, on the application of the remedies which will remove this evil. It will probably not often happen that the suitable remedy will fail when the nature of the cause has been accurately ascertained.

But there are cases of non-union of fracture where the true cause of this condition cannot be discovered, or where it is dependent upon some local circumstance. It is in such instances that the surgeon has the greatest difficulty in finding out the proper and effectual treatment. In some of these cases there may not be a proper apposition of the broken surfaces of the bone, a sufficient amount of pressure is not exerted, or the limb may not be kept in a suitable state of quietude. Attention to these matters will not unfrequently cause effectual and speedy union to occur when there has been every appearance of a failure. But these measures may have been tried without any effect, and the surgeon will find it necessary to put in force some local proceeding: and the nature of it is generally of necessity severe, and it is attended with more or less danger to the limb or life of the patient. A case which has of late been under the care of Mr. Fergusson in this hospital will (especially as death has eventually occurred) well illustrate the difficulties and dangers which are connected with the treatment of certain of these unfortunate instances of ununited fracture. The case is as follows:—

A very stout man, about 40 years of age, was admitted into the hospital at the end of October, 1849, for the purpose of getting cured of an ununited fracture of the right thigh bone. The patient had served in the capacity of a steward on board of a man-of-war, and in the month of July, 1849, was in Nova Scotia. At that time he was thrown out of a cart whilst on shore, and had his limb fractured. He was taken to the military hospital of the place, and was kept in that establishment for four months. The limb had been set, a case of brown paper had been placed around it, and a long splint applied, all being secured by pieces of tape. This apparatus was kept on for seven weeks, at the termination

of which period he was allowed to get out of bed. It was found that the broken bone had not united, but the patient was told that it would get sound in time. He was subsequently taken on ship-board, and transferred to England, when he gained admission into Haslar Hospital. A proper plan of treatment was put in force at that institution, but no benefit accrued to the man; and, at the period mentioned, he came to King's College Hospital. It was found that the femur was broken at its upper third; the upper fragment was jutting prominently forwards over and above the other; and the parts were so exceedingly moveable, that it was very clear that no union whatever had taken place. The general health of the man was excellent; the only thing abnormal about him was his excessive obesity and corpulence. As treatment by position and the usual apparatus had been already tried for a long time, it was evident that some strictly local measure must be employed here, to attempt to bring about union. Mr. Fergusson therefore made several punctures with a long narrow knife over the seat of fracture, and very freely scraped the ends of the broken bone. The limb was then well put up in splint and bandage, and it was not disturbed for several weeks, in the hope that union would take place. Some local inflammation had occurred, and, on inspection, it appeared as though there was some consolidation of the parts. Mr. Fergusson, therefore, again freely scraped the ends of the fragments in a similar manner, and ordered that the limb should be firmly put up as before. In the month of February, the apparatus was removed and the thigh was examined, and it certainly appeared to be considerably stronger. Recourse was again had to the subcutaneous punctures, and a firm dextrine apparatus was applied, at the same time he was well dieted.

This patient continued in the hospital until April; he was allowed to sit up, and at times was permitted to move about with the help of crutches and a swinging apparatus; but his health began about this time to suffer from the confinement to which he had been so long exposed. He got a slight attack of fever, and it was thought better that he should be allowed to go out for a time to recruit his health. Mr. Fergusson examined the state of the fracture, but it did not appear that any actual union had taken place, and he determined to put in force some more severe measure when the health of the patient should have become restored.

This man returned to the hospital in the commencement of last October. His health was quite good, but the broken femur was as loose as ever it had been, and it now became a question as to what should be done for the benefit of the poor fellow. Three measures presented themselves to the mind of Mr. Fergusson: amputation of the thigh above the fracture, passing a seton betwixt the fractured extremities, or cutting down upon and sawing off the ends of the bone. Mr. Fergusson was inclined to the latter, as he did not think it justifiable to cut off the limb without first attempting some less severe measure; and the patient himself, who was an intelligent man, and was acquainted with the nature of the operation, wished that resection of the bones should be performed. Accordingly Mr. Fergusson executed this very severe and difficult proceeding on Saturday, the 5th, in the following manner:—

He made an incision about four inches in extent in a direction somewhat curved and carried obliquely across the thigh over the seat of fracture. The soft tissues were dissected up, and the upper fragment of bone, which had been tilted forwards, was readily exposed, and the muscular textures being cleared away from it, a portion of its extremity was sawn off. An attempt was now made to get at the lower fragment, but it was so deeply imbedded under and within the other that it was found to be impracticable to saw off a portion of its circumference without danger of wounding important vessels. The cutting pliers were therefore used, and some portions of bone were removed and the surface well scraped. Free bleeding took place during the operation, and it was found necessary to apply several ligatures. The wound was dressed, a portion of lint was kept in, and endeavours were made to keep the limb straight by means of a well applied splint and bandage.

It would be expected that this patient, in consequence of his great corpulence, would have suffered very severely from an operation of this description, but it was not the case; there was a very moderate amount of constitutional irritation, and the local inflammation was by no means severe. He went on extremely well during the first few days; the discharge was very healthy and moderate in quantity, and the wound itself presented a very good looking appearance. Everything, in fact, seemed extremely favourable until the 25th of October, just three weeks after the operation, on which day the patient experienced a rigor, which was followed by febrile symptoms, at first of a moderate character. On the 28th matters took a very grave appearance; the patient was much depressed; the tongue had become dry and brown; the face jaundiced. No remedies did any good, and he died next day.

On *post-mortem* examination, the internal organs of the body were found to be perfectly healthy. There was an enormous development of fat about the body. The wound which had been made during the operation had almost entirely healed up. On looking at the fractured bone itself it was seen that the fragments were still much out of place; the upper portion was tilted forwards, and the inferior fragment was carried inwards and upwards at least an inch above the other. The surface of the superior fragment was coated with a healthy layer of lymph, which had been poured out, and on the surface of the lower there was a mass of new bone. The veins of the thigh were examined, but there was nothing wrong with them.

The sudden and unfortunate termination of this interesting case was not expected, as three weeks had elapsed since the operation had been put in force, and everything had appeared to be so favourable, that it is extremely difficult to account for the real cause of death. The symptoms existing in the brief interval from the sudden change to the time of death, pointed to purulent absorption and purulent deposits, either at the wound itself or in some of the internal organs, and it was expected that some such mischief would be ascertained after death, but on examination nothing was found which would account for the symptoms which had been so prominent. If this constitutional irritation had developed itself within a few days after the operation it could have been easily explained, and it would not have been surprising if such an attack had immediately followed an operation which was so severe, and performed upon a subject who was not the best calculated to undergo it with impunity.

The appearances of the parts observed at the *post-mortem* examination will explain the extreme difficulty which exists in the treatment of such cases generally, as well as the circumstances which rendered this particular operation not only embarrassing but hazardous. It was seen that the lower fragment of the bone was drawn considerably above and internally to the other, which was tilted much upwards and forwards out of its place; and this was the case, although upwards of an inch of the superior fragment had been removed, and great care had been exercised, during the life of the patient, in keeping the bone in place, and procuring proper extension by suitable apparatus. If, then, the fragments of the broken bone were so much displaced, even after the operation, it will not be difficult to understand that this mal-apposition must have been far greater before any of the bone had been removed. It is not improbable, therefore, that the want of union was owing, in some degree at least, to the bad position which the extremities of the fractured bone had assumed in relation to each other, although this was not the sole cause, perhaps; for it will happen, (as can be seen in our Pathological Museums,) that a broken bone will unite firmly, although the fractured surfaces are entirely out of the way of being apposed to each other. It is very likely that sufficient care had not, in the first instance, been taken to ensure good position; and, such being the case, it is not difficult to understand that bony union would not readily ensue, in a situation where there is always a great tendency in the fragments of bone to be withdrawn from one another.

It has already been stated, that, during the operative proceeding, Mr. Fergusson experienced very great difficulty in getting at the lower portion of the fractured bone, and it was found impossible to apply the saw in such a manner as to make an effectual section of the whole circumference. This difficulty also was sufficiently explained by the position of the lower fragment; and the danger that was imminent from a too free use of instruments was now made clear, for the femoral vessels were seen running close alongside of this portion of the bone, and it would have been easy to have wounded them, had not great caution been used. The knowledge that these vessels were close by rendered Mr. Fergusson very careful in using the long narrow knife with

which he, on two or three occasions, having passed between the fragments, scraped their surfaces.

Had this patient not been suddenly cut off, there is every probability that this operation would have been successful in bringing about bony union, for a considerable mass of osseous matter had already been thrown out, especially on the surface of the inferior fragment; and it is reasonable to suppose, that if the health of the patient had continued good, more and more bony matter would have been deposited around the extremities of the fracture, so as to ensure a firm union. It will be seen that the method of treatment recommended by Professor Miller, of Edinburgh, was tried in this instance fully and fairly, but it was not attended with any beneficial results. Mr. Fergusson put this plan into practice, on two or three occasions, in another case, some time ago, to which the remedy would appear to be admirably adapted,—namely, an ununited fracture of the shaft of the humerus in a little boy,—but, after a fair trial, it was not found to produce any good result, and it was needful to re-cut the ends of the bones. Nevertheless, Professor Miller speaks so highly of this plan of treatment, it is so simple, and not likely to be attended with any bad result to the patient, that every prudent surgeon will do well to try it fully before putting in force an operation which must be considered to be one of the most difficult and unsatisfactory in surgery,—namely, the resection of the ends of an ununited fracture. H. S.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	January 4.	Medical Society of London. *Subject*:—Mr. Hancock on Two Cases Operated upon for Strangulated Hernia; with Remarks. Eight o'Clock.
Monday,	January 6.	Epidemiological Society. *Subject*:—Dr. Bryson, R.N., on the Infectious Nature of Cholera. Half-past Eight o'Clock.
Tuesday,	January 7.	Pathological Society of London. General Meeting for the Election of Officers. Eight o'Clock.
Wednesday,	January 8.	Pharmaceutical Society of Great Britain. Nine o'Clock.
———	———	Geological Society of London. Half-past Eight o'Clock.
———	———	Hunterian Society. Half-past Seven o'Clock.
Saturday,	January 11	Guy's Hospital Physical Society. Eight o'Clock.
———	———	Medical Society of London. *Subject*:—Dr. Snow on the Treatment of Disease by the Inhalation of Medicinal Substances. Eight o'Clock.

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THE MEDICAL TIMES.

SATURDAY, JANUARY 4.

HOSPITALS AND THEIR USES.

It is with no little satisfaction, at the commencement of another volume of the *Medical Times*, that we direct the attention of our readers to the elaborate Hospital Reports which have appeared in our pages. The accuracy of these reports has been guaranteed by the signatures of the reporters; and it is almost unnecessary to say that these names include many which are already, or which are destined to be, placed high in the ranks of our Profession. We are aware, however, that improvements may still be introduced into these reports; that a greater uniformity in the mode of taking cases; the bringing to bear the experience of many hospitals on obscure or disputed parts of pathology or therapeutics; the accurate comparison of the effects of treatment in different hospitals in special classes of diseases, and various other points of the like kind, will hereafter render our "London Practice of Medicine and Surgery" infinitely more useful than it is at present.

It is not, however, so much to this subject that we desire now to allude, as to the immense benefit which would result, were every London hospital to do completely, and on the large scale, what *we* do imperfectly and by piecemeal. What advances would our Profession make, if *every case* admitted into our hospitals were to be reported as fully and as judiciously as those which have appeared in our pages? What benefit would result, if from every hospital there were to issue an annual report, even if only the deductions from the vast number of facts which every year are noted within its walls, were recorded?

As an illustration, we would recall to mind of what immediate benefit to medical science the facts collected in the youngest charitable institution of our great city have already been. The Hospital for Consumption, founded in the spirit of divinest charity, promises to do something more than merely open its wards and provide an asylum for those unfortunate subjects of a disease so intractable and so fatal that our ordinary hospitals decline its treatment. The Hospital for Consumption promises to do something more than relieve the incipient stages of the disease, or smooth the descent to the grave of those whom medicine cannot save. A nobler end possibly awaits it; a triumph, it may be, greater than that which to the end of time will hail Jenner's great discovery. For each patient who enters its charitable halls is the means of adding fresh facts to the store which in time to come will be sufficient to solve the dark problem of the nature and cure of this bitter scourge of our race. Every patient who issues from its gates with the ineffable sensation of returning health glowing at his heart, leaves behind him a contribution to that patient inquiry which is to augment, for others' benefit, the powers of that science which, even to him, has been potent to heal. The benefit conferred ceases to be simply individual, it becomes national; for is there a family in the kingdom who have not had cause to mourn, with unavailing tears, over the early death-bed, from consumption, of one or other of their blood and kin; and is there any one who will not regard as a national undertaking the attempt to investigate, on a great scale and on a consistent plan, the causes and progress of a disease so general and so unsparing?

The two reports which have already issued from this hospital justify us, we believe, in our anticipations, great as they are, of what will be accomplished as the investigations extend. We only trust that the medical officers will not be daunted by the difficulties of an inquiry which must necessarily be prolonged over a number of years, nor forget that with the duty of affording relief to the individual is combined the obligation of succour to the race.

What the Consumption hospital can, and we think will, accomplish for two or three affections, our great London hospitals might effect for numerous diseases. Is not, in

fact, an investigation of this kind an imperative duty, and will not the general opinion of the Profession soon demand it? What facilities, indeed, have our great hospitals, with their enormous funds, for such a work? Surely, from those princely incomes some small share might be appropriated to establishing an increase of staff for the purposes of more minute investigation, to preparing drawings and models, to making accurate microscopic examinations, to instituting series of chemical examinations, &c. At any rate, until this be done the greatest use is not made of our magnificent institutions. We hope, however, soon to see the time, when the example set by the officers of the Consumptive Hospital will be invariably followed, and when the reports issued from Brompton will not be the only evidence of how much service our hospitals might in this way render to medical science.

POOR-LAW PRACTICE.

The Committee of Union Surgeons have reason to believe that Lord John Russell is anxious to obtain information on the subject of medical relief, and, with prompt fidelity to the interests they are deputed to guard, they propose to appoint a Deputation to wait upon His Lordship, to ascertain his sentiments respecting a reform of the present inequitable and pernicious system.

This is the best thing that the Poor-law surgeons can do at the present juncture. They can have no hope of reform from any of the existing Boards. The Poor-law Commission is merely an executive body, and, although endowed with considerable powers to modify its action, yet it exercises them with a delicate caution that suggests no expectation of any relief to the medical interest from this source. There are certain leading principles and precedents in the present system, from which the Board will not depart. There is also the fetishism of office,—a superstitious veneration for old saws and parchment rules,—which infects all Government Boards, and makes it impossible that reforms should emanate from their bureaus. A petty economy is the order of a Whig Commission; and, if a secretary or president can show that he has saved a groat a day by using up the ends of red tape and sealing-wax, or by starving down a needy clerk to the mere possibility of existence, he has done enough to command the admiration of the Government.

Nor can aid be expected from the boards of guardians, who have an immediate and direct interest in lowering the remuneration of the medical officers to the lowest point. The sufferings of the poor are unfortunately not easily expressed by arithmetic; and the losses the Union sustains in consequence of neglected disease, are not reducible to a mere result by any algebraic equation. Farmers and tradesmen know no more of the value of a commodity than can be determined by its price in the market; and intellect and calls are measured by them in the same bushel. From such materialism, the Union surgeons cannot draw any favourable auspices.

What chance there may be with Lord John Russell is a matter of conjecture. If the Premier have any prepared plan, he will readily receive the Deputation, and the interview will be an augury of good promise for the Poor-law surgeons. We do not, however, rely upon Lord John Russell in this matter; for we do not forget that the point on which the Government considered that they especially deserved the plaudits of the nation during last year, was the admirable management of the business of the Poor-law Board. They will hardly, therefore, venture to interfere, upon its own merits, with the arrangements of such a successful office.

We are, however, not altogether without hope; Mr. D'Israeli is anxious to shift the burden of the county-rates, and some other liabilities on the agricultural interests, from the shoulders of the landlords to those of the nation, and to make these taxes a charge upon the Consolidated Fund. It is not improbable that Lord J. Russell may be inclined to deal with Mr. D'Israeli as he himself was dealt with by Sir Robert Peel; and, by adopting his opponent's policy, defeat his antagonism. If the Government or Mr. D'Israeli should bring such a measure before Parliament, even in a modified form, there will be some hope for the Union surgeons; and we, therefore, encourage them to persevere, for, in the conflict of parties, they will find an opportunity, if they look for it, of securing their own undoubted rights.

DISTRESSED MEDICAL MEN.

A solemn and painful duty waits this week upon our labours. We have to announce a sad termination of a melancholy history. Death has released one victim from the servitude of a bitter destiny. The shadows of the tomb mantle a heart, now, we trust, happily exempt from the sorrows that made life a burden and a reproach. One of the poor distressed medical men in whose behalf we lately appealed to our readers, has gone to his long home. "The poor man's contumely" has lost its sting. Lying low in the dust, he carries with him no longer the shadow of a world's scorn. High intellect and cultured sensibility suffer a daily crucifixion upon the gibbet on which Want remorselessly nails its victim.

The deceased was gifted with a superior mind, and was the prizeman of his year. His health was impaired by fever, and never completely rallied from a ninth attack, received in the discharge of his duties at the Fever Hospital, Queensberry House, Edinburgh. A few days before his death we saw him, and administered to the utmost of our ability to his wants. He then told us that he had just met an Edinburgh acquaintance, and their misfortunes becoming the topic of conversation, he discovered that his friend was acting as an assistant to a London practitioner. On going to his lodgings, he found that his friend's wife and four children were living, or rather starving, *in one room*.

We relate these lamentable details to warn parents against educating children for a Profession already overcrowded, and unable to keep from starving some of its most accomplished members; and to awake sympathy in favour of the widow and children of our departed brother. The expenses of burying the deceased must be considerable; and, unless the Profession are ignobly content to allow him to be interred at the expense of the parish, they ought to subscribe among themselves to give him decent obsequies. It would be an indelible disgrace to permit such a man to be buried as a pauper, and his family driven forth on the world to make or mar their fortunes, as accident may determine.

THE ALLEGED LUNATICS' FRIEND SOCIETY.

It appears that the attention of the Committee of the "Alleged Lunatics' Friend Society" has been drawn to an article which recently appeared in our columns, respecting an alleged case of lunacy and false imprisonment which occurred in Jersey, and we have, consequently, received a letter from the Honorary Secretary—Mr. Percival—on the subject, which we have inserted in our present number.

We are very much afraid that the members of this Society

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are apt to see things through a hazy and distorted medium, and have, therefore, with their usual want of judgment, quite misinterpreted the tenor of our article. We did not "attack" what Mr. Percival is pleased to call "the conduct of the Society;" we simply commented upon a very injudiciously written letter, addressed to the public journals by their Secretary, Mr. Bailey, to which the one we now publish is a very appropriate sequel. What are the facts? A lady is accused, in Jersey, of insanity; she is given in charge to a beadle, and forthwith locked up in one of the "cells" of the General Hospital; an appeal is then made to the authorities, an inquiry before a properly constituted court is instituted, and the lady immediately set at liberty. Hereupon the Secretary of the Alleged Lunatics' Friend Society "takes," as Mr. Percival says, "advantage" of this case "to contrast the system of protection afforded by the laws of the Channel Islands to persons alleged to be of unsound mind, with the present deplorable state of the law of lunacy in this kingdom." Is not this a palpable absurdity? To adduce a case of false imprisonment in illustration actually of the protection afforded in such cases by the old Norman law? Surely, if the case prove anything at all, it is, that in Jersey, at the present moment, the law does not afford adequate protection to such persons. Nay, we find, on inquiry, that there is not in the island any lunatic asylum whatever, and persons who unhappily are insane must be either kept in private houses or consigned to the cells of the general hospital. We, therefore, justly draw the inference that there is no proper "system of protection" afforded to lunatics in the Channel Islands; and we have a right to presume, that if a properly conducted lunatic asylum were established in Jersey, such wrongs as occur at present would not be inflicted, as the authorities attached to such an establishment would return a case of this description as ineligible for admission.

With reference to the question, Why does not the Alleged Lunatics' Friend Society come forward with some specific suggestion for the amendment of the Law of Lunacy? we are by no means satisfied with the answer of Mr. Percival; it is rambling and inconclusive. They, it is true, have wandered about the country prepared to lend a willing ear to the idle story of every lunatic they could meet with; they have pestered the Home Secretary, and ever and anon obtruded their opinions and schemes upon such members of the Upper and Lower House as would listen to them; they have called meetings at Exeter-hall, and delivered eloquent harangues, depicting in the most vivid colours all the abuses that can be conceived to exist in public and private lunatic asylums; but, notwithstanding all this, "there remains," says Mr. Percival, "a general and lamentable apathy on the subject throughout the people." The Press is to blame for "not more fully reporting their opinions and facts;—the public is to blame for not listening to them more attentively;—the Legislature is to blame for not attending to the numerous petitions they have presented to the two Houses of Parliament;"—in short, everybody is to blame, and the alleged Lunatics' Friend Society drags on an obscure existence, somewhere near the Strand, by consoling itself with an occasional public meeting, and amusing itself with drawing out the outline for Acts of Parliament which are never likely to come into operation. The most notable suggestion they have made which the Law Amendment Society entertained, was, that no patient should be confined in a lunatic asylum without the verdict of insanity being pronounced by a petty jury; a proposition which we believe to be not only objectionable but impracticable. The affliction of insanity is one that should not be unnecessarily obtruded before the public; the hand of humanity will always draw a veil over such a domestic calamity. Who, therefore, would willingly allow a relation or friend to appear before such a tribunal? Besides which, what manner of men are to be empanelled on such a jury? If ignorant of the phenomena of bodily and mental disease, the verdict of "twelve honest men" would, after all, be of no earthly value.

We are by no means surprised that the proceedings of the alleged Lunatics' Friend Society have been received with the "general apathy" complained of, which arises from the simple fact, that they have not yet made out their case to the satisfaction of the public.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

Principles of Scientific Botany, or Botany as an Inductive Science. By J. M. Schleiden, M.D. Translated by Edwin Lankester, M.D., F.R.S., &c. Pp. 592. London. 1849.

The intimate connexion which has subsisted between botany and medicine from the earliest ages, renders the investigation of the properties, the classification, and the structure of plants, a favourite pursuit among the members of the medical profession. This pursuit has acquired additional interest from the profound investigations of Schleiden, of Schwann, and other anatomists, who have indissolubly connected the development of animals and plants under the single universal law of cell-formation. We are even yet scarcely in a position to estimate the important results to general physiology which will flow from the determination of the development of cells, and the modifications which these undergo in the two great divisions of organised beings; or what light the vegetable physiology will be able to throw on the development and structure of animals.

A work proceeding from one of these discoverers will be taken up with additional interest, because we may rationally anticipate that it will be of an original character, and contain new and accurate observation; and such is the case with the work now before us. It is impossible, in the narrow limits assigned us, to enter on a minute examination of the many original and valuable facts and researches, the results of which are now presented in this elegant and accurate translation from the original German. We must, therefore, content ourselves with placing before our readers a general notice of the contents of the volume, with some scattered observations on the more interesting points under review.

The volume is divided into four books: the first, on the Chemistry of Plants; the second, on the Plant-cell; the third, on Morphology; and the fourth, on Organology.

The first book commences with an enumeration of the inorganic constituents of plants, including the minute crystals, or *raphides*, found in the cells and intercellular passages; followed by a brief notice of the more important proximate principles formed in plants by the processes of assimilation, including a very full and interesting account of the structure and varied forms of starch granules. Schleiden holds the opinion, considering it as fully demonstrated, that the starch granule consists of a number of layers of the same substance, super-imposed on each other, surrounding the nucleus, and that the concentric lines seen so beautifully on the starch granula are the lines of demarcation of the different layers, the external and last formed being denser and more transparent, the internal softer and more aqueous. The nitrogenized constituents, usually known as vegetable albumen, fibrine, and casein, are designated by Schleiden under the generic name of mucus,—a term which, considering its vague signification, should be banished from all modern works. He states that one or other of these nitrogenized matters is contained in all cells still endowed with vital properties in an entirely fluid, semi-fluid, granular, or solid form, either lining the whole internal surface, or, in some cases, completely filling the cell. Another observation of great interest is, that tannin is contained in the cell wall, and he looks upon this substance as being the result of the commencing decomposition of the

cell membrane; observing, that if cellulose C_{24} H_{20} O_{20} take up 16 O from the air, and 12 HO (water) and 6 CO_2 (arbonic acid) disappears, there will be left one atom of tannin (C_{18} H_8 O_{12}).

The second book is entirely occupied by the investigation of the plant-cell, in which the cell is first considered as an individual, its development from the nucleoli and nucleus, its further transition in certain situations to the fibrous cell, the barred, dotted, and annular ducts, woody fibre, and spiral vessels. The origin and structure of the spiral fibres, common alike to cells and the different modifications of vascular tissue, are well described. The tissues formed by the union and aggregation of cells, and their modifications, next engage attention, on which we have not space to enter.

The chapter on the life of the plant-cell is occupied with the Examination of the Absorption of Foreign Matters—The Assimilation of Absorbed Matters and Secretion—The Excretion of Substances from the Plant-cell—The Disposition of Assimilated Matters—The Motions of the Cell Contents—Motions of Vegetable Cells—The Reproduction of the Cell, and the termination of Cell-life. The whole of this chapter deserves and will repay an attentive perusal; the facts and reasonings contained in it being of a strictly philosophical character, and betraying none of the mysticism so commonly found in the works of German authors. The second section of this chapter presents some general views of the functions of tissues compounded of cells.

The third book, devoted to Morphology, commences with a definition of this term, which differs in some particulars from that usually employed by English authors. Schleiden says:—

"Morphology is the study of the forms of plants and of their several parts. It is divisible into a *general branch*, which elucidates all that has reference to plants and their organs in general; and a *special branch*, which treats of plants according to principal groups, as well as their individual organs; and this latter branch again is separable into two parallel sections, namely, the delineation of external form, and the delineation of internal structure, or of the peculiar composition of plants and their parts from various tissues."

In the section on general morphology certain external forms of the different parts of the plant are described, and definitions of terms given, but this section is very short and imperfect; the greater portion of the entire work being occupied with what Schleiden terms Special Morphology. Under the head of Special Morphology, a description is given of the structure and development of the different orders of plants, from the algæ through the orders of cryptogamic plants to the most highly developed of the flowering plants. The little that is known of the mode of development of the algæ, fungi, lichens, characeæ, hæpaticæ, mosses and ferns is clearly described, accompanied by a critical examination of the labours of preceding phytologists.

The root and its modifications, axis, or stem; the folari organs, the parts of the flower and fruit of monocotyledons and dicotyledons are successively examined. We can afford only space, in this most interesting field, to notice, that Schleiden traces the pollen-tube into the hilus of the seed-buds, and enumerates a large number of plants, of widely-separated natural orders, in which he has clearly traced the pollen-tube from the stigma to the nucleus of the seed-bud. The end of the pollen-tube having penetrated the embryonic sac, forms a cylindrical or ovate utricle, communicating with the pollen-tube; but, as the utricle increases in bulk by the development of cells within it, while the rest of the pollen-tube within the ovule remains of the original size, this part appears as fine thread which suspends the nascent embryo. Further development of cells occurs, and the embryo is completed; the part of the embryo which corresponds to the point of the pollen-tube being always developed into the bud, while the opposite part, corresponding to the suspensory filament, becomes the radicle. This appears to be a satisfactory explanation of the long-mooted question of the influence of the pollen in the formation (not of the seed, for seeds containing no embryo can be fully developed in the absence of the pollen) of the embryo.

The Fourth Book, on Organology, is occupied with the functions of the entire plant, and of its separate parts. The contents of this book are:—The Life of the entire Plant—Germination—Growth—The Process of Nutrition—Food of Plants—Absorption and Excretion—Assimilation of Food—Motion of the Sap—Reproduction and Death of the entire Plant. The special phenomena treated of are:—Development of Heat—Development of Light—and the movement of parts of Plants. All these subjects are discussed with great ability; sometimes, we must admit, with some degree of acrimonious feeling towards other investigators; and they require careful study.

The appendix contains tables on agricultural chemistry, some emendations of passages in the preceding portions of the work, and a valuable essay on the use of the microscope in botanical investigations. The author seems to know absolutely nothing of English microscopes, since he represents them as bearing no comparison with those of Germany. If, however, the microscopes Professor Ehrengberg brought with him in his visit to England, about four years ago, are to be taken as examples of the best German microscopes, we are able, from personal observation, to reverse the statement, and say, that the German microscopes are much inferior to those manufactured by our first opticians. Schleiden very truly remarks, that extremely expensive microscopes are not absolutely necessary for these investigations; that with a power of 300 or 400 diameters much may be done, and that higher powers are more rarely required.

We have now presented to our readers a succinct analysis of the contents of a work which does great credit to its author for extensive acquirements, and, what is of greater importance, original views and investigations. We could have wished to examine some of his original observations *in extenso*, but the limits assigned to us are too narrow to permit more than a cursory notice.

We cannot conclude without paying our tribute of gratitude to Dr. Lankester for the able manner in which the translation has been performed, and the almost entire absence of the German idiom observable throughout the translation.

On a New and Successful Treatment for Febrile and other Diseases through the Medium of the Cutaneous Surface. Illustrated with Cases. By WILLIAM TAYLOR, M.R.C.S.E., Surgeon to the Clerkenwell Infirmary, &c. &c. Pp. 169. London. 1850.

This little book contains an account of the success Mr. Taylor has had in the treatment of typhus, scarlet, and other continued fevers, insanity, dropsy, delirium tremens, and hydrocephalus, by the inunction of a mixture of lard and suet. No matter what the local complications, Mr. Taylor declares, that if the patient's skin be only well rubbed with lard and suet, previously melted together in equal proportions, he will recover promptly and certainly.

"With regard to cases in which the treatment is applicable, let me repeat," says our author, "that its use extends to all inflammatory, typhoid, and scarlet fevers, measles, and in ever instance of acute inflammation where there is much heat and dryness of the surface. Fever," he continues, "assuming all the typhoid symptoms, will (I speak from past experience) be found to change its character under this treatment in twenty-four hours."

That Mr. Taylor fully believes all this we have no doubt; but then he has published cases in order to convince others of the value of his treatment. To these we object,—1st. That the large majority of the cases of "fever" were mere examples of febricula, a disease in which it is common to find the pulse fall from 120 to 80 or 90 in a few hours, when no grease has been applied to the skin, or, indeed, any remedial agent employed. 2ndly. That in the cases of typhus fever, attended with great depression,—just those cases of which so many die,—"the remedy did not fulfil its hoped-for purpose." 3rdly. The benefit derived from Mr. Taylor's treatment of his cases of dropsy would, by most others, have been attributed to the eleterium, diuretics, blue pill, &c., administered, and to the judicious diet and the recumbent position enforced while the inunction of lard was going on. As illustrative of Mr. Taylor's confidence in the lard and suet treatment, is an account of a publican who *would* have recovered—*but* that he drank so freely that his wife saw him "perspire gin;" and of a Common Councilman of the City of London, who actually did recover,—*only*, in consequence of partaking of City dinners, *he died*.

When he again writes on the therapeutic properties of grease, we would strongly advise Mr. Taylor to eschew all anatomical, physiological, and pathological assertions; for the man who says the portio dura is distributed to the skin of the face, and that Brunner's glands are very frequently

ulcerated in fever, is evidently not in these matters "up to the time of day."

All we are inclined to regard as rendered probable by Mr. Taylor's researches is, that gentle and frequent friction aids materially the action of diuretics in the removal of serous effusions. Let us repeat, that we are confident Mr. Taylor fully believes all his own assertions, and his cases of fever to have been what he affirms they were. All we doubt is the accuracy of his diagnosis, and the justness of his conclusions.

The Anatomist's Vade Mecum. A System of Human Anatomy. By Erasmus Wilson, F.R.S. Fifth Edition. London: 1851.

The Surgeon's Vade Mecum. By Robert Druitt. Fifth Edition. London. 1851.

Anatomy—the basis of medical science—the substratum upon which rest the pillars of its temple—to the young and sanguine mind preparing to enter the Profession, is necessarily an uninviting study. So is mathematics, so is fossil geology, so is botany—the ground-work of elementary facts can never be explored without considerable pains and industry. Facts too isolated and unconnected are uninteresting. Who can regard, with any interest, a chip of marble off one of the columns of the Parthenon, unless it conveyed to the mind some idea or recollection of the noble building to which it once belonged? Who would care to know the highways and byways of a country through which no human footstep was ever destined to ramble? Astronomers may puzzle themselves to discover the mountains and caverns in the moon, but who would care to know the anatomy of the anthropophagi, unless the facts could be brought home in some way to the apprehensions and sympathies of mankind. Facts—naked, unconnected facts, are the links only of a broken chain, and, without being associated together by some philosophical principle, unmeaning and difficult to remember. So is it with descriptive anatomy—the mere structure of bones, ligaments, muscles, nerves, blood-vessels, &c., can have little or no interest, unless viewed in their physiological relations. Therefore, are the principles of physiology intervowen by its professors with the elementary details of anatomy; and such class-books are thereby rendered more instructive and attractive to the student than they were before the light of transcendental anatomy, had dawned on this department of science.

The "Anatomist's Vade Mecum," by Erasmus Wilson, is a philosophical compendium—a handbook of all that a student requires to know of anatomy. Clear, concise, and readable; illustrated by a vast number of engravings, which are beautifully executed. The work is divided into eleven chapters, beginning with Osteology, and ending with the Anatomy of the Fœtus. As a fitting companion to this excellent manual, "The Surgeon's Vade Mecum," by Robert Druitt, claims our unqualified approbation. Ably written and practical, the young surgeon will find it an invaluable companion. The nature of these works precludes our giving extracts from them; both having reached a fifth edition, bear upon their title-page the stamp of public approbation.

The Physicians' Surgeons' and General Practitioners' Visiting List, Diary, Almanack, and Book of Engagements for 1851.

This is indeed a really useful book. Mr. Smith has this year, in accordance with the wishes of many practitioners, divided it into two parts. One, for the library table, contains an almanack, tables to show the composition and use of baths, tables to facilitate case-taking and *post-mortem* examinations, useful information with reference to the various medical and other scientific societies, a list of poisons and their antidotes, and much information which it is impossible for a man to bear in his mind, and yet information he frequently requires. We hope next year a table of foreign as well as British weights and measures will be introduced. The practitioner has only to use the second part for a week, and he will ever after consider it indispensable for the efficient discharge of his daily duties. It contains ruled lists for patients to be seen on every day in the week; ruled columns for certificates given; notice of new discoveries, &c.; for bills and accounts asked for and delivered; drugs and instruments wanted; and things lent, with place for the name and address of the borrower. On the front page is a very useful periodoscope.

GENERAL CORRESPONDENCE.

"PSYCHOLOGICAL MEDICINE."

[To the Editor of the Medical Times.]

Sir,—In your reply to a correspondent, "Psyche," in the last number of the *Medical Times*, I find the following remarkable paragraph,—"The term 'psychology' ought properly to be limited to speculations upon the *soul*. The adjective 'psychological,' applied to material forms or substances, is misplaced. Psychological medicine is nonsense."

1st. I am wholly unable to conceive why the application of the word psychology should be thus arbitrarily limited, and cannot divest myself of the notion, that you have been somewhat hasty in committing yourself to an opinion which is so much at variance with the usage of modern writers. The term *soul* is usually thought to mean the moral faculty, and the subject matter of the science of psychology is by no means simply the moral part of man's nature. What says Cousin?—(a) "this science is not a romance concerning the nature of the soul, its origin, and its end; it is the true history of the soul, (here used for mind,) written by reflection, at the dictation of consciousness and memory. It is *the mind* falling back upon itself, and contemplating the spectacle presented by itself. It is occupied entirely with internal facts; phenomena perceptible and appreciable by consciousness. I call it 'psychology,' or, again, 'phenomenology,' in order to mark the nature of its objects." Thus, the term psychology *is* not limited by writers on the subject to speculations on the soul, nor am I acquainted with any valid reason why it *ought* to be so limited. It is derived from ψυχή, a word employed in the Homeric writings to denote the principle of animal life, which Homer conceived to be the breath, hence ψυχὴ from ψύχω, to "blow or breathe." The immaterial thinking principle Homer designates generally by the term θυμὸς. Θυμὸς "id fere est," says Halbkart,(b) "quod Latini animmum vocant, agitque omnia, quæ animus agere solet; nam primo vult appetit aversaturque, deinde cogitat, recordatur, obliviscitur." Νοῦς, "understanding," and μένος, "desire, impulse, will," are modes in which the θυμὸς manifests itself. Thus again, with reference to its etymology, I cannot discover why the term "psychology" *ought* to be limited to speculations upon the soul.

2nd. The word ψυχή, in its primitive sense, denotes something material, viz., breath, and therefore I cannot regard the application of the adjective "psychological" to material forms or substances as misplaced. In many European languages, writers have been for some time accustomed to use it in that sense. "Psychologische zeitschrift" is an instance not unknown to Germans; annales "psychologiques" to the French; nor are we English wholly unused to "psychological" journal. Indeed, you yourself, notwithstanding that you so strongly denounce the application of the adjective psychological to material forms or substances, yet allude, in your reply to "Zeta," to a "psychological" magazine—a thing which, as many a poor reader can attest, is by no means of an imponderable or immaterial nature. Having selected "Contributions to Psychological Medicine" as an appropriate title to some papers which are now in course of publication in your journal, I have deemed myself compelled, either to plead guilty to writing nonsense, or to defend an expression, the correctness of which you have so pointedly impugned. I prefer the latter alternative, and cannot but maintain, that "psychological medicine" is not nonsense, but, on the contrary, a strictly correct expression, its use being sanctioned both by the etymology of the word, and by the custom and usage of many writers.—I am, &c.,

22, Finsbury-square. Nicholas Parker.

[We have much pleasure in inserting the above letter from Dr. Parker, but still adhere to our opinion, that the word "psychology" ought to be limited to speculations upon the soul.

It is quite true that ψυχὴ means, in "*its* primitive sense," *breath*; but Dr. Parker appears to forget that the word breath was never used to denote anything material by the ancients, but the contrary. To avoid any misinterpretation between the Greek and English languages upon our *dictum*, let Dr. Parker turn to the Greek and English Lexicon, and under the article ψυχή what will he find? "ψυχή," breath, used *especially* as the sign of life, Spirit, &c., as ψυχὴ τε μένος τε.—*Il.* v. 296; it "leaves the body with the blood ψυχὴ δε κατ' ὀυταμενὴν ἀπὸ ἕλκεος ἔσσυτο σὺν ἰῷ

(a) "Philosophical Fragments; Classification of Philosophical Questions."
(b) "Psychologia Homerica," 1766.

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"The soul, or immortal part of man as opposed to his body or perishable part. In Homer *only* used in signification of a departed soul or spirit, a ghost. He represents it as *bodiless*, not to be seized by mortal hands—(Od. ii 207) but yet keeping the form of him who owned it." Homer, in short, never used the word in a material, but always in a sense profoundly spiritual. "The word is used by Homer frequently to signify the *inmost* soul." ("Greek and English Lexicon," Art. ψυχή, by H. Liddell and R. Scott.) If Dr. Parker will refer to Brucker's "Historia Critica Philosophiæ," Ritter's "Geschichte der Philosophie," or any history of ancient philosophy, he will find that all the Greek philosophers attached the same spiritual meaning to the word as Homer. From this derivative, about the middle of the seventeenth century, the word psychology was introduced into metaphysical literature; and if Dr. Parker will look out the word *in* Johnson's, or in any other dictionary, he will find our interpretation of it fully supported. "Psychology," observes Johnson, from ψυχή *soul*, and λόγος a discourse; "treatise on the soul; inquiry into the nature and properties of the soul." Again, if he will consult the "Etymological and Technicalogical Dictionary of Scientific Terms," he will find "Psychology, from *psyche* soul, and *logos* a discourse;" "a treatise on the human soul; the doctrine of the nature and properties of the soul." (Craig.) The etymology of the word, therefore, does not sanction its use in any other sense.

2nd. The argument derived from the use of the adjective "psychological" in the very cases referred to by Dr. Parker, militates against his views. "Psychologische zeitschrift," (psychological newspaper,) "annales psychologiques," (psychological magazine or journal,) are strictly correct titles. "An adjective," says Murray, "is a word added to a substantive to express its quality." We therefore expect to find, in these journals, essays and discussions upon our spiritual nature. But when the same adjective is prefixed to a noun denoting any material substance, it becomes utterly unintelligible. We can understand the meaning of *sweet* and *bitter* almonds, but psychological almonds would puzzle even a lover of "*bons bons*." We may just as well talk of psychological cookery as psychological medicine; but, perhaps, during the marvellous year we are now entering upon, we shall hear of a Christmas turkey served up with psychological sauce, and the great exhibition itself being "psychologically considered." Jesting apart, this is not a mere verbal dispute; ambiguity of language has always been a stumbling-block in the way of intellectual philosophy; the word "psychology" ought, we conceive, to be used only in its proper sense, and the reason its application should be so limited is obviously, that precision in nomenclature is necessary in every science.—Ed. *Medical Times.*]

CONVENTION OF POOR-LAW MEDICAL OFFICERS.

[To the Editor of the Medical Times.]

Sir,—The Committee have reason to believe that Lord John Russell has expressed a desire to obtain information on the subject of Poor-law Medical Relief, and that he entertains opinions favourable to the objects of the Convention; they have, therefore, with the view of improving this auspicious indication, determined to seek an interview by Deputation, in order to present to His Lordship a Memorial, setting forth the grievances under which the Union surgeons labour. Should an interview be granted, the Committee purpose inviting those members of Parliament who have already taken an interest in the subject, to accompany the deputation, and also delegates from Provincial Medical Societies.

It is hoped, that all in the Profession who have access to members of Parliament, will immediately draw special attention to the subject, in order to secure their co-operation in the objects of the Memorial.

The Committee trust, that by a direct appeal to His Lordship, they may induce him to call the attention of the President of the Poor-Law Board to the evils complained of, so that an amelioration of the present system may be effected, or, if necessary, that the President be advised to seek from Parliament an extension of power to enable him to amend the regulations under which medical relief is now administered through the Poor-Law Board.

I am, &c.

9, Hanover-square. CHARLES F. J. LORD, Hon. Sec.

THE ALLEGED LUNATICS' FRIEND SOCIETY.

[To the Editor of the Medical Times.]

Sir,—The attention of the Committee of the Alleged Lunatic's Friend Society has been called to an article in the *Medical Times* of the 23rd Nov., entitled "Alleged Lunacy and False Imprisonment in Jersey," in which you allude to a letter of the Secretary of this Society, Mr. William Bailey, dated from that island on the 12th of October last, who has taken advantage of the case referred to, not, as you assume, to interfere in that case, but to contrast the system of protection afforded by the laws of the Channel Islands, to persons alleged to be of unsound mind, with the present deplorable state of the law of lunacy in this kingdom; under which persons may be hurried away into lunatic asylums or hospitals as private patients, by the order of a relative or stranger, upon the opinion of any two medical men, of whatever age, character, or standing in the Profession, from a physician to an apothecary, without any power to claim, even before a magistrate, a fair inquiry as to the truth of the allegations made against them; a state of law which renders it by no means absurd in Mr. Bailey to suppose that it may tend to much injustice, as we know that it has done so in many instances.

In that article you ask, why the Alleged Lunatics' Friend Society do not come forward with some specific suggestions for the amendment of the law of lunacy? The answer is, first, that they have done so. In the year 1847 a bill was drawn up by them with much consideration, and introduced into the House of Commons by Mr. Thomas Slingsby Duncombe, in which, though they did not bring forward all that they desired, they introduced such provisions as they hoped might receive the concurrence of the Legislature. The Committee have, in addition to this, repeatedly laid their views before the different Home Secretaries. They have also communicated these views to the Committee of the Law Amendment Society, who, in their Report upon the state of the law of lunacy, have adopted several of their suggestions. They have procured the insertion of some of these suggestions into the bill relating to the treatment of lunatics in Scotland, introduced into the House of Commons by the Lord Advocate. They have lately drawn up a bill, at the request of a member of the Upper House, and which they have entrusted to his care. They have further, at public meetings, often explained their opinions, and it is to be attributed to the general and lamentable apathy on the subject prevailing throughout the people, that these opinions, and the facts adduced, have not been more fully reported by the public press, or, that when reported, they have not been more fully and faithfully attended to.

But, Sir, although we have found it necessary to adopt these measures, and thus to take the initiative in devising as well as in demanding a reform of the law, aware of the delicacy and difficulty of the subject, and of the conflicting opinions entertained respecting it, we do not, as the Commissioners in Lunacy, and as those members of the medical Profession who are interested in the present system, appear to do, assume to ourselves infallibility; but it has been our constant aim to procure a Committee in either House of Parliament to inquire into the question previous to legislation; and we have continually presented petitions to both Houses of Parliament to that effect, in which we have exposed the abuses and imperfections of the existing laws. Unfortunately, however, those suggestions and those applications to Parliament have not hitherto been acceded to, although they have excited considerable attention.

As you have made an attack upon the conduct of the Society, the Committee trust that you will do them the justice to insert this reply in your next number.

I am, &c.,

JOHN T. PERCEVAL, Hon. Sec.

44, Craven-street, Strand.

PERICARDITIS.

[To the Editor of the Medical Times.]

Sir,—In the correspondence which has taken place between Dr. Kidd and myself on the subject of pericarditis, my object was, in my first letter, to enter a protest against the opinion of Dr. Kidd, as to the curability of pericarditis; and, by so doing, to call from him the evidence on which that opinion was founded. In reply to that letter, Dr. Kidd, instead of furnishing such evidence, threw the burden of proof on me. In my second letter I supplied the grounds of my own opinion sufficiently for all the purposes of argument; still, however, Dr. Kidd has not adduced a single fact, as far as I can perceive, in support of the view he entertains. Until he does so, I shall beg leave, on my part, to close the cor-

respondence, with every feeling of courtesy towards Dr. Kidd, and of gratitude to yourself for the space granted me in your journal.

There are a few points in Dr. Kidd's last letter which might be commented on; but, as they do not bear very intimately on the question at issue, I shall pass them over.

I am, &c., WILLIAM DAVIES, M.D.

Bath.

REDUCTION OF DISLOCATED FEMUR.

[To the Editor of the Medical Times.]

SIR,—Reading in your twenty-third number, December 7th, p. 600, "On an Easy Mode of Reducing a Dislocated Femur, by Dr. Mayr," it occurred to me that I should only be doing justice to myself, as far as priority is concerned, to call attention to a case which came under my charge some seven years since in the Royal South Hants Infirmary, and of which I sent a statement at the time to the *Lancet* and the *Provincial Medical and Surgical Journal*. It was of a muscular man, about thirty years of age, who from an accident on shipboard had dislocated the left femur backwards. The head of the bone seemed determinedly fixed on the dorsum ilii so as to resist effectually all our attempts to dislodge it by continued traction in the usual way, when it occurred to my mind that the manipulation by which we disengage the leg of a fowl, for example, in carving, was just the kind of action wanted in this case. The same abduction which brought the head out of the acetabulum forwards in one case, would in the other raise it from behind the acetabulum, and place it in a position to fall readily into its natural cavity, and this without having any powerful muscular action to overcome.

I, therefore, placed the patient supine on the bed, and by a towel round the pelvis, fixed to the opposite side of the bedstead, with the help of assistants kept these bones immovable. I then drew up the left foot till it rested against the inside of the other knee, where an assistant held it.

In this state, it is obvious that the head, neck, and shaft of the femur are all on the same plane, which also intersects the acetabulum, so that any motion of the extremity of the bone outwards must necessarily move the head of the bone in the desired direction. Applying, then, my right hand upon the trochanter major, I gradually abducted the knee with my left, using the slightest effort, when, with an audible start, the reduction was at once accomplished.

I mentioned then and afterwards to my colleagues, my desire that the plan should be tried on any future occasion. I thought I had pointed out sufficiently the principles on which it was based,—demonstrable on the skeleton,—and which I still think clearer and more correct than the uncertain rotatory movements referred to in your report.

I think the principle also applicable in other cases, where we have strong muscular action to contend with. If it is important, I will endeavour to find you the date of the above case.—I am, &c.,

Midland-house, Southampton. H. CLARK.

CONTEMPORARY CRITICISM.

[To the Editor of the Medical Times.]

SIR,—In a journal, lately circulated *gratuitously* to a pretty large extent among the members of our Profession, is one article which caused some friends and myself so much merriment, that at this merry season I cannot refrain from asking you to reprint some half dozen lines of it, with a few words as commentary. Thus opens the funny document:—

"*To the* Physicians, Surgeons, and Apothecaries in General Practice throughout the United Kingdom:—Gentlemen, *Our aspirations* are *invoked* in behalf of the profession of medicine in this great country, *and* of the millions of *rational* beings which people its surface *and* are subject to the infirmities and diseases incidental to the highest and most complicated part of organised nature."

Now, Sir, a few questions naturally arise on reading this *natural* passage.

1st. Whose aspirations are invoked?

2nd. What are the things here called "aspirations?"

3rd. Who has *invoked* these aspirations?

4th. Why are the irrational inhabitants of Bethlem, Hanwell, &c., excluded? Do not general practitioners treat insane patients?

5th. Seeing that the rational beings here spoken of dwell *on* the "surface" of this great country, I suppose there must be certain rational beings who dwell *below* the surface. Who are these, and where are they to be found? No "aspirations," it will be observed, have been "invoked on their behalf."

6th. Seeing that the rational beings "*which* are subject to infirmities and diseases," are these alone in whose behalf "our aspirations are invoked," can you or your readers inform me where, on "the surface of this great country," are to be found rational beings (to say nothing of madmen, for with them my *stilted* friend has nothing to do) not subject to "the infirmities and diseases incidental" to human nature?

7th. Can you or your readers tell me which is "the highest and most complicated part of organised nature?" When I was a student I dissected an ass: it seemed to me as complicated as a man, just as the paragraph I am now dissecting is as complicated as any to be found among the rational writings of the day. One of my friends thought the liver the most complicated part of organised nature; another the spleen; while a third suggested that the brain was at once the highest and the most complicated.

I trust that some one will be able to unravel this curious passage.

But, Sir, before I conclude, if you will permit me, I will ask one question of the Editor of the *Institute*: it is, *Who* are the men nominally holding "the *highest* positions" in the Profession, who teach the public to "regard homœopathists, hydropathists, mesmerists, and charlatans, as more worthy" than the General Practitioners of England? I say, Sir, the Editor of the *Institute* in this passage has either slandered men whom, perhaps, he envies, or he knows that which he is bound to divulge, in order that the men guilty of such gross professional iniquity may meet with the contempt and punishment they so richly deserve. Oh, Sir! why will not men strive to promote harmony, and not to stir up yet more bitter feelings than already exist among the members of our Profession? I am, &c.

ESSE QUAM VIDERI.

ILLEGAL PRACTITIONERS.

[To the Editor of the Medical Times.]

SIR,—Discussions on the subject of "unqualified" and "illegal" practitioners have frequently found a place in your largely-circulated periodical, whose columns seem at all times open to fair and honourable communications, no matter who the party referred to may be—a pretty good proof, if such were wanting, that the high standing of the *Medical Times* has been attained by open, manly, and upright discussion. Under this impression I address you now.

I had the curiosity to look into that valuable tell-tale, the Medical Directory, for the name of a gentleman which I saw appended to a letter in your journal of the 26th ultimo, viz., William Foss, who seemed to me to glory in being able to quote such decisive testimony against Dr. Jones, of Washington, having any "legal right to practise in England as a general practitioner."

I may mention, before going further, that I have not the honour of either gentleman's acquaintance. All I know is that the latter gentleman is an M.D. and L.R.C.S. Edinb., and therefore, I presume, *knows how to dispense* as well as prescribe. I therefore looked with some interest for the name in question, and was rather surprised, considering the tenor of his note, to find him entered this:—

"Foss, William, High-street, Stockton-on-Tees, L.S.A., 1837, Surg. (!) to Stockton Dispensary." Now, before laying down the law to Dr. Jones, perhaps it would have been better for Mr. Foss to have looked nearer home. Whether he considers the L.S.A. gives him a *legal title* to practise as a surgeon, and assume the title also, is a point he will possibly be good enough to answer for himself.

No one doubts, Sir, the present power of the Apothecaries' Company to prosecute men whose qualifications are from Scotland or Ireland, who have not their licence. Not a few have so suffered; thus putting the matter too surely beyond all doubt. All liberal-minded practitioners must feel, however, it is "more honoured in the breach than the observance." At least, it certainly does seem unbecoming in *medical men* to foster and encourage that right being carried into execution—to act the part of police to the Apothecaries' Company, who are perfectly able to look after their own concerns, without such undignified assistance. The Medical Profession would rise higher in public estimation, and be occupied with more credit to itself, if there were more determined combination against the common enemy—the quack—and less of that petty jealousy towards professional brethren of undoubted qualifications from the sister countries. I am, Sir, &c.,

A PRACTITIONER IN DURHAM.

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REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

F. Hird, Esq., Vice-president, in the Chair.

ANENCEPHALOUS MONSTROSITY.

Mr. Berlase Childs exhibited to the Society the head of an anencephalous fœtus. The mother was attended by Mr. Read, of Jewin-street. The labour was a natural one, and the trunk of the child perfect in its development. On examining the head there appeared to be an arrest of development in the frontal, the two parietal, the squamous portion of the temporal and in the occipital bones; the situation of the brain was occupied by a growth having all the physical appearances of a large vascular nævus. On a careful dissection of the parts, this vascular protuberance was found to be covered by a membrane similar in its appearance to the dura mater, and continuous with the proper coverings of the spinal cord. The cord itself appeared to terminate at the border of the foramen magnum. The child lived 24 hours. Mr. Childs said that, according to Vogel, the literature of these cases was abundant, in consequence of their frequency, they, in his opinion, forming more than one-third part of all human monstrosities; but this statement was at variance with the statistics of Mr. Wilde, in his work on Austria. At the Royal Imperial Hospital of Vienna, out of 23,400 births, 88 cases of monstrosity occurred, and only two of the anencephalous variety. Geoffroy St. Hilaire has separated this group into two families, viz., "pseudencephali," containing in the place of the brain a soft reddish vascular protuberance, and "anencephali," in which the brain is totally absent, without being replaced, as in the former instance, by a foreign substance. Mr. Childs considered that the specimen before the Society was of the pseudencephalic family. In those cases in which no substitute for the brain is found, and where the cord terminates in a simple tubercle, he (Mr. Childs) thought that the theory which accounted for those deficiencies would hold good; viz., that at some period of fœtal life the brain vesicles burst, and the progress of development, as a consequence, is arrested. But where, as in the instance before them, cysts containing brain and fatty matter, together with vascular tissue, occupy the place of the cerebral organs, he (Mr. Childs) thought it not irrational to suppose that the vesicles go on developing themselves in an irregular manner with a loss of that organic power by which cerebral matter is produced in its normal quantity and relations. A microscopical examination of the tumour in this case displayed blood corpuscles and fat globules, brain cysts with vascular and cellular tissue. With the arrest of development in the brain, a similar arrest takes place in the cranial vertebræ; but he (Mr. Childs) was informed by Mr. Holmes Coote, whose work on the Homologies of the Skeleton was well known and esteemed, that the bodies of the cranial vertebræ are always found, although altered in shape and coalesced, to form irregular masses. The arches of the cranial vertebræ are always imperfect, but the separate cranial pieces may readily be determined. He (Mr. Childs) had made no examination of the nerves of respiration and the special senses, as it would have interfered with the appearance of the head, which he had been desirous of exhibiting to the Society as little injured as possible; but he should feel much pleasure in doing so, and would lay the results before them at a future meeting. Mr. Childs then exhibited to the Society two very beautiful preparations of cranial vertebræ, for which he was indebted to the kindness of Mr. Holmes Coote, who had prepared them for the museum of St. Bartholomew's Hospital. One was the disarticulated skull of a full-grown fœtus, and the other that of an anencephalous fœtus. The preparations were much admired by the fellows of the Society.

ERYSIPELAS IN AN INFANT.

Mr. Henry Smith read the details of a case of erysipelas, spreading over the whole body of an infant only a few weeks old, attended with inflammation of both knees, and with sloughing of the scrotum, ending in recovery.

Early in August, Mr. Lloyd, resident surgeon to the Bloomsbury Dispensary, asked him to see an infant six weeks old. The whole of the left knee was immensely swollen, and a thin, unhealthy discharge (purulent) came from an opening just over the outer condyle of the femur; through this opening a probe could be passed a long distance under the tissues of the thigh; it did not appear to communicate with the joint. About a fortnight previously a swelling appeared in that situation, which Mr. Lloyd eventually punctured, and evacuated a quantity of matter. A poultice was ordered to the part, and the child, although suffering and weak, took the breast pretty well. Three days after, Mr. Smith again saw the child with Mr. Lloyd; erysipelas had attacked the left thigh, and extended to the buttock. Next day nearly the whole of the back was involved. Three days after this the whole limb was much swollen, the foot very œdematous, and the scrotum enormously distended. A profuse discharge at the same time continued from the knee. The infant now began to feel the effects of the disorder very much; vomited its milk constantly, lost flesh, and did not sleep; it was, therefore, ordered a mixture containing sp. amm. aromat. ʒss.; tinct. opii, mjij.,; aqua ʒiss.;—a teaspoonful three times a day. Next day, 16th, erysipelas now covers the whole chest, left arm, abdomen, and shoulder, but the back is clear. 17th. Erysipelas much the same, but scrotum greatly distended; discharge from knee still considerable and unhealthy; it appears to come from a depth, and has not free exit. Mr. Smith made the opening larger, and at the same time punctured the scrotum. The vomiting had ceased, and the breast was taken readily. 20th. Erysipelas all subsided; but the scrotum still greatly swollen, and livid at the under part; at one spot it is beginning to slough. Two or three incisions were made, therefore, through these parts, care being taken that the child should not lose much blood; discharge from knee healthier, and less in quantity. Child continues to bear up well. Continue mixture. 24th. A large slough of the skin and cellular tissue of the scrotum has taken place, and erysipelas has to-day attacked the left side of the face, and both the upper extremities. 28th. Erysipelas has subsided on the left side of the face, but has now attacked the right cheek, which is greatly swollen; slough from scrotum has separated, and discharge from knee nearly subsided; both hands very œdematous. Sept. 4. Considerable œdema of both legs, but no erysipelatous blush; the patient got well a few days afterwards. A fortnight after this, the mother again brought the child to Mr. Smith, she being in considerable alarm in consequence of the right knee having become suddenly swollen to a great extent. It was universally swollen and very hot, and caused great pain. Lead lotion was ordered; the swelling however increased greatly, and in a few days great distension occurred just below the patella; it was evident that there was a large accumulation of fluid there. Tincture of iodine was applied over this; it gradually diminished in size, and left the joint as small and apparently as sound as it was before. The child is now looking strong and hearty. The points of interest in this case are—1st. The occurrence of erysipelas in so very young a child. Mr. Smith never observed it in an infant before. Mr. Lloyd, who has had very great experience for many years amongst the poor of a large district, states that he has never observed an instance of a similar nature.(a) 2ndly. That erysipelas should attack successively almost every part of the body, although the exciting cause of its appearance, namely, the wound in the knee, was limited to one of the extremities. 3rdly. That so young an infant should be able to bear up against, not only the mere extensive erysipelatous inflammation, but against the profuse purulent discharge from the knee, and the mischief in the scrotum. 4thly. That the great effusion of the knee should be so readily absorbed, and not hinder the functions of the joint

FUNCTIONAL PARALYSIS.

A paper by Mr. Edwin Lee, on functional paralysis, was read. After alluding to the difficulty of diagnosis between functional and structural paralysis, and also between cases of functional paralysis arising from causes of centric and eccentric origin, the author observed, that a not unfrequent origin of hemiplegia or partial paralyses, which have been considered as depending upon congestion, effusion, or structural change in the brain or spinal cord, is a deficiency of due cerebral excitation, either from an imperfect supply of arterial blood to the brain, from causes of an exhausting or depressing nature, mental or otherwise, by which the faculty of volition is directly affected, and, in some instances, from original or long-continued inactivity of parts, in consequence of which the conducting powers of the nerves are impaired. As illustrations of these local paralyses, Mr. Lee cited dumbness in cases of congenital deafness, the slowness of speech in idiots, the destruction of life by what is termed nervous apoplexy, as an example of the highest degree of exhaustion or deficiency of nervous power, no pathological change being found at the autopsy, the utter absence of structural disease in numerous cases of paralysis, as ascertained by M. Lelert, physician to the Bicêtre, and the occurrence of death, or of a privation of power, in particular parts from mental emotions, such as joy, fright, &c.—parts which, though employed in the performance of ordinary actions, or whose

(a) About two years ago, we attended a male infant, about seven weeks, with erysipelas affecting both the lower extremities. The inflammation was very severe, but yielded to the measures employed, and the child perfectly recovered. It was not of traumatic origin.—Reporter.

actions are more complicated, and require greater exertion of volition for their healthy performance, are necessarily more liable to be affected by whatever impairs the integrity of the faculty, than those which are directly controlled by the will, and have a more simple office. Thus the muscles of the larynx, pharynx, of the bladder, and the sphincter ani, are more subject to loss of power from mental emotion, as in the instance of temporary privation of speech, and inability to retain the alvine contents, &c., from fear, than are the flexors and extensors of the extremities. In states of nervous weakness, or paresis, from whatever cause, flexion and extension of the limbs are much more easily performed than rotation inwards or outwards; the inferior extremities are more frequently affected than the superior, whereas the muscles of the tongue and of the face, deriving their nerves directly, and without any long *trajet*, from the central organ, are affected only in extreme cases, as regards their more simple movements. The symptoms may, however, be determined to particular parts by injuries or other local causes; these are exceptions, however. These complaints are often intractable, and but little relieved by ordinary remedies, in consequence of their peculiar nature and causes not being in general sufficiently considered. Where the remedial means are chiefly directed against the mere symptom of loss of power they will mostly fail. The patient's attention being concentrated upon the complaint, it is very often kept up by habit alone for months or years, till some circumstance or other occurs to break the chain, by exciting the faculty of volition to action. To such a change, the author referred the supposed curative power of charlatans and miracle-mongers, and, in illustration, he cited the case of a young female, paraplegiac for years, who was cured of her disease by immersion in the Ouse, under the superintendence of a clergyman. This, like many similar cases, the author observed, had, in all probability, been treated in a mere routine manner, and may suffice to indicate that these complaints, especially when of long duration, are more likely to be remedied by circumstances which divert the patient's attention from their consideration by mental agencies, tending to excite the torpid volition, or by any means in which the patient can be induced to have confidence; the apprehension of a painful or disagreeable application, as of the actual cautery, or of blisters, has sometimes a beneficial effect; whereas, the excessive sympathy of relatives and friends, the too minute attention on the part of the practitioner to particular symptoms, and a purely pharmaceutical mode of treatment, will invariably tend to retard recovery.

Dr. Forbes Winslow objected to the term "functional" according to the signification attached to it by the author of the paper. Dr. Winslow thought it physiologically and pathologically incorrect to assert, that an *abstract function* admitted of being diseased apart from any physical affection. He did not believe that any function could *per se* be disordered. This doctrine was especially applicable to the disease under consideration. He considered that every action of the nerve fibre, tube, vesicle, or tissue, was invariably associated with, or the immediate result of, a *molecular change in the condition of the nerve*; such was the particular action of a *motor* nerve, when volition is transmitted from the sensorium to a distant portion of the body, and of the nerve of *sensation*, when impressions are conveyed from remote parts of the frame to the brain. He (Dr. Winslow) argued that there was a natural, healthy, and normal action of a nerve, to which physiologists, for want of a more expressive term, applied the word "molecular," and that any deviation from the natural, healthy, and normal function of the nerve, must either be the direct effect of, or be invariably associated with, an altered condition of the molecular action of the part affected. He thought that every action of the mind was the result of some molecular condition of the nerve vesicle and fibre. In paralysis, however trifling and transient in its character, Dr. Winslow maintained, that there was some deviation from the healthy and natural state of the nervous tissue. This deviation or change often escaped the minute examination of the most careful microscopist. Paralysis often resulted from the most insignificant alteration in the nervous matter. It might arise from some affection of the sheath of the nerve; from a slight effusion within the sheath, from some abnormal condition or alteration of the cineritious granular texture of the brain or nucleated nerve vesicles. It might also be associated with some morbid arrangement of the fibrous part of the nerve tissue, or some altered condition of the chemical constituent of the brain mass, or poisoned state of the blood circulating through the brain, or supplying the nervous expansions. In certain disorders of the brain giving rise to paralysis, it was Dr. Winslow's opinion, that the "vis nervosa," "nervous energy," "force," or "fluid," as it had been variously designated by physiologists, might itself be the seat of the disease. The nervous fluid, he (Dr. Winslow) considered to be a blood product, and therefore it was not difficult to account for any alteration in the nervous energy itself, if the blood contained any poisonous matter, or was vitiated in its condition. He thought that *à priori* reasoning would lead us to the opinion, that no purely functional affection could exist. Before the pathologist asserted that no morbid state of nervous tissue was present in any given case of disease of its special mode of action, it would be necessary to scrutinise carefully the condition of the delicate nerve fibre, vesicle, and cell, to ascertain the state of the blood circulating through the brain; the condition of the nervous matter in reference to its chemical properties; the exact size and weight of the brain, and any deviations in colour or tint (often the only signs of organic mischief) discoverable in the vesicular or granular texture of the brain. Cerebral pathology was necessarily involved in great obscurity. Physiologists had endeavoured to discover the special functions of particular portions of the brain, and had, to some extent, succeeded. It was a well-established pathological fact, that no effusion, or extravasation, or injury could be inflicted on the corpora striata or thalami, without its being immediately followed by paralysis. In all cases of sudden affections of the motor power, preceded by well-marked head symptoms, we might safely predicate, that either in the corpora striata or thalami, disease would be detected. In considering the subject of paralysis practically, it was of great importance for the physician to diagnose successfully between cerebral paralysis, spinal paralysis, and that morbid condition of the sensor and motor nerves which commenced in the periphery of the nerves themselves. Dr. M. Hall, as the result of his laborious experiments and inquiries, had conclusively established, that in cerebral paralysis there existed augmented irritability, tonicity of muscular fibre, with emotional influence little if at all impaired; but that, in spinal paralysis, when the influence of both brain and spinal marrow was cut off, the opposite symptoms were manifested, viz., diminished irritability, muscular tone, &c. These were important physiological data to bear in mind in connexion with the history of any given case, when forming an opinion in difficult and obscure cases of paralysis. Dr. Winslow thought that the condition of the brain depended upon the proportion of phosphorus it contained; that in many cases of paralysis, associated with a low condition of vitality, as well as in states of great mental depression, and in idiocy, the minimum quantity of this important brain element would be discovered. Dr. Winslow referred to an affection which he termed "*mental paralysis*," unassociated with true insanity or dementia, and where the patient lost suddenly all command over a train of thought or idea.

In the discussion that followed, Drs. Murphy, Crisp, and Snow Beck, and Messrs. Hird, Alder Fisher, Dendy, and Chippendale took part. They in general supported Mr. Lee's views, as to the existence of functional paralysis, without the presence of structural change, and cited cases and microscopic investigations to strengthen their statements.

STATISTICS OF MORTALITY IN LONDON FOR THE YEAR 1850.

By MR. B. SMITH.

The year which has just closed is marked by a most gratifying result as to the state of the public health compared with the mortality of four previous years. In no year since 1845 has the amount of deaths been so small; and in that year the total was only 247 less than that of 1850. Although, however, we may congratulate ourselves on this fact, it must be recollected that the awful mortality of 1849, under the cholera epidemic, has partly tended to this result by the havoc it made among those most obnoxious to disease, and many of whom, it may fairly be presumed, would have been included in this year's bills of mortality but for the cholera, under attacks of which they were prematurely cut off.

The total deaths for the year being 48,579, they are divided as to disease, &c., according to the following tables, and which also give other particulars:—

METROPOLIS.

TABLE showing the BIRTHS and DEATHS for the SECOND HALF-YEAR of 1850, the several DISEASES, BIRTHS and DEATHS of MALES and FEMALES, AGE at DEATH, the DISTRICTS in which the DEATHS occurred, the TEMPERATURE and METEOROLOGY, the INCREASE of POPULATION, and the ANNUAL RESULTS.

DATE. Weeks ending	Zymotic Diseases.	Sporadic Diseases. 1.*	2.†	3.*	4.*	5.*	6.*	7.*	8.*	9.*	10.*	11.*	12.*	13.*	14.*	15.*	16.*	Births. Males.	Females.	Deaths. Males.	Females.	Total Births.	Total Deaths.	Births over Deaths.	Ages at Death. 0 to 15.	15 to 60.	60 and upwards.	Districts. West.	North.	Central.	East.	South.	Mean Height of Barometer.	Thermometer. Dry.	Dew Point.	Difference between the Temperature of the week and the same week on an average of 7 years.	General Direction of the Wind.	Amount of Horizontal Movement of the Air.	Rain in Inches.
1850.																																	Inches.	°	°	°		Miles.	
July 6	159	38	168	112	38	76	37	9	8	10	...	3	32	25	30	7	25	640	607	406	388	1247	794	453	351	290	151	136	146	119	166	227	29·785	59·6	50·8	— 1·6	S.W. & W.	1090	0·72
,, 13	168	56	162	104	21	87	59	11	14	6	1	3	19	34	36	7	12	662	637	395	386	1299	781	518	362	267	142	118	151	128	171	203	29·875	59·5	51·0	— 1·5	N.	565	0·52
,, 20	176	59	162	117	31	82	72	10	9	10	3	4	25	24	37	6	24	592	601	424	439	1193	863	330	486	255	197	158	168	140	179	238	29·814	65·6	60·9	+ 4·5	N.E.	330	0·78
,, 27	272	37	170	104	33	74	52	14	8	6	1	6	31	27	31	1	28	664	680	439	459	1344	898	446	456	279	163	130	177	158	202	231	29·691	63·4	57·9	+ 2·5	E. & S.W.	625	0·83
Aug. 3	277	40	174	99	38	70	61	10	7	11	3	3	34	32	30	2	26	772	712	462	455	1484	917	567	485	288	144	119	190	166	194	248	29·859	64·3	57·9	— 0·3	N.	355	0·09
,, 10	301	46	165	100	42	78	74	20	10	7	...	2	53	32	29	5	50	707	684	497	500	1391	997	394	568	313	174	147	190	181	240	239	29·651	64·2	56·8	+ 2·7	S.W.	840	0·16
,, 17	256	53	166	106	22	69	51	12	8	7	1	3	36	23	40	...	18	689	674	441	433	1363	874	489	441	261	172	129	179	154	181	231	29·761	62·6	57·0	+ 1·2	N.	670	0·86
,, 24	252	45	166	94	36	66	63	17	11	5	1	1	26	34	46	9	34	733	683	484	441	1416	905	511	432	318	155	130	182	127	219	247	29 682	57·0	48·0	— 3·5	S.W.	955	0·67
,, 31	307	40	161	103	33	75	34	9	15	2	...	1	31	32	33	9	32	727	731	481	431	1461	892	579	411	307	164	122	181	144	208	227	29·979	56·9	48·4	— 3·5	S.W. & N.W.	1070	0·14
Sept. 7	251	46	180	94	26	80	60	12	6	8	1	4	24	26	29	9	34	724	750	486	433	1474	899	575	422	289	181	141	181	139	190	268	30·196	56 5	47·5	— 2·4	W. & N.	410	0 08
,, 14	238	47	171	95	32	91	60	13	9	9	...	5	29	32	24	20	51	725	684	463	466	1409	929	480	427	331	171	138	195	180	176	245	30 171	55·3	44·6	— 4.4	N.E.	460	0·00
,, 21	196	40	168	118	28	88	44	11	8	7	3	4	30	24	43	11	36	702	672	460	398	1374	858	516	392	302	164	119	167	132	213	227	29·851	58·4	48·3	+ 0·9	N.E. & S.E.	605	0·35
,, 28	198	47	176	126	44	99	61	18	6	10	2	4	20	26	31	29	80	750	723	525	456	1473	981	492	423	347	210	127	212	170	171	301	29·680	56·7	51·5	+ 3·3	Variable	660	0·65
Oct. 5	195	37	165	122	37	103	67	9	8	8	1	2	14	24	33	17	48	689	732	465	428	1402	893	509	403	299	190	123	178	138	202	252	29·537	52·8	45·9	— 1·2	Variable	725	0·25
,, 12	207	54	151	94	33	85	64	17	6	11	2	5	28	17	35	5	16	720	649	445	394	1369	839	530	365	279	187	123	152	131	196	237	29·738	49·3	41·1	— 2·1	S.W. & N.N.W	1250	0·31
,, 19	198	51	157	99	34	119	53	3	7	9	...	1	16	20	37	7	35	748	754	439	421	1502	860	642	347	333	166	123	148	147	232	210	29·943	49·0	42·2	— 0·5	S.W.	780	0·00
,, 26	188	41	146	97	38	120	49	19	8	8	3	2	22	17	37	20	22	693	669	417	428	1362	845	517	368	297	169	137	158	144	158	218	29·519	42·3	37·9	— 3·4	N.E.	700	0·90
Nov. 2	212	41	158	116	51	136	49	8	6	7	3	1	30	35	41	10	33	770	749	456	481	1519	945	574	444	306	194	110	181	174	213	267	29·625	46·3	43·1	+ 0·5	S.W.	975	0·01
,, 9	206	37	133	101	47	171	58	11	5	8	1	3	29	23	35	5	17	851	726	451	470	1577	921	656	399	255	217	111	205	146	214	248	29·941	50·2	44·5	+ 4·1	S.W.	1375	0·19
,, 16	209	38	167	100	35	148	53	12	8	8	2	4	28	19	38	12	25	787	794	435	473	1581	908	673	402	323	183	135	167	170	212	224	30 000	46 2	41·8	+ 1·7	S.W. & N.	835	0·09
,, 23	203	49	153	134	38	201	58	18	9	8	4	7	19	18	48	13	38	706	673	491	524	1381	1015	365	461	346	208	163	176	148	239	290	29 346	49·9	42·8	+ 3·0	S.W.	1250	1·02
,, 30	196	41	137	116	35	160	49	7	12	18	...	3	27	14	34	3	24	773	709	453	409	1482	861	621	419	289	162	137	179	138	186	218	29·595	40·5	36·3	— 3·1	S.W. & N.E.	920	0·68
Dec. 7	229	39	146	110	44	208	65	10	5	8	2	3	35	19	47	6	22	780	769	494	510	1558	1004	554	472	313	218	151	191	179	201	282	30·146	42·6	40·6	+ 1·2	S.E.	490	0·07
,, 14	200	46	165	140	46	271	48	12	12	10	...	7	30	23	45	7	27	728	706	543	547	1434	1090	344	492	318	240	177	215	166	233	299	29·935	40·1	39 2	+ 0·7	...	695	0·43
,, 21	231	48	161	149	31	274	59	13	11	6	...	3	30	22	51	17	60	729	748	561	602	1477	1166	311	570	336	259	156	219	231	247	313	29·412	38·6	35·2	— 1·5	S.W. & N.W.	940	0 71
,, 28	232	42	173	98	56	264	64	14	10	13	2	6	32	18	45	25	70	658	712	577	619	1370	1196	203	512	423	234	178	238	206	263	311	30·192	38·8	35·6	+ 0·1	S.W.	545	0·06
Total ...	5718	1138	4195	2848	949	3294	1482	319	228	208	36	90	710	630	975	259	887	18721	18221	12132	11990	36942	24112	12820	11150	8004	4849	3518	4710	4056	5309	6528							
Total First half-yr. of 1850.	4158	1132	4468	3117	1016	4528	1473	295	244	208	51	86	608	488	1174	450	909	19043	19292	12317	12140	38375	24457	13918	10211	8361	5733	3719	4772	4230	5028	6738	†	†	†	†		†	†
Yearly Total.	9876	2270	8539	5965	1965	7822	2955	614	467	411	87	176	1318	1118	2149	709	1796	37801	37513	24449	24130	75317	48579	26738	21371	16365	10082	7232	9488	8286	10337	13266	29·809	50·1	43·4	+ 0·9		735	23 92

* Under the head "Zymotic Diseases" are included:—Small Pox, Measles, Scarlatina, Hooping Cough, Croup, Thrush, Diarrhœa, Dysentery, Cholera, Influenza, Purpura and Scurvy, Ague, Remittent Fever, Infantile Fever, Typhus, Metria (or Puerperal Fever), Rheumatic Fever, Erysipelas, Syphilis, Noma or Canker, and Hydrophobia.

Under the head "Sporadic Diseases" 1. includes Dropsy, Cancer, and other diseases of uncertain or variable seat. 2. Tubercular Diseases. 3. Diseases of the Brain, Spinal Marrow, Nerves and Senses. 4. Diseases of the Heart and Blood-vessels. 5. Diseases of the Lungs and of the other Organs of Respiration. 6. Diseases of the Stomach, Liver, and other Organs of Digestion. 7. Diseases of the Kidneys. 8. Childbirth, Diseases of the Uterus, &c. 9. Rheumatism, Diseases of the Bones, Joints, &c. 10. Diseases of the Skin, Cellular Tissues, &c. 11. Malformations. 12. Premature Birth and Debility. 13. Atrophy. 14. Age. 15. Sudden. 16. Violence, Privation, Cold, and Intemperance.

† The means are here given for the year 1849.

The following shows the deaths by special diseases under various classes enumerated in the foregoing Table :—

1.	Small-pox	498	Paralysis	1,163	Disease of Spleen 12
	Measles	977	Delirium Tremens 155		8. Nephritis 28
	Scarlatina	1,178	Chorea 13		Nephria or Bright's Disease 136
	Hooping Cough	1,572	Epilepsy 286		Ischuria 10
	Croup	307	Tetanus 12		Diabetes 45
	Thrush	146	Insanity 94		Stone 31
	Diarrhœa	1,884	Convulsions 1,762		Cystitis 31
	Dysentery	182	Disease of Brain, &c. 633		Stricture of Urethra 46
	Cholera	127	5. Pericarditis 122		Disease of Kidneys, &c. 287
	Influenza	109	Aneurism 89		9. Paramenia 11
	Purpura and Scurvy	43	Disease of Heart 1,754		Ovarian Dropsy 60
	Ague	18	6. Laryngitis 189		Childbirth (see Metria) 244
	Remittent Fever	87	Bronchitis 3,282		Disease of Uterus, &c. 152
	Infantile Fever	44	Pleurisy 131		10. Arthritis 8
	Typhus	1,923	Pneumonia 3,108		Rheumatism 228
	Metria or Puerperal Fever	199	Asthma 726		Disease of Joints, &c. 175
	Rheumatic Fever	67	Disease of Lungs, &c. 866		11. Carbuncle 19
	Erysipelas	344	7. Teething 499		Phlegmon 26
	Syphilis	122	Quinsey 71		Disease of Skin, &c. 42
	Noma or Canker	17	Gastritis 96		17. Intemperance 74
	Hydrophobia	1	Enteritis 372		Privation of Food 23
2.	Hæmorrhage	219	Peritonitis 217		Want of Breast-milk 180
	Dropsy	779	Ascites 111		Neglect 5
	Abscess	89	Ulceration (of Intestines, &c.) 95		Cold 3
	Ulcer	53	Hernia 129		Poison 93
	Fistula	19	Ilens 133		Burns and Scalds 244
	Mortification	163	Intussusception 44		Hanging, &c. 229
	Cancer	889	Stricture of Intestinal Canal 47		Drowning 262
	Gout	59	Disease of Stomach, &c. 249		Fractures 549
3.	Scrofula	305	Disease of Pancreas 1		Wounds 76
	Tabes Mesenterica	752	Hepatitis 195		Other Violence 58
	Phthisis (or Consumption)	6,187	Jaundice 141		All Violence 1,511
	Hydrocephalus	1,345	Disease of Liver 542		
4.	Cephalitis	525			
	Apoplexy	1,326			

The estimated population of the metropolis for 1849 was 2,206,076,—1,032,630 males, and 1,173,446 females. Among this number, the mortality in 1850 has been in the gross, 48,579, or 1 death in 45 of the population. Of these the deaths of males were 24,449, and of females 24,130, being a proportion of 1 in 42 for the former, and of 1 in 48 for the latter. The mortality among specified ages have been, from the age of 0 to 15, 21,371, or 1 in 27 of the population at that age by the Census of 1841; from the age of 15 to 60, 16,365, or 1 in 84; and from 60 and upwards, 10,582, or 1 in 11 of those living at that period of life.

The relative mortality in each district of the metropolis is as follows:—West districts, 7,232, or 1 in 42 of the population; North districts, 9,468, or 1 in 39; Central, 8,256, or 1 in 45; East, 10,337, or 1 in 38; and South, 13,266, or 1 in 38.

In workhouses, during the past year, the deaths have amounted to 4,378; in hospitals to 3,271, and in prisons to 68; but for the last six months, the various hospitals in the metropolis have been more strictly characterised by the Registrar-General, and from the records for that period it appears that the deaths have been in workhouses, 1,926; military and naval asylums, 140; general hospitals, 1,073; hospitals for special diseases, 117; lying-in-hospitals, 12; lunatic asylums, 173; military and naval hospitals, 77; hospitals and asylums for foreigners, 15; and in prisons, 32.

The season of the year as affecting the mortality will be seen from the following statement; and which may be compared with the result as shown in 1849 :—

Season.	Deaths in 1850.	Deaths in 1849.
1st Quarter	13,219	15,438
2nd Quarter	11,238	13,008
3rd Quarter	11,578	27,109
4th Quarter	12,544	12,877

Thus it will be seen, that the cholera epidemic in 1849 seems to have changed the character of the 3rd quarter of the year, as compared with that of 1850, but is a result which holds, *as to zymotic diseases*, for the latter year also.

	Deaths from Zymotic Diseases in 1850. Weekly Average.
1st Quarter	197
2nd Quarter	174
3rd Quarter	345
4th Quarter	240

To show the relative mortality under each class of diseases in the four quarters of the year 1850, the following Table is subjoined :—

	Deaths, 1850.			
	First Quarter.	Second Quarter.	Third Quarter.	Fourth Quarter.
Zymotic Diseases	2,563	2,261	4,486	3,101
Dropsy, Cancer, and other Diseases of Uncertain Seat	753	642	601	617
Tubercular Diseases	2,399	2,468	2,351	2,130
Diseases of the Brain and Spinal Marrow	1,657	1,467	1,458	1,487
Diseases of the Heart and Blood-vessels	413	356	313	401
Diseases of the Lungs and Organs of Respiration	2,701	1,520	999	2,553
Diseases of the Stomach, Liver, and other Organs of Digestion	774	740	953	711
Diseases of the Kidneys	107	101	93	106
Childbirth, diseases of the Uterus, &c.	140	115	111	147
Rheumatism, Diseases of the Bones, Joints, &c.	91	91	74	87
Diseases of the Skin, Cellular Tissue, &c.	8	6	7	9
Malformations	25	21	23	25
Premature Birth and Debility	288	259	275	250
Atrophy	172	165	267	195
Age	948	649	582	761
Sudden Death	193	150	122	168
Violence, Privation, Cold, and Intemperance	376	349	362	362
Violence alone	343	324	328	334

The effect of the whole amount of mortality on the population must be viewed in connexion with the births during the same period. The increase of population in 1849 only amounted to 4,230, the average for the ten previous years being about 13,000; the births, however, in 1850, have amounted to 75,317, the highest number ever before exhibited; and, deducting from them the total mortality, we arrive at the result, that the population in 1850 has increased to the extent of 26,738, being 6,000 over the increase for 1846, the largest increase until 1850. This result is still more remarkable, since the weekly returns show that the far larger proportion of these children must have been begotten when the cholera was at its height in 1849, namely, in July, August, and September, and this, although the disease took off an excess among our adult population.

As respects sex, it appears that 291 more males have been born than females, and that the deaths have also been greater among males by 319, making a difference in the year between the sexes of only 28 in favour of females.

Many points of great interest are suggested by these results as following an epidemic year, and present a fruitful field of research to those who value the vital statistics of the metropolis of a nation.

I hope to pursue the subject of the statistics of zymotic diseases, especially as connected with age, sex, season, and meteorology at a future period, taking the deaths during the last ten years before 1850 as the data, and comparing these phenomena with the latter period.

MEDICAL NEWS.

Naval Appointments.—Surgeon John Jolliffe (1850) to the Pandora, 6, at Devonport; Assistant-surgeon Adam Gordon (1842) to the Indefatigable, on the North American and West India station; Surgeon Samuel Donnelly (1842) to the Samson steam-frigate, at Devonport; Assistant-surgeon James Campbell, A, (1845) to the Imaum, 72, receiving-ship at Jamaica; Julian W. Slight (1846), formerly serving in the Teazer steamer, to the Amphitrite, 24, at Portsmouth; Donald G. Pendrith (1850), acting, to the Samson; and Robert Creighton (1850), acting, to the Victory flag-ship, at Portsmouth; Assistant-surgeons William Crawford (1846) John Murphy (1848) and Joseph Browne, (1842) to the Imaum; Surgeon David Geddes, M.D. (1831), to be surgeon-superintendent to the Cornwall convict-ship. The appointment of Assistant-surgeons James Campbell, William Crawford, John Murphy and Joseph Browne, to the Imaum, and of several surgeons and assistant-surgeons recently appointed to be borne on the books of that vessel, have been made in order that they may serve in Jamaica during the prevalence of the epidemic.

NAVAL PROMOTIONS.—Assistant-surgeon James Niven, M.D. (1841), of the Seagull, 6, schooner, to be surgeon; Assistant-surgeon William McK. Saunders, M.D. (1841), of the Victory flag-ship, at Portsmouth, to be surgeon.

NORTH SOMERSET REGIMENT OF YEOMANRY CAVALRY.—Commissions signed by the Lord-Lieutenant of the county:—Assistant-surgeon Findlater Crang to be surgeon, vice Soden, resigned; William Henry Brace, gentleman, to be assistant-surgeon, vice Crang, promoted.

OBITUARY.—At Great Marlow, Bucks, on the 24th ult., William Hickman, Esq., in the ninety-fourth year of his age. The deceased was a pupil of the immortal Hunter, and had been in the active practice of his Profession upwards of half a century; he died universally respected.—Lately, in Jamaica, of the epidemic cholera, Drs. Bailey, Murcott, Tabois, and Tait, and Mr. Fadgen.—In October last, at Peshawur, Dr. Lucas, assistant surgeon, of the 61st Foot.—At Portobello, on the 14th ult., Dr. John Squair, late surgeon 8th Hussars.—At Dunsford, near Exeter, on the 6th ult., T. N. Froom, Esq., surgeon, aged 35.—At Edinburgh, on the 13th ult., John Philip, Esq., assistant surgeon, R.N., the only surviving son of John Philip, Esq., surgeon, of Kirkcaldy.

DR. PROUT, the son of the late distinguished physician, has just qualified himself for practice.

DR. CHAMBERS is in a very unsatisfactory state of health. He has given up his town residence and retired to his seat in Hampshire. The doctor is under the professional care of Dr. Marshall Hall.

PROFESSOR GRAHAM'S HEALTH.—Mr. Quain, of University College, writes:—"In the 'Medical News,' in the number of your journal of this day's date, it is mentioned with regret, that 'Professor Graham is in a very bad state of health.' I am happy to be able to correct this statement. Mr. Graham has not, at any time, been in what is commonly understood as 'bad health,' but he has lately had an acute attack of illness, from which he is now entirely recovered; and he will resume his duties at University College immediately after the Christmas vacation, on the 31st. inst. Notwithstanding this, however, it is desirable to publish this statement in your journal, in order to remove from Mr. Graham's friends at a distance the pain your former announcement was calculated to create."

MR. TOMLINE, of Orwell-park, has presented the sum of 100*l.* to the East Suffolk Hospital.

MESSRS. COOK & WILLIAMS, of Prince's-street, Hanover-square, have invented a "Respiratory Organ and Chest Protector," which is a good and inexpensive substitute for Mr. Jeffreys' respirator. It is either stock or scarf of most ready and convenient adjustment. The one for ladies is manufactured in fine stuff, of various colours, and forms a neck-tie of an elegant appearance, the elastic band which covers the mouth falls into the fold when not required.

SIR JEMSETJEE JEEJEEBHOY has offered to erect a lying-in hospital at his own cost, on ground he gives for the purpose, immediately adjoining his noble institution, the Jemsetjee Hospital. The benefits conferred on suffering humanity by this Parsee, one of nature's noblemen, are almost without a parallel. He is indeed a worthy steward of the princely fortune he possesses.

ST. MARY'S HOSPITAL.—We understand that, on the day appointed for the meeting of the Committee of this hospital, for the appointment of its Medical Officers—a day looked forward to by many an anxious candidate—a quorum could not be constituted, and the election therefore was necessarily deferred. In all matters of business, this apathy is highly reprehensible; but, in respect to the management of hospitals, and such-like institutions, it is really disgraceful.

INTERESTING DISCOVERY.—We lately reported that Professor Paget had discovered a very interesting MS. of the immortal Harvey, an account of which has just been published. When it is remembered that the great fire of London destroyed nearly all the manuscripts of the great discoverer of the circulation of the blood, the value of the one in question will be fully appreciated. We have now great pleasure in reporting the discovery of two letters of the great Albinus, by Mr. Belfour, the indefatigable Secretary to the Royal College of Surgeons, who, on looking over some old documents, accidentally came across the letters in question; they are in Latin, on the high operation for stone, and addressed to Dr. Tesbitt, the author of the well-known work on "Osteogeny." Mr. Pettigrew, in his "Medical Portrait Gallery," states that the autograph of Albinus is of very great rarity. "I am assured," says that gentleman, "by the Director of the Anatomical Collection at Leyden, of which Albinus was for many years the conservator, that among all the documents belonging to that department it is not to be found." We have reason to know that the national collection, the College of Physicians, and the Universities of Oxford and Cambridge, do not possess any manuscripts of this renowned anatomist, of whom we gave a "pencilling" in the eleventh volume, page 150, of this Journal. Mr. Stone, the Librarian of the College, is the fortunate possessor of ten letters from Albinus, which were formerly in the possession of John Abernethy. We have published one in the memoir alluded to above.

EPIDEMIC DISEASES.—The cholera, at a late date, was reported to be raging more violently than ever in Jamaica, in those parts of the island which had not been previously attacked. Five thousand deaths have occurred in Kingston. Among the medical men deceased were Drs. Bailey, Murcott, Tabois, and Tait, and Mr. Fadgen. From 8,000 to 10,000 deaths have already happened throughout the island. In Kingston, Spanish Town, and Port Royal, the mortality is much diminished. The negroes, in their low, filthy houses, with their bad habits, and disadvantages of all sorts, have been the chief victims. There have been comparatively few deaths of persons in good position; but these have been increasing latterly, and we all still live under considerable apprehension. In the Plantain Garden River District, 1,000 persons have been swept away. From St. David's frightful accounts have been brought. Not only have the great mass of the population between the Eleven Mile Tavern and Yallah's, and a large number of the inhabitants in and about Elsington, been swept away, but it is said that the whole police-force, serjeants, corporals, and privates, have been immolated. In the mountain districts it is equally destructive. At Radnor and other places, 3000 feet above the level of the sea, hitherto considered to be very healthy localities, this dreadful epidemic has shown itself, and also at Middleton, Charlottenburgh, Chester Vale, Newton, and other properties. By the last accounts from Barbadoes, cholera appears to have broken out among the troops stationed in the garrison at St. Ann's in that island. Cephalonia is in a fearful state from the ravages of this disease, and from famine: 200 die weekly, being at the rate of 50 per cent. of those attacked. This fearful epidemic has also broken out in St. Francisco, California, and is spreading with great rapidity. The city hospital had been destroyed by fire, but all the inhabitants were rescued. At Sacramento City, the deaths are 80 daily. Sickness is very prevalent at Grey Town, Mosquito. Her Majesty's ship Indefatigable has thirty or forty cases of fever on board. From Peshawur to Mooltan we hear of nothing but fever. At the former station, two officers of the 61st Foot, Dr. Lucas and Lieutenant Armstrong, have died, but not from the endemic; the European soldiers are dying daily. Medical supplies were running short, and altogether the force was in a miserable plight, nearly one-half being in hospital. At Lahore, on the 25th October, there were sick, 18 officers and 1516 men, out of a force of 146 officers and 7725 men. Twelve European soldiers had died during the week,—not one native. On the 31st, there were 21 officers and 1466 men in hospital; five deaths during the week, of which four were Europeans. The 14th Dragoons had one-fourth their number in hospital also. At Ghelum and at Wuzeerabad sickness was as prevalent as at Lahore. The 71st Native Infantry, with 600 men in hospital, had gone into camp at Peshawur, where the mortality was increasing. Reports, received since the above was written, state that out of 7471 rank and file in garrison at Lahore, 1192 were in hospital. Of the 1st European Fusiliers, 396 men out of 819 were in hospital. The 71st native infantry, having 601 men in hospital, had moved from Peshawur into camp at Chunkunee, a few miles on the Atok road. The fearful prevalence of endemic disease has, it is said, destroyed all discipline among the troops. The disease is a low intermittent fever, occasionally accompanied with dysentery. It is always very prevalent in India after the rainy season is over, especially in low districts, subject to inundations. All new countries in India are at first very unhealthy for the troops, the more so from that curse of the soldiery, bad barrack accommodation. It is said that Peshawur and Lahore are not of themselves really unhealthy, and it is expected that they will not eventually prove so to the troops. The endemic, as yet, has not been productive of much mortality.

DESTRUCTION OF A LUNATIC ASYLUM BY FIRE.—By telegraphic news received on the 4th ult., at Boston, it appears that a lunatic asylum had been destroyed by fire at Augusta, State of Maine, and several of the wretched inmates perished, it being impossible to rescue them. It is supposed that upwards of twenty thus perished. The hospital contained 125 inmates.

NEW PRIVATE LUNATIC ASYLUM.—We understand the Commissioners in Lunacy have granted a licence to Dr. Lightfoot to open a lunatic asylum, under the name of Arundel House, at Fulham. Their Fifth Annual Report, ordered to be printed 15th

August, 1850, has just appeared, which we shall notice more fully next week.

DISPENSARY FOR THE EYES, FROGMORE-STREET, BRISTOL.—The thirty-seventh annual Report of this charity is now before us, and affords a gratifying example of the good effects which flow from well-directed energy. The dispensary was originated in a single room, by Mr. Estlin, in 1812, and since that time 50,427 patients have been relieved. Of 50,000, the ratio was as follows:—males, 23,581; females, 26,419.

Under	5		10,886	30	to	40	6279	70	to	80	717
5	to	10	6981	40	to	50	4444	80	to	90	73
10	to	20	8121	50	to	60	2718	90	to	100	3
20	to	30	7981	60	to	70	1797				

Thus it would appear that the eye is most subject to disease during the first five years of life; next during the development of puberty, and that after forty there is a very sensible decrease. The immense proportion of infant patients, may, however, arise from the larger number of children than old persons assembled in a given spot. The proportion of children who die during the first year of existence is 1 in 5, and 1 in 3 are carried off before the completion of the fifth year. Thus it naturally follows that very young children abound at eye infirmaries as well as others in large towns. It would, however, be interesting to collect further statistics on these points, as it is by comparison that results are confirmed. We may add that Mr. Estlin and Mr. Augustin Prichard are the medical officers of this charity, and that the number of patients in 1849 was 2297.

CHOLERA IN THE WEST INDIES.—Dr. Hector Gavin has been dispatched by the Colonial Office to Barbadoes, to assist in the application of preventive measures against the spread of cholera. A better selection of a medical officer could not have been made.

EXPENSES INCURRED IN OPPOSING MEDICAL REFORM.—A few years since Colonel Reid bequeathed to the University of Edinburgh 60,000*l.* to found a chair of music, the surplus to be applied to advance the interests of the University. One hundred pounds of this surplus were voted by the senators to Dr. Christison, to defray his expenses to London, in order that he might oppose the last medical reform bill. The Town Council of Edinburgh, the patrons of the University, have lately charged the Senatus with misappropriation of this surplus, which is termed the Reid Fund. The case is being tried in one of the law courts of what its admirers term the modern Athens.

MR. HOOPER'S WATER-PILLOWS are at length rendered free from smell, and altogether unobjectionable. Our readers will find them very useful in bed-sores, particularly in cases where Arnott's bed cannot be obtained.

MR. BLACKWELL'S REGISTERED RAZOR-GUARD will be found very efficient in removing hair from parts previous to operation, without wounding the skin. It can be placed on either side of the razor, which can thus effectually be employed in either hand by the most inexperienced or unsteady shaver.

TO CORRESPONDENTS.

THE VALUE OF A HOMŒOPATHIC CORRESPONDENT.

[To the Editor of the Medical Times.]

SIR,—Your contributor, Mr. T. Mackern, M.R.C.S., Clapham Common, (Nov. 30th,) not having vouchsafed an answer to my query, (Dec. 14,) "from what College (and the date) he derives his title," I beg to send you a letter received from Mr. Belfour.

"College of Surgeons, December 26, 1850.

"Sir,—In reply to your inquiry, I have to acquaint you that Mr. T. Mackern is not a member of this College.

"I am Sir,

"Your most obedient servant,

"To ——————, Esq." "EDMUND BELFOUR.

I am now busy, but hereafter will, if you desire, hunt out a few more of these Hahnemannic rats, and you may administer an allopathic dose of Nux Vomica in this form. I am, &c.,

Nosehole. FERRET.

A Correspondent inquires whether an arrangement could not be made to prevent the Fellows of the Medico-Chirurgical Society being kept waiting so long before the street-door is opened; in the wet and foggy weather we have lately had, such an airing is decidedly inconvenient, and we agree with "F.R.S." that it should be obviated: we would draw the attention of Mr. Williams to the point.

G. B. T.—We are really unable to say positively whether the Committee of Selection of St. Mary's will send more candidates to the poll than are sufficient to fill the offices. These appointments have been so long in abeyance, and the candidates have been so long in suspense, that we trust the question will now be very soon settled.

T. S., Stonehouse.—The operations on the bears, attributed to Mr. Guthrie in the "Medical Gazette," were, in reality, performed by Mr. White Cooper. Mr. Guthrie would, no doubt, have corrected the mistake did he read the journal in question. The statement in the "Times" was extracted from our number for December 15th. We were at the gardens the other day, and saw the bears, who are going on well.

A Country Practitioner.—Gentlemen are entitled to their own opinions; but we think Dr. Marshall Hall rather over-rated the danger of chloroform, in his remarks at the Medico-Chirurgical Society. It is, however, a curious fact, that chloroform is a more deadly poison to the lower animals than to man—reversing the usual law. Were it not so, its use must have been attended with a frightful mortality ere this.

Approver, Edinburgh.—We shall be glad to receive a copy of the correspondence between Professor Syme and Dr. Macintosh.

Reform Bill of the National Institute.—We have received this Bill as amended by the Committee of the Institute. We shall notice it next week.

Dr. Crawford's letter has been referred to an eminent authority, who will probably write to him on the subject.

Mr. Baker, of Droxford, is thanked. The advertisement is unnoticeable.

Mr. Gulike is thanked; his papers have been received, and will appear in their turn.

OUR report of the proceedings of the Pathological Society must stand over till next week, Dr. Westmacott's drawing illustrative of Mr. Solly's case of cancer of the prostate gland not having been received from the engraver.

Hospital Reports.—The proof of the Report from the Seamen's Hospital, sent to Dr. Rooke, has not been returned.

Professor Lizars' Communication upon the perineal section, shall appear in our next Number,—with our comments upon the position this very angry controversy has assumed.

Dr. D'Alton's paper is in type, but unavoidably postponed.

Mr. Wardrop's Work.—We have printed 40 pp. of Mr. Wardrop's Work on the Heart—all that we can at present obtain from the Author, and these will be delivered to those of our Subscribers who may apply for them at the Printing Office, No. 5, Bolt-court, Fleet-street, from Saturday next, the 11th, till the end of the month. As soon as Mr. Wardrop enables us to do so, we will finish the Work, and give further notice.

COMMUNICATIONS have been received from—

Mr. CLARK, of Southampton; Dr. DAVIS, of Bath; Dr. ROOKE, of the Dreadnought Hospital Ship; Mr. BRANSBY COOPER, of Guy's Hospital; Mr. HOLMES COOTE, of St. Bartholomew's Hospital; Mr. DREW, of Wivelscombe; Mr. LORD, Hon. Sec. to Poor-law Medical Officer Convention; Mr. HERBERT WILLIAMS, Sec. *pro tem.* to National Institute; Dr. DRURY, of Camden-road Villas; Dr. EDWARD SMITH, of St. John's Wood-road; Mr. ANCELL, of Norfolk Crescent; Mr. CHALDECOTT, of St. Thomas's Hospital; Dr. SETH THOMPSON, of Seymour-street, Portman-square; Mr. ALFRED CARPENTER, of St. Thomas's Hospital; Professor LIZARS, of Edinburgh; Dr. MULLAR, of Edinburgh; Mr. HENRY SMITH, of Caroline-street, Bedford-square; Mr. GULIKE, of Rickwansworth; Dr. TURLEY, of Worcester; Professor FERGUSSON, of King's College Hospital; Dr. JENNER, of University College; Dr. KIDD, of Kingsland-crescent; Mr. PEARSON, of Stalybridge; "FERRET, of Nosehole," with enclosure from Mr. Belfour, Sec. of the Royal College of Surgeons; Dr. DUDGEON, of Gloucester-place, Portman-square; Dr. HUTCHINSON, of Milton-street; ESSE QUAM VIDERI; F.R.S.; G. R. T.; A COUNTRY PRACTITIONER; T.S., of Stonehouse; Mr. RUSSELL REYNOLDS, of Leeds; Mr. JONES, of Derby; Mr. HAWKER, of Edward-street; Mr. HARVEY HOLL, of St. George's Hospital; Mr. QUAIN, of University College; APPROVER, Edinburgh; Mr. JOHN B. SCRIVEN, of University College; Dr. ROSE CORMACK, of Putney; Mr. E. L. FALLOON, of Liverpool; A STUDENT.

THE following Publications have been received:—

Of the Crystalline Lens and Cataract. By Bernard Edward Brodhurst. Pp. 248. Churchill, London. 1850.

Additional Observations on the Nitrate of Silver; with full Directions for its Use as a Therapeutic Agent. By John Higginbottom, F.R.C.S.E. Pp. 40. Churchill, London. 1850.

Zeitschrift fur die Gesammte Medicin. Von F. W. Oppenheim. Besser, Hamburgh. 1850. Nos. 5, 6, 7, and 8.

The Surgeon's Vade Mecum. By Robert Druitt, F.R.C.S. Fifth Edition, much improved. Pp. 660. Renshaw and Churchill, London. 1851.

The Anatomist's Vade Mecum. By Erasmus Wilson, F.R.S. (Churchill's Manuals.) Fifth Edition. Churchill, London. 1851.

The Edinburgh University Calendar and Student's Guide. Pp. 72. Maclachan and Stewart, Edinburgh. 1851.

Pharmaceutical Journal. Edited by Jacob Bell. For December and January. Nos. VI. and VII.

Journal of the Statistical Society. For December. 1850.

Monthly Journal of Medical Science. For December and January. Nos. CXX. and CXXI.

Lectures on Clinical Medicine. By John H. Bennett, F.R.S.E., Professor in the University of Edinburgh. No. III. Sutherland and Knox, Edinburgh. 1850.

New York Journal of Medicine. For November. 1850. No. 3, New Series.

Health of London during Six Months, terminating Sept. 28, 1850. By John Webster, M.D., F.R.S. Reprint from London Journal of Medicine.

American Journal of Insanity. For July, 1850. Vol. VII. Nos. 1 and 2.

Introductory Address Delivered at the Opening of the Medical School, Surgeon's-hall, Edinburgh. By George Wilson, M.D., F.R.S.E. Sutherland and Knox, Edinburgh. 1850.

The British and Foreign Review. For January, 1851.

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ORIGINAL LECTURES.

CLINICAL LECTURES ON SURGERY,

AT

ST. BARTHOLOMEW'S HOSPITAL,

By W. LAWRENCE, F.R.S., etc.

Upon a former occasion, Gentlemen, I related some cases to illustrate the disease, called sero-cystic sarcoma, as it occurs in the mammary gland, explaining to you how the lactiferous tubes become tortuous, varicose, and eventually distended into cysts, the walls of which give origin to a soft, friable, and vascular growth, which first fills the cyst, then makes its way through the containing parts, and emerges as a red and bleeding fungus. In most instances which come before our notice, this morbid change affects a considerable portion of the glandular structure; the cases are comparatively few where we are called upon to deal with a single cyst. In the month of August, 1846, I was consulted by a young married lady, well made and in good health, on account of a firm yet somewhat elastic tumour, the size of a hen's egg, situated under a thick layer of adipose structure in the upper and outer part of the left breast. It was of ten months' duration, having been noticed during the period of suckling shortly after her first confinement as a small movable and painless knot. She had submitted the tumour to the examination of a surgeon of eminence, who punctured it with a grooved needle. Severe pain followed this proceeding, and when I first saw her she was suffering from want of rest and anxiety of mind. She readily assented to my recommendation that the tumour should be extirpated. No other treatment could possibly be of service in removing a morbid growth which was increasing in size and of doubtful character; although from its history, and from the feeling which it communicated to the fingers, as well as from the patient's age, I did not regard it as malignant. Chloric ether, an anæsthetic preferable to sulphuric ether, from its being less irritating to the trachea, having been administered, I made an incision through the integument and the subjacent fat over the most prominent part of the tumour, about three inches below but parallel with the clavicle, and exposed a cyst, loosely connected to the surrounding structures, with thin semi-transparent walls, and containing a straw-coloured substance of a consistence just beyond fluidity. I removed the cyst entirely, taking away, at its deepest part, a small portion of the mammary gland to which it was closely adherent. The edges of the wound were united by sutures; the patient recovered without a bad symptom, and up to the present time she has continued perfectly well. The cyst, which was carefully examined, was found to be extremely vascular, and lined by a layer of epithelium. The yellow substance which it contained consisted of epithelial cells, distended by oil granules. Taking into consideration the characters of the cyst and of its contents, as well as its intimate connexion with the mammary gland, we see reason for suspecting it to have been some part of the tubular structure of the gland in a dilated state.

On Saturday, Dec. 7, I removed from the mammary gland of a woman, aged 49, a tumour which proved, in many respects, similar to that which I have just described. It was about the size of a large walnut, circumscribed, and moveable, like a distinct growth, buried in the substance of the gland on one side of the nipple, extending through the whole thickness of the organ. It had existed less than a year, and had caused no pain. From its general characters we presumed it to be a chronic mammary tumour; but, upon cutting through the external coverings, nearly an inch in depth, it proved to be a cyst, intimately connected, at one part, as in the former case, with the glandular structure, of firm texture, with perfectly smooth and regular surface, closed on all sides, and containing a fluid which, escaping during the operation, unfortunately could not be collected for examination. Some smaller cysts were found connected with the deeper part of the larger one; they bore a close resemblance to the cysts formed by dilatations of the lactiferous tubes.

Had this tumour been situated nearer the integument, so that its nature could have been ascertained previous to the operation, we might, instead of dissecting it away, have laid it freely open with a scalpel, and placed a slip of dressing in the incision, in order to induce obliteration of the cyst by inflammation and granulation. The introduction of a grooved needle might have thrown light upon its character by allowing the escape of the fluid; but, as is well illustrated by the case first related, the practice of indiscriminately puncturing tumours is one not unattended by danger. Unpleasant consequences sometimes result from this proceeding, which, after all, may require to be followed by the usual operation; for the fluid speedily re-accumulates, and distends the cyst to its former size, the opening being so small, that it closes within a few hours. The puncture may also excite inflammation in the cyst, and the renewed distension by an inflammatory product may be attended with considerable pain, which the patient, experiencing it for the first time in the course of the disease, will probably attribute to the interference of the surgeon. Although, therefore, there are cases in which useful information is to be derived from the employment of the grooved needle, I do not recommend you to make exploratory punctures upon all occasions, with the belief that no unpleasant result can ensue. I have upon more than one occasion seen this proceeding rouse into activity a disease which from its commencement had never given pain, and thus delay for a considerable time the only effectual measure of relief, the removal of the morbid structure.

I will now proceed to relate to you some cases of cystic tumours, occurring either in the upper part of the neck near the angle of the jaw, or in the proximity of that vascular body known as the thyroid gland.

CYSTIC TUMOUR OVER THE BASE AND ANGLE OF THE INFERIOR MAXILLARY BONE,

CLOSELY CONNECTED TO THE GREAT VESSELS OF THE NECK —OPERATION—PARTIAL REMOVAL OF THE CYSTS—SUPPURATION OF THE REMAINING SURFACE—RECOVERY.

Case 1.—Joseph B., aged 28, a strongly built, active man, states that he has always enjoyed good health. About seven or eight years ago, he noticed by the side of the chin and below the jaw a small, moveable, painless knot, which appeared without any assignable cause, and has since gradually increased, rising over the jaw to the lower part of the face, and extending backwards towards the ear. Of late, its growth has been much more rapid; but the patient has suffered no inconvenience, except from its bulk, and he now desires its removal only on the ground of the considerable deformity caused by the size of the swelling.

Admitted June 14, 1850.—There is a soft, obscurely fluctuating, painless tumour, with ill-defined boundary, and closely adherent to the subjacent structures, situated on the left side of the face and neck, over the body of the inferior maxilla, extending backwards behind its ramus to the region of the parotid gland. It is covered by loose and healthy integument.

Chloroform having been administered, I made a puncture with a double-edged knife in that spot where fluctuation was most evident, and evacuated some ounces of watery fluid slightly tinged with blood, from a firm cyst with smooth surface. The bulk of the tumour being but little diminished, I freely divided the integuments by an incision in the line of the base of the lower jaw, and thus came to another cyst, also filled with watery fluid, placed behind the former. Deeper still there was a third and large cyst, containing a homogeneous yellow fluid, nearly resembling pus in colour and consistence. This last cyst extended forwards over the cornu of the os hyoides and the neighbouring part of the thyroid cartilage; it was spread over the great vessels below the angle of the jaw for a considerable extent; indeed, the pulsations of the carotid artery being visible in the bottom of the wound. Not deeming it necessary to continue the dissection deeper, I cut off the superficial portions of the

cysts, and left the more deeply-seated parts to inflame and suppurate.

July 5.—The wound has suppurated, and is now nearly healed. There has been no unfavourable symptom. The cicatrix is in great part concealed by the whisker, and there is no remaining enlargement in the neck.

July 8.—Discharged. The structure of the cysts was compact and firm; the internal surface, smooth and glistening, closely resembled that of a serous membrane. The walls of the cyst which contained the yellow purulent fluid were thick, the interior rough, granular, and of reddish hue; inflammation had evidently produced these changes.

ENCYSTED TUMOUR OF THE NECK ON THE LEFT SIDE OF THE LARYNX.

Case 2.—Henry M—, aged 35, a thin spare man, of healthy constitution, states, that six years ago one of his fellow-workmen directed his attention to a small knot on the left side of the throat, the existence of which he had not observed. It was firm, moveable, and about the size of a filbert, but it did not inconvenience him in any way. For about three years and a half it remained stationary; then it slowly increased. Having applied to the casualty department of the hospital, he was directed to present himself from time to time, that the disease might be watched; but circumstances prevented his attending. There was neither pain nor material enlargement for the next fifteen months, when, without apparent cause, it swelled, and severe pain, accompanied by throbbing, ensued. He then again came to the hospital, and was admitted July 20, 1850. Upon the left side of the larynx, under the thin and healthy integument of the neck, there is a firm yet elastic tumour the size of a large walnut, moveable under the fingers, and following the movements of the larynx. It can be raised along its outer border from the subjacent great vessels, but towards the upper edge of the thyroid cartilage it is lost in front of the larynx.

The patient being desirous that the tumour should be removed, chloroform was first administered. An incision made into it exposed a well-defined cyst, containing a pellucid fluid, similar in appearance to that of hydrocele. The outer portion of the cyst was removed, the wound was covered with wet lint, and the patient put to bed. There was some hæmorrhage from small vessels, but it stopped without the necessity of ligature. The wound granulated, and the patient recovered without an unfavourable symptom.

THICK AND VASCULAR CYST IN THE NECK CONNECTED WITH THE THYROID BODY; EXPOSURE OF THE CAVITY BY FREE INCISION; CURE.

Case 3.—A gentleman, twenty-four years of age, of sound constitution, who had always enjoyed excellent health, consulted me two years ago, on account of a swelling in the neck, which had caused no inconvenience, but was increasing in size. It had existed between three and four years. It was of oval form, more than two inches in length, about an inch in diameter, situated between the sterno-mastoideus, which partially covered it, and the larynx. It could be moved freely, both up and down, and laterally, and, when the muscle was relaxed, it could be almost lifted from the subjacent parts: in short, it had all the characters of a tumour lying over the great vessels, with its long axis parallel to their course. Being, however, found to follow all the movements of the larynx, it was concluded to be either a solid or cystic growth connected with the thyroid body. I operated, with the assistance of my colleague Mr. Stanley, making an incision along the front edge of the sterno-mastoideus. A dark-coloured vascular body was soon exposed and punctured, when about a table spoonful of a dark reddish brown fluid, rather thicker than water, escaped. A portion of the containing bag was then excised so as to expose the cavity. The sides were one or two lines in thickness, the surface irregular, with a somewhat spongy aspect, and dark from the degree of vascularity. It was necessary to tie several vessels, on account of free arterial hæmorrhage, both from the cut edges and the surface of the part, some difficulty being experienced from the ligatures cutting through. A slip of lint, spread with spermacetti, was placed between the edges of the wound, which discharged at first a dark fluid in abundance. The parts then inflamed and swelled considerably. Free suppuration ensued; the wound cicatrised firmly, and there has been no renewal of swelling or mischief in any shape.

You will remark, that in all the cases now related, the tumour was found either in the substance or in the immediate neighbourhood of some secreting or vascular body, in which tubes or cells form part of the natural structure. In case 1, a swelling was first noticed below the chin, and extended thence towards the angle of the jaw in the line of the salivary glands. In case 2, the cyst was connected with the thyroid body, which we now know to be composed of an assemblage of small cells or cavities filled by a peculiar epithelium; and in both instances of cysts in the mammary gland, some portion of the glandular structure was so completely involved in the disease, that it was necessarily removed in the operations. Thus we find reasons for believing that, in many cases at least the morbid change consists, not in the development of an entirely new cyst, but in the dilatation or enlargement of some normal tube or cell. This point has been clearly established in certain sero-cystic tumours of the mammary gland; and you will remember that I exhibited a specimen upon a former occasion, in which dilatation of the lactiferous tubes is clearly demonstrated. This explanation, I am aware, will not apply to all instances of cysts in the glands of the breast. The region of the chin is not a common situation for the formation of cysts; they occur more frequently about the angle of the jaw or the parotid gland, in the substance of which they may be imbedded. Their development from the deeper structures is generally manifested by the relation they bear to the branches of the portio-dura, which, in their course through the gland, lie over the tumour, and consequently will probably be divided in the operation undertaken for its extirpation.

Some years ago I removed from the mouth of a young lady a tumour, which had formed slowly without pain, having attained such magnitude as to cause a considerable fulness of unpleasant appearance behind the symphysis of the lower jaw, but without any change in the external coverings. It presented in the floor of the mouth, under the tongue, as an opaque, whitish, and tolerably firm body, covered by the mucous membrane in an unaltered state. Pressure on the external fulness caused a considerable and inconvenient projection into the mouth. Having cut through the mucous membrane, I found a body too large to admit of removal through the incision. Suspecting it to be a cyst, I punctured it, and found it to be a thin but tolerably firm bag, filled with a substance closely resembling putty in colour and consistence. Having removed some of this, so as to lessen the bulk of the mass, I removed it with ease, the cyst being so loosely connected to the surrounding areolar tissue that it yielded to traction with the forceps, and did not require the use of the knife. The cyst was the size of a walnut, of globular form: it is preserved in the museum of St. Bartholomew's. The complete insulation of this cyst by the loose surrounding tissue shows that its formation could not be explained by a change in either of the neighbouring principal ducts. May it not have been a dilatation of the excretory tube of some smaller gland?

The formation of cysts in the neck, immediately connected with, or closely adjacent to, the thyroid body, has been long well known. They may attain considerable magnitude, if left to their natural progress. They generally have a smooth surface, like that of a serous membrane, and contain a fluid of watery consistence, from which the French have called the disease hydrocele of the neck. That such formations may present very different characters is shown by Case 1.

The treatment exemplified in Cases 2 and 3 may be safely and effectually adopted in these formations, as well as in serous cysts generally. The external coverings are divided by an incision over the middle of the swelling, and turned aside sufficiently to expose the part. The contents having been evacuated by a puncture, the prominent portion of the cyst may be excised, if it can be done safely. There may be free bleeding, especially from the vascular growths, where blood may ooze from the exposed surface of the gland generally, and, from the brittleness of the structure, is not easily controlled by ligature. I have not seen any instance of dangerous hæmorrhage. A slip of dressing placed between the edges of the wound insures the occurrence of suppuration and granulation, so that the practice of filling the cavity with lint, which excites serious inflammation, is unnecessary.

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CLINICAL LECTURES ON MEDICINE,

AT

KING'S COLLEGE HOSPITAL.

By GEORGE BUDD, M.D., F.R.S.,

Fellow of the College of Physicians, and Professor of Medicine in King's College.

PLEURISY—RESULTS OF TAPPING.

Gentlemen,—Since I last addressed you in this place, the operation of tapping the chest has been performed, for the second time, on James Gibson, who has been more than four months in the hospital under my care. The case is interesting on many accounts; and I shall, therefore, make it the subject of my remarks to-day.

Gibson is a baker, 21 years of age, and has always lived in London. His father suffers from occasional attacks of spasmodic asthma, but the rest of his family are healthy. He is rather short, but is well-formed, and has a tolerably capacious chest. Three years ago he had a severe attack of typhus fever, but, with this exception, he enjoyed good health till the middle of last June, when his present illness commenced with occasional sharp pain in the right side of the chest, a short dry cough, and great difficulty of breathing, when he made any exertion, or attempted to lie down. In spite of these ailments, he continued his work. The pain, which was felt chiefly on laughing or coughing, continued; the cough became more troublesome; his appetite failed; he lost flesh and strength rapidly; and at the end of a fortnight was obliged to give up his situation.

Even now he did not take to his bed, but, according to his own account, his appetite completely failed, he was very thirsty, and the difficulty of breathing increased so much that he was afraid to walk out, because he was unable, from shortness of breath, to move out of the way of obstacles in the street. Three weeks after he left his situation he applied to the hospital as an out-patient, and on the 1st of August he was admitted into Fisk Ward under my care.

At that time the right side of the chest was completely filled with liquid. There was much constitutional disturbance; the pulse being 126 in the minute; and the breathing was greatly oppressed. The left lung seemed to be perfectly sound; there was no evidence of disease elsewhere, and nothing in his history to lead to the inference that there were any tubercles in the lungs.

The illness seemed to be simple pleurisy, which, *from having been neglected*, had led to an enormous effusion of fluid. The symptoms at the outset were not severe enough to lead to the supposition that this fluid was pus. There had been no shivering, and for a fortnight after the commencement of his illness Gibson continued his work. Almost up to his admission to the hospital he continued to move about.

There was, therefore, every reason to believe that the illness was simple pleurisy, and that the right side of the chest was filled with a *serous* liquid.

In such cases, practitioners are generally very averse to tapping the chest, because the operation has often excited fresh inflammation of the pleura, leading to the formation of pus; so that while it has had the immediate effect of relieving the breath, by giving issue to some of the liquid, it has set up fresh constitutional disturbance, and rendered the liquid within the chest purulent instead of serous.

Now, such a change in the character of the liquid is, I need hardly tell you, very calamitous to the patient. A serous liquid may take a very long time to become absorbed, but it almost always does get absorbed in the end; and the patient recovers with contraction, sometimes with very great contraction, of that side of the chest.

When the liquid is pus, it never becomes absorbed; nor does it ever undergo any diminution in quantity till it works a passage for itself through the side of the chest or through the lung. When this event happens, the pus does not all escape at once, because the side of the chest cannot contract, or the lung expand, to occupy its place. Generally, only a small portion escapes at a time; and this is replaced, at least in part, by the secretion of fresh matter. A great quantity may issue from the chest, and still the quantity within the chest diminish but slowly, and the patient is at length exhausted by the drain, and by the constitutional disturbance that attends the continual formation of fresh matter. In this way a large collection of pus in the sac of the pleura generally proves fatal.

The operation of tapping, then, though it may relieve the patient for a time, may ultimately cause his death; and practitioners wisely refrain from it in ordinary cases of pleurisy.

Cases, however, now and then occur in which a large collection of fluid in the chest so hinders the breathing, that it is expedient to run this risk to avert the more immediate danger of suffocation. This happens most commonly in pleurisy of the left side, for in that case the liquid not only compresses the lung, but further embarrasses the breathing by displacing the heart.

In Gibson, the pleurisy was on the right side, but that side was *distended* with the liquid, and the breathing was so much oppressed, that I thought it right to draw off some of the liquid.

It is the general opinion, that the suppurative inflammation which occasionally follows the operation of tapping, results from the admission of air, and the consequent decomposition of the liquid already within the chest. Now, when we tap a chest *distended* with liquid, like that of our patient Gibson, no air enters for some time. When the opening is first made, the chest contracts, and the lung expands, and the liquid is forced continuously through the canula in a strong jet. The jet gradually becomes less powerful, and at length, when the chest has contracted and the lung has expanded almost as much as they can speedily do, the jet ceases to be continuous. The liquid is then forced out during expiration only, and air is drawn in during inspiration.

I determined, therefore, in Gibson, to prevent the admission of air into the chest by having the chest tapped by a very small trochar, and by withdrawing the canula before the stream had ceased to be continuous.

The operation was performed by Mr. Partridge on the 2nd of August, the day after Gibson entered the hospital.

The liquid, which was *serous*, issued at first in a forcible jet. The jet gradually diminished in force as the liquid flowed; and, when a pint and a-half of the liquid had escaped, the jet reached little beyond the end of the canula. Fearing that a forcible inspiration might now suck air into the chest, through the canula, I desired Mr. Partridge to withdraw the canula, and to close the wound.

The operation was not followed by any fresh pain, except a smarting and pricking in the place of the wound, which lasted a few days; or by any fresh constitutional disturbance that could lead to the inference that any fresh inflammation of the pleura had been set up.

On the contrary. Gibson felt greatly relieved, and both the pulse and the breathing became immediately less frequent and continued so.

The object I had in view was therefore attained; the urgency of the symptoms was removed; but the right side of the chest was still full of liquid. No breath-sounds could be heard anywhere on that side.

Gibson was now treated by frequent blistering, and by salines and diuretics, with the view of promoting the absorption of the liquid.

More than three months, however, passed away, and there was little further change in his condition. The right side of the chest continued full of liquid, and no breath-sounds could be heard there, except towards the close of this period, when a distant tubular breathing became audible in the upper part of the chest.

The right side of the chest was often carefully measured, but no sensible diminution in its girth was detected.

During all this time Gibson was pallid, and looked ill; had a frequent short dry cough, with feverishness and a slight oppression in breathing, and complained occasionally of pain and soreness in the right side of the chest.

Towards the latter end of November, the symptoms became more severe. He had more fever and complained of more pain in the side, and of greater difficulty in breathing. I began to fear that, after all, the operation of tapping might have set up suppurative inflammation within the chest; or that from some other cause the liquid within the chest might have become purulent.

In the beginning of December, four months after the operation, there was still no amendment, and Gibson was suffering a good deal, and was much depressed in spirits.

I then determined to have the chest tapped again, thinking that if the fluid should be pus no harm would be done, and that if it should still be serous, some of it might be drawn off as before, and the breathing relieved, without allowing any air to enter the chest through the opening.

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In the absence of Mr. Partridge, the operation was performed, as you know, by Mr. Bowman, on the 2nd.

I requested Mr. Bowman, after tapping the chest with a trochar and canula, to put in practice a method that was employed on a patient of mine in the hospital last year,—namely, to pass a gum-elastic catheter into the chest through the canula, and then to withdraw the canula over it, leaving the catheter in its place.

The liquid would then flow through the catheter into the vessel held to receive it, and, if the end of the catheter were immersed in the liquid received in this vessel, no air could possibly enter the chest; for it is clear, that any suction backwards during inspiration, instead of drawing air through the catheter into the chest, would only draw into it some of the liquid which had just issued.

This was done, and 56 ounces of liquid was drawn off, which, I was happy to find, was *serous*, and of specific gravity 1020.

When this quantity had issued, the liquid almost ceased to rise in the vessel, and Gibson complained so much of pain in the side, produced probably by the catheter touching the lung, that it was thought right to withdraw the catheter and to close the wound. During the operation, and for some time afterwards, Gibson was made to lean rather towards the right side, that no blood might flow from the wound into the chest.

He was greatly relieved by the operation; slept well during the following night; and the next day breathed without difficulty, and had much less cough, and was less feverish, than before.

On examination of the chest, a rubbing sound was now heard, on the right side, from the clavicle almost to the mamma; and over this space, and on the upper part of the chest behind, a strong vibration was felt by the hand when Gibson spoke. No distinct vocal vibration could be felt on any part of the right side of the chest in front before the operation.

It was clear, that by the withdrawal of so much liquid, the lung had been brought into contact with the wall of the chest in all its upper part, but that there was still a large quantity of liquid in the chest below the level of the mammæ.

Gibson has had little pain in the chest since the operation, and no symptom indicating any fresh inflammation.

There is every reason, therefore, to believe that this operation, like the former, has fulfilled its object, and lessened the quantity of liquid in the chest, and relieved the breathing, without doing any ulterior mischief.

The degree of relief may be measured by the diminution in the frequency of the pulse and the breathing.

Before the operation, the following notes of the pulse and the breathing were taken:—

Nov.	18,	pulse 104,	inspirations	28	a minute.
	20,	„ 96,	„	28	„
	25,	„ 92,	„	32	„
	27,	„ 100,	„	28	„
	29,	„ 104,	„	28	„
Dec.	2,	„ 104,	„	28	„

So that, during the fortnight embraced in these observations, the pulse averaged 100, and the inspirations kept steadily at 28 in the minute.

Since the operation, the following notes have been taken:—

Dec.	3,	pulse 88,	inspirations	24	a minute.
	4,	„ 96,	„	24	„
	5,	„ 88,	„	22	„

Taking the average of the last three observations before the operation and of the first three after it, it would appear that the operation has had the effect of rendering the pulse less frequent by 12, and the inspirations less frequent by 4, in the minute.

This may seem hardly sufficient to explain the great relief which Gibson tells us he has experienced; but you must consider that 12 beats a minute make 17,280 in 24 hours, and 4 in the minute make 5760 in 24 hours.

So that since the operation, Gibson has drawn breath 5,760 times less in twenty-four hours; and his heart has beat 17,280 times less in twenty-four hours than before; which is a considerable diminution of daily labour.

I will not speculate on the probable course of the case in future further than to state, that there seems every reason to believe that the liquid left in the chest will become slowly absorbed, and that Gibson will eventually recover, with considerable contraction of the right side of the chest.

I have thought it right to call your attention to this subject to-day, but trust that the good effects which you have witnessed from the operation performed under peculiar circumstances, will never lead you to resort to it without due consideration of the serious risks that attend it, or without precautions like those that have been successfully adopted in the case of Gibson.

ORIGINAL COMMUNICATIONS.

TYPHUS FEVER, TYPHOID FEVER, RELAPSING FEVER, AND FEBRICULA,

THE DISEASES COMMONLY CONFOUNDED UNDER THE TERM CONTINUED FEVER.

ILLUSTRATED BY CASES COLLECTED AT THE BED-SIDE.

By Wm. JENNER, M.D. Londin.,

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(Continued from last Volume, page 647.)

SEVENTEENTH PAPER.

RELAPSING FEVER.—*Continued.*

BLOOD DRAWN FROM A VEIN IN RELAPSING FEVER IS SOMETIMES BUFFED.

In his book on the relapsing fever epidemic in Edinburgh, 1817-19, Dr. Welsh states that the blood which he took in such plentiful streams from his patients was buffed. He argues that this condition of the blood proves the propriety of the use of the lancet: *à priori* argument, however, is worth but little in therapeutics. Cruveilhier found, in the bodies of women who died of puerperal fever during an epidemic of that disease, which occurred in Paris some years since, unequivocal signs, as he thought, of pre-existing inflammation. He used the lancet, reasoning *à priori* that it must be useful: the mortality under the treatment he adopted was fearful. Experience alone is a sound basis for therapeutics. "*Ars medica tota est in observationibus*,"—hackneyed as is the phrase of Baglivi, its spirit has yet to be thoroughly incorporated into the members of our profession.

The following record illustrates the fact that, in the cases I have seen, when blood was drawn it was, as in the same disease in 1817-19, buffed.

Case 49.—In a man, aged 35—headache—pain in the limbs—hurried breathing—quick pulse—hot skin—buffed blood—*convalescent on the 9th day of disease.*

Relapse on the 17th day.—Rapid pulse—hot skin—white tongue—vomiting—delirium—want of sleep—profuse perspiration—*convalescence on the 22nd day of disease.*

Robert M., aged 35, a railway labourer, was admitted under the care of Dr. Tweedie, into the London Fever Hospital, July 22nd, 1847.

He was taken ill without known cause, July 19th, with headache, and pain in the limbs, unaccompanied by any derangement of the bowels.

On the day after admission, my friend Mr. Sankey noted:—He slept but little last night—headache—mind clear—respiration hurried—some cough—pulse 90—tongue coated—skin free from spots; hot. V S. ad. ℥x.

On the 24th July *i.e.*, *6th day of disease*, blood thinly buffed—not cupped—clot large and soft—headache nearly gone—tongue coated—no stool—pulse 90.

On the 8th day the pulse had fallen to 84, and there was considerable pain in the limbs.

On the 9th day the appetite returned; the pulse being still 84.

He was considered convalescent, and no report taken till the

17th day of illness, on which, and subsequent days, I noted:—Was seized with rigors last night—pulse 120—skin hot and dry—tongue white, moist—three stools—complains of nausea.

18th day.—Pulse 120—skin hot and dry—no sleep last night—tongue white, moist—has vomited this morning.

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19th day.—A little delirium—scarcely any sleep—vomiting continues—two stools—pulse 120.

20th day.—In all respects as yesterday.

Afternoon of 21st day.—Has been perspiring profusely since 10 a.m.—skin cool—pulse 80, soft—tongue cleaner—two stools—no return of vomiting.

22nd day of disease.—Pulse 80—skin sweating—tongue clean—no stools—a little epistaxis this morning—complains of pains in the limbs.

No note was taken after the 22nd day of disease.

This man derived no marked benefit from the blood-letting, practised on the 5th day of disease. It is true that, on the day after, the headache was less severe; but the reader will have perceived that nature, unaided by the loss of blood, in many cases effected a much larger improvement in a much shorter space of time. Pain in the limbs is often complained of by patients, after the febrile symptoms (commonly so called) has disappeared. In this case, the pain followed both the primary attack and the relapse. On the ninth day Robert M. was considered to be convalescent. No critical discharge appears by my notes to have marked the termination of the primary attack. The relapse set in, as it usually does, suddenly. The febrile symptoms were very severe. The copious sweating on the 21st day was evidently critical. It occurred, so far as concerns the whole illness, on a non-critical day; so far as concerns the relapse, on a critical day; but then, 3, 4, 5, 6, and 7 are all critical days, so that, if a disease terminate in less than a week, it must terminate on a critical day.(a) Although the sweating was very profuse, yet a second critical discharge, epistaxis, occurred on the 22nd day of disease, the 6th of relapse.

The catamenial discharge is sometimes critical. I have before stated the fact. The following cases illustrate it.

Case 50.—In a woman aged 19 years. Rigors—heat of skin—head ache—vomiting—furred tongue—loss of appetite—quick pulse—perspiration—catamenial discharge—convalescent on the *7th day of disease. Relapse on the 13th day of disease.* Rapid pulse—headache—hot skin—vomiting—profuse sweating—*convalescence on the 16th day*, with pain in the limbs.

Mary H., aged 19, a domestic servant, was admitted into the London Fever Hospital Sept. 9, 1847, under the care of Dr. Tweedie.

On Saturday, Sept. 7th, she was seized with rigors, succeeded by heat of skin, headache, and vomiting.

On the 4th day of disease, no headache; no pain in the limbs; sleeps well. Tongue furred; one stool; no tenderness of abdomen; no appetite; some thirst.

Pulse 92; trifling cough.

Skin warm; perspiring.

5th day.—Pulse 96; a little frontal headache; tongue slightly furred; three stools; catamenia have appeared.

No note was made on the 6th. *On the 7th day she appeared well;* her pulse was only 66, and she had some appetite; but on the 13th day of disease, pulse 120; no sleep; some frontal headache; tongue moist, furred; nausea; vomited to-day much greenish yellow fluid; no appetite; two stools; some tenderness at the epigastrium; skin warm, dry; no spots.

14th day of disease.—Pulse 130; no sleep; headache continues; skin hot, dry; tongue as yesterday; two stools; nausea; vomiting of greenish yellow fluid continued, about 12oz. have been ejected to-day. No tenderness at the epigastrium. Arrowroot with brandy; mustard poultice to the epigastrium.

15th day of disease.—Pulse 96: perspired profusely after the arrowroot and brandy; slept well; no headache; tongue cleaner; no nausea; no vomiting.

16th day.—Pulse 96; skin cool; complains of pain in the limbs. Tongue clean; no stool.

No further report was considered necessary; the woman was convalescent, and left the hospital in a few days.

It may be observed, that in this case the perspiration did not afford any marked relief. It was not till after the menstrual evacuation, on the 5th day of disease, that the patient was convalescent. As is usual, the relapse took place suddenly. The patient was seemingly in health on the 12th day; on the 13th, her pulse was 120; on the 14th, 130. This extreme rapidity of the pulse, as Dr. Henderson pointed out, is never observed so early in typhus fever without indicating extreme danger, while it by no means indicates danger in relapsing fever. Vomiting of green fluid is a very common symptom in relapsing fever; it was present, to a comparatively trifling extent, during relapse in this case. The profuse sweating with which the relapse terminated occurred on a non-critical day, *i. e.*, the 15th day of disease. Pain in the limbs troubled the patient after the termination of the severe febrile symptoms which marked the relapse. Whether the pains are rheumatic or neuralgic in their character has been a question. I am inclined to regard them as neuralgic, or analogous to the pain in the back in small-pox. Certainly, I see no reason to believe them to be rheumatic.

Case 51.—In a woman aged 45—pains in the back and limbs—rigors—vomiting—head-ache—vertigo—white tongue—quick pulse—slight sonorous râle—hot skin—catamenial discharge—*convalescence on the 7th day of disease—relapse on 19th day of disease*—rigors—rapid pulse—hot skin—frontal headache—white tongue—slight sore throat—*convalescence on the 23rd day of disease.*

Sarah R., aged 45, was admitted into the London Fever Hospital under the care of Dr. Tweedie, December 9, 1847. She had enjoyed health till the present attack. On Wednesday, December 8th, she was suddenly seized with pains in the back and limbs, rigors, vomiting of bitter yellow fluid, headache, and vertigo. Her bowels were regular. She was suckling at the time her illness began. Three months before her present illness began, she left Sheffield, and "tramped" to London, sleeping in Union houses. She affirmed that she was of sober habits.

3rd day of disease.—Complains much of general headache; great pain in the back and limbs; vertigo in the erect position; intellect unaffected; expression natural; face flushed.

Is unable to walk more than a few steps in consequence of vertigo.

Tongue moist, white; much thirst; no appetite; one stool; some nausea; abdomen full, resonant, not tender.

Pulse 100; a little cough, trifling amount of sonorous râle on deep inspiration; skin warm, dry, free from spots.

Applic. c. c. temp. et detrah. sang. ad ℥viij.

4th day of disease.—Pulse 120; skin hot and dry; much less headache; less vertigo; no flush; little sleep. Tongue as yesterday; a little nausea; 1 stool, confined. Ol. ricini, ℥ss., st. s.; hyd. c. cretâ, gr. ij., 6tâ quâque horâ.

6th day of disease, had but little sleep last night; is now asleep. Hyd. c. cretâ, gr. ij., nocte maneque s.

7th day of disease.—Pulse 84, weak; skin cool; no headache; dozed during night, moaning much in her sleep. Complains of feeling extremely weak. Catamenia appeared last night. Tongue moist, furred; two stools, one of which was passed into the bed, apparently unconsciously. Vin. alb., ℥vj.

8th day of disease.—Pulse 76, stronger; skin cool; slept well last night, less moaning in her sleep; expression improved; tongue moist, nearly clean; three stools in close-pan. Catamenia continue.

On the 9th day there was a little appetite.

On the 11th day.—Pulse 70. Sits up in bed unassisted. Tongue moist, clean; appetite good; one stool.

On the 13th day I noted that her pulse was still 70; that her tongue continued clean; and that she gained strength daily.

On the morning of the 19th day she was attacked with severe rigors, which continued for an hour. At the time of my visit, I noted pulse 120; skin hot. Complains of frontal headache; face flushed. Tongue white, moist; no nausea; no tenderness at epigastrium; one stool last night; no appetite. Hyd. c. cretâ, gr. iv., st. s. Haust. ap., horas duas post pil. s.

20th day.—Pulse 120; skin hot; little sleep; no return of rigors; less headache; face flushed; tongue as yesterday; complains of some sore throat; three stools.

21st day.—Pulse 110; tongue the same; three stools.

22nd day.—Pulse 90; tongue white, moist. Complains of sore throat and pain in deglutition; slight redness of tonsils; one stool.

23rd day of disease.—Pulse 72; slept well; tongue cleaner; very trifling sore throat; one stool; appetite returning.

The exact date at which the fever left this woman can scarcely be fixed. The pulse was 120 on the 4th day; no note was made on the 5th day; on the 6th day she was asleep at the time of my visit; on the evening of that day the catamenial discharge occurred; and when I saw her on

(a) See *British and Foreign Review*, April, 1844, for some able remarks on the doctrine of critical days.

the 7th day her pulse had fallen to 84, and the skin was cool; yet she complained of great sense of weakness, and passed stools into the bed. It appears probable that the latter was the consequence of the woman's sense of weakness making her prefer to lie quiet. Persons in the class of life of Sarah R., a common tramp, are often very dirty in their habits. Had this case been a solitary example of the disease I am considering, the primary attack might have been held to be simple catarrh; the second, tonsilitis. The chest and throat symptoms appear to me, however, to have been secondary to the general disease. In the first attack, the headache was so severe that local bloodletting was considered necessary; while the chest symptoms were so trifling that no remedy was administered for their relief; and, with reference to the sore throat, that was evidently greater on the 22nd day, when the pulse was only 90, than it was on the 20th, when the pulse was 120.

PREGNANT WOMEN, AS A RULE, ABORT WHEN AFFECTED WITH RELAPSING FEVER.—DIARRHŒA SOMETIMES CRITICAL.

Case 52.—In a woman, aged 25 years—headache—pain in the limbs—rigors—heat of skin—bowels regular—abortion on the 6th day of disease—frequent pulse—hot and dry skin—dry, brown tongue—marked prostration—*convalescence on the 9th day of disease—relapse on the 16th day*—frequent pulse—hot and dry skin—furred tongue—diarrhœa on the 18th day—*permanent convalescence on the 19th day.*

Ellen D., aged 25, was admitted into the London Fever Hospital July 28th, 1847. She was taken ill July 24th, with headache, pain in the limbs and loins, rigors, succeeded by heat of skin; her bowels at the time were regular. Persons in the same house had suffered from "fever."

On the 6th day of disease, slept badly, and at 8 a.m. was delivered of a male child. About 12 a.m., headache; mind natural; tongue coated; bowels open; thirst; little cough; no pain in the chest; pulse 120; skin hot and dry; no spots. Simple saline mixture every four hours.

7th day.—Pulse 120; tongue dry and brown; three stools; skin hot.

8th day.—Pulse 120; appears very prostrate; tongue coated; two stools; skin hot.

9th day.—Pulse 72, soft; skin cool, moist; slightly yellow; very little prostration; tongue moist, slightly furred; three stools.

On the following day the woman appeared in all particulars well, and continued so till

The 16th day, pulse 130; skin hot and dry; little sleep last night; tongue moist, slightly furred; three stools. Simple saline mixture every four hours.

17th day.—Pulse 120; skin very hot; tongue moist; two stools.

18th day.—Pulse 120; skin hot; tongue dry and furred; seven stools.

19th day.—Pulse 80. Convalescent.

In this case abortion occurred on the 6th day; the crisis on the 9th day; the relapse on the 16th day; critical diarrhœa on the 18th day. The sudden fall in the pulse from 120, its rate on the 8th day, to 72 on the 9th day, and then its sudden rise again on the 16th day to 130, and as sudden fall on the 19th day to 80, is well worthy of note. In relapsing fever, as I before remarked, the degree of rapidity of the pulse is no indication of the amount of danger. This case illustrates the fact, that relapsing fever sometimes suddenly terminates with diarrhœa. Jaundice, trifling in amount, was observed for the first time on the day the primary attack ceased. In some cases pregnant women do not miscarry until the relapse. Death now and then occurs when women miscarry in this affection.

STAGE OF RELAPSE OCCASIONALLY ABSENT.

Although relapse is the peculiar, it is by no means an invariable symptom of the fever under consideration. The following case is a good illustration of the fact:—

Case 53.—In a man aged 24 years—rigors—extreme vertigo—sense of weakness—sleeplessness—violent delirium—*herpes labialis*—furred and dried tongue—redness of *velum*—quick pulse—jaundice—convalescence on from the 10th to the 12th day—*No relapse.*

William D., aged 24, dark skin and hair, strong made, moderately stout, a dealer in iron, brother to John D., Case 43, and to Peter D., Case 44, was admitted into the London Fever Hospital, Nov. 8, 1849. On Tuesday morning, Nov. 5, just before leaving his bed, he was seized with rigors, followed by heat and sweating. He subsequently got up and went to work, but about 11 a.m. he fell ill and the rigors returned; he tried again to work, but at 1½ was so cold and ill that he lay down on the boards before a large fire, and after an hour or two he became warm, and there was no return of the rigors. By 3 p.m. he was unable to walk a very short distance without the aid of two men, and then, as he described it, "he staggered like a drunken man," from extreme giddiness and weakness. He took to his bed the same afternoon, and then had a dose of aperient medicine, which acted powerfully; the purging continued till his entrance into the hospital. He suffered much from frontal headache; "could scarcely open his eyes;" no epistaxis; no vomiting.

William D. was a man of very intemperate habits. He drank indiscriminately beer, gin, or rum; as he expressed himself, "nothing came amiss." He ordinarily swallowed a gallon of porter during the day.

The first night he was in the hospital, he slept a little, and at that time was free from delirium.

On the 10th of November, *i.e.*, the *6th day of disease*, I noted:—Has had no sleep since yesterday. Was very noisy last night; left his bed several times, and struggled with the nurse. Is still occasionally delirious; fancies his relatives were in the ward a few minutes since; yet he remembers past events accurately. Expression lively. A little frontal headache; no flush; complexion thick; conjunctiva slightly injected, pupils natural; special senses normal. Leaves his bed without aid; but staggers when out of bed. Says he feels very weak. Complains much of vertigo.

A little herpetic eruption at the angles of the mouth, and on the upper lip. Tongue dry and furred; very red at the tip; yesterday had pain in deglutition, none to day; velum, pend., palat., and uvula are deep dull red, and very dry.

Six stools the last 24 hours. No tenderness; abnormal fulness or resonance of abdomen; no vomiting; no appetite; much thirst; pulse 100; no cough; breath and heart sounds normal.

Skin warm, dry; no rose spots; no mulbery rash. It has a somewhat mottled aspect.

Head to be shaved. Chalk mixture 1 oz., with tincture of opium, ten drops, after every liquid stool. Simple saline mixture every six hours. Soon after the visit, he slept for about ten minutes. Toward evening he became very delirious, and during the night was extremely violent. He ran about the ward, and once even escaped into the courtyard. He then broke the window of the room in which he was placed. The hospital porter had to sit by his bed the whole night.

About 6 oz. of beer and 70 drops of laudanum were given him during the night, and early the next morning, 1½oz. of gin and three-eighths of a grain of acetate of morphia.

At noon on the following, *i.e.*, the *7th day of disease*, he was lying quietly sleeping. He had passed no stool; his urine was dark and very turbid. There was a slight but decided yellow tint of the whole skin. In about half an hour he awoke. His pulse was then 108, weak. There was constant delirium; he fancied he had been in the hospital 5½ days. The pupils were rather small; the conjunctivæ slightly injected. There was no trace on the skin of spots of any kind. Gin 4oz., calomel and opium of each a grain, every six hours, and a blister to the forehead. He refused the pill; and ¼gr. of acetate of morphia, dissolved in the gin, was substituted for it.

8th day.—He slept last night from 11½ p.m. till 2½ a.m. He was delirious before and after sleeping; at times, however, he appears very sensible; yet he thinks everything offered him to drink is poison. Is now, 1 p.m., lying quietly on his left side asleep; has passed two dark, watery stools; urine very high coloured, loaded with bile; it contains no albumen. Skin deep yellow; has a bronzed hue.(a) No perspiration since admission.

Acetate of morph. gr. ¼, every eight hours; mustard poultice to the region of the liver; a scruple of strong mercurial ointment to be rubbed into the axilla night and morning.

9th day.—Was delirious all yesterday afternoon. About 6 p.m. he began to sweat, and perspired profusely for about 2½ hours; slept well all night, and a good deal to-day.

(a) Dr. Cormack pointed out this tint as frequently observed in relapsing fever.

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There has been little if any delirium since yesterday afternoon.

Pulse 76; expression improved; skin and conjunctivæ very yellow; tongue dry, rough, yellowish, furred, very red tip and edges; two watery stools; herpetic eruption on lip, has formed a dry scab; sits up in bed with tolerable facility; surface of normal temperature. Has had 1 oz. of gin and half a pint of porter during the last twenty-four hours.

Omit the morphia; continue the mercury; porter half a pint.

On the 10th day the pulse was only 72; the skin was of a less deep yellow bronze hue. He was not awake for more than an hour the whole day.

From this time he improved daily. On the 12th day the somnolence had disappeared, the yellowness of skin much less marked. On the 15th day he felt quite well. The jaundice had all but gone, his tongue was clean, and his appetite was good. There was no relapse.

The two brothers of Wm. D. had relapsing fever. Both had distinct relapse; their cases (Nos. 43 and 44) were detailed in the 15th paper. Wm. D. had been exposed to the same cause as his brothers,—the illness of James D. commenced on the same day. In Wm. D., however, there was no relapse; the first attack was very severe; it was accompanied by jaundice. The suddenness of the outset of the disease, and the effect it at once exercised on the system at large is remarkable. In a few hours he required the aid of two men to assist him to reach his home, and he staggered like a drunken man. The little herpetic eruption about the lip was not critical in his case. It was the ninth day before he was convalescent. The jaundice setting in, as it did, just before convalescence, is an important feature. If a case of this kind prove fatal, the bile is found after death to pass readily into the intestine. The violence of the delirium was singular. The patient, eluding the vigilance of the nurse, nearly escaped. He made his way, in his shirt only, into the courtyard of the hospital. The profuse sweat with which the disease terminated occurred on the 9th day, *i. e.*, on a critical day.

Perhaps a better name than relapsing fever might have been framed to signify the disease here described, but I preferred adopting one already used by others who have given a faithful account of the disease in question. Moreover, the name expresses the feature, which, although not constant, is yet, *when present*, the most distinctive of the disease, especially as marking the difference between it and typhus fever, typhoid fever, and febricula.

The question has been raised, as to the identity of relapsing and yellow fever. Dr. Cormack is the chief advocate of the supposed identity. The data for determining the problem appear to me to be wanting; for what are the symptoms of yellow fever? If we hold, with Sir William Pym, that there are several diseases confounded under the term yellow fever, with which is it that relapsing fever is to be considered identical?

The repetition of the rigors daily for two or three days in succession appears to approximate certain cases to intermittent fever.

A SECOND RELAPSE OCCURS IN SOME CASES.

Case 54.—In a woman aged 45 years—rigors—headache—vertigo—vomiting—frequent pulse—furred tongue—bowels regular—*convalescence on the 12th day—relapse on the 18th day of disease*—rigors—hot and dry skin—frequent pulse—furred tongue—severe pains in the back and limbs—headache—slight jaundice—*convalescence with pains in limbs on the 22nd day. Second relapse on the 30th day*—rigors—frequent pulse—hot skin—increased cough—*permanent convalescence on the 35th day.*

Sarah S., aged 45, hawker, never free from cough, was suddenly seized on Friday, July 8, 1848, with rigors, chilliness, frontal headache, and vertigo; her bowels at the time were regular. The rigors were repeated at intervals till she came under observation; she vomited on Friday, Saturday, and Sunday; she took to bed on the Saturday; she had no epistaxis.

On the 7th day she had a hot and dry skin; pulse 112; some headache and vertigo; furred tongue; and had passed two stools. The cough from which she suffered constantly when in ordinary health was troublesome; there was mucous râle and frothy expectoration.

On the 12th, she was convalescent.

She slept well during the night of the 17th day; but on the morning of the 18*th day* was attacked with rigors at the time I saw her.

Pulse 120; skin hot and dry; tongue moist, furred; two stools; complains much of pain in the back.

On the 19th day the pulse was 130; the pain in the back and limbs unabated in severity; the tongue moist and white; she had passed three stools.

She perspired on the night of the 20th day, but

On the 21st day the symptoms were as on the 19th day. She had passed a restless night, and I found her with pulse 120. Skin hot and dry; considerable headache. Tongue white and moist; nausea, and a little tenderness at the epigastrium. The skin was now faintly yellow. She sweated freely during the night, and on the morning of the

22nd day, I found her free from headache; pulse 96; skin cool; a little appetite; tongue moist, furred in the centre only.

23rd day, pulse 84; complains much of pains in the limbs. In two or three days she was again pretty well; but

On the 30th *day of disease* she was again seized with rigors, and on the

31st day I noted: Pulse 120; skin hot. Slept but little last night. Cough troublesome; some sonorous râle; sputa frothy, rather tenacious. Tongue moist and white; two stools.

During the five subsequent days the pulse ranged from 130 to 104. The cough continued very troublesome, and on the 33rd day had, at one point, a slightly rusty aspect. On the 35th day, the sputa was muco-purulent, and on the 38th day she was well; cool skin, quiet pulse, moist and clean tongue, and good appetite. A little cough remained.

The disease in Sarah S. deviated little from its ordinary course; convalescence was rather tardy in being established. Six days subsequent to the date when she was considered to be convalescent, she relapsed. The pulse on the second day of the relapse was 130, offering another example of the little value of a rapid pulse as a ground of prognosis in the disease under which Sarah S. laboured. The second relapse, like the first, was accompanied by very frequent pulse. Primary bronchitis, with a pulse of 130 on the third day would not have terminated as the second relapse did in the case under consideration on the 7th day. In the first relapse this woman was slightly jaundiced—a symptom of considerable diagnostic value.

[To be continued.]

THE INFALLIBILITY OF PHILOSOPHICAL THERAPEUTICS.

BY S. THOMAS D'ALLEX, M.D., &c.

We must carefully abstain from hypotheses in searching for truths of vital influence over the welfare of mankind. For, in experimental philosophy, whatever cannot be deduced from constant or frequently recurring phenomena, is hypothetic, and ought to be shunned as a source of danger, likely to mislead into the paths of error, whence it is so difficult to withdraw.

Moreover, since nothing is more simple, more true, and, consequently, more beautiful, than the system which Nature delights in incessantly developing perfect in all parts, and interesting to a degree, whence arise those erroneous systems, whose baseless fabric invariably crumbles under the march of time, the sure destroyer of all that is not based upon and upheld by truth? Let the question be asked of error and vanity, for from them only can we receive a reply.

The natural taste for novelty contributes, also, in no small degree to bring forth the errors of particular systems, and wonderfully increases their transient triumphs, whilst imagination, uncontrolled by sound judgment, seeks the most extraordinary changes. How contrary to the uniformity and simplicity of nature! Thence, doubtless, the causes to which we must attribute all past and future heresies—the doctrine of Hahnemann and his shallow disciples, who, failing to comprehend the immutable truths of our great ancestors,—truths consecrated by time and experience,—have adopted, with the earnestness due only to truth, the dreams of their notorious leader, whose knowledge of human weakness taught him to infuse that much of truth in his counsels which gives error such vitality and progress.

And here I must point out the extraordinary modesty of

those infinitesimal gentlemen, who, by virtue of their own and their master's authority, put to naught the time-tried wisdom of Hippocrates and his worthy imitators, and stifle the experience of a thousand years, making it almost appear, that at length, after six thousand years, they alone have discovered the truth, and, of course, are justly entitled to bear the noble task of rebuilding, on a new basis, the Temple of Medicine!

But fortunately this heresy, though one of the most presumptuous, is at the same time one of the most insignificant and least dangerous which has ever existed. Its active powers are as feeble for mischief as for benefit. The weapon of the sincere disciple being absolutely *nothing;* and bad indeed is the fortune of those patients who, deserted by Nature, have only the *infinitesimal* powers to rely upon. Justice would demand that the fees of these learned gentry should bear some proportion to the professional guinea that their remedies do to the active and invaluable remedies they dare to reject. But this subject is too serious in the eyes of just and feeling men to bear jesting upon; and the ideological nullity which does not prevent death, whilst promising a cure, can never be defended, nor could, indeed, ever hold its ground, were not men so strangely misled by the passion for strange things, and the power of mysterious art. But, in truth, if we look at the history of all nations, we shall see novelty in every page, folly, fashion, or opinion procuring the triumph of the most absurd ideas, the learned or unlearned alike swelling the general praise. It is doubtless much to be regretted, that so many clever and intelligent men should be misled, equally with the ignorant and uninformed, in judging medical evidence. But such has been, and always will be, the case, so long as the morbid taste for novelty endures, and educated and clever men in other subjects will not remember what, it will be thought, the simplest reflection ought to show, namely, that we can only know what we are taught by the invaluable lessons of our excelling masters, or by that wisdom and that experience which are the admirable offspring of all time and of all nations.

Nor can any of us hope to discharge the part of faithful shepherds to the immense flock committed to our charge, unless we carefully fit ourselves for the assigned task, or, in other words, "Acertis potiùs et exploratis petendum esse, id est, iis, quæ experientia in ipsis curationibus docuerit, sicut in cæteris omnibus artibus." In every case the proper remedy for the mischief of heretical error, is to endeavour to prove, even to the most incredulous, that the great facts to which the world have done homage, by their very simplicity and endurance, show the truth, and are incomparably superior to the specious subtleties of the most plausible heresy.

And to prove ourselves worthy of our noble mission, to do that homage to truth, the neglect of which would be a sin, we must labour incessantly, day after day, to clear from her august face the clouds and mists with which error dares to veil it, and insist upon the recognition of the incontrovertible, daily-recurring fact, that, with a treatment founded on philosophical therapeutics, on a natural system, inveterate disorders may be successfully checked and often cured in a few hours or days, whilst the fanatical homœopaths, armed with their wonderful globules, their *terrible nothings*, their infinitesimal inanities, would combat vainly during months or years. Verily I can say, (for the close observation of four months gave me unusual opportunity,) the *mania Hahnemannia* is the most profound folly ever developed by mystery-loving Germans or any others; and, if a system were dangerous only in proportion to its power, that of homœopathy might be considered almost innocent from its inanity and insignificance; nor need we to elevate it even to the importance of requiring a single critical remark, were it not, unfortunately, impossible to remain indifferent to any error so indirectly mischievous, by the deception it imposes on the patient, and the loss it occasions of precious time, (*occasio præceps,*) too frequently irreparable.

I hasten, however, to the Hippocratic or natural facts the more eagerly, because the more frequently we can draw comparisons between them and the inferences of erroneous systems, the more shall we render it certain they form a natural or complete system, the best adapted for the relief of suffering humanity, when guided and enforced by the genius of enlightened medical men; and, to prove this, I will refer to some remarkable cases I shall hereafter report, and to the principal points of my memoirs.

I also propose to point out the absolute necessity, not only of giving tangible doses of medicines, and varying them according to the intensity or chronicity of the case, but also many other points more closely connected with the system of natural therapeutics, which I have inferred from the labours of my excellent instructors, and the observations of my own practice,—assuredly a very large and successful one.

But, before entering into the parallel between the facts collected by the incomplete allopaths, as well as by the infinitesimal practitioners, and between the facts produced by the complete or philosophical therapeutics, may I be allowed to offer a friendly advice to the medical youth, the rising generation, upon whom all must look with so much interest, wishing it may be received with the same goodwill and sympathy with which it is given.

The young practitioners of the present day begin with much eagerness to labour in the immense quarry of practical science, ardent for praise, and thirsting for fame; hardly have they passed their examinations, or published a few observations in the medical reviews, than they believe to have reached the summit of their own wishes, and are astonished that their reputation does not answer to their merits, which are very often great. Sometimes they complain of the blindness of the world, sometimes of the injustice, not perceiving that opportunity is perhaps wanting, so that public opinion, so occupied in a thousand ways, cannot declare itself but in the lapse of time. They ought also to understand, that it is not sufficient for the wine-grower to have made good wine, but that it is quite indipensable to let it so perfect itself by degrees, until having matured a proper length of time, and become as palatable and as restorative as possible, it will undoubtedly be sought for, and very liberally valued, by the best connoisseurs among the public.

Let, then, our young fellow-labourers wait with patience, nor weary in expecting the harvest which they will undoubtedly gather in continuing their labours, and especially their studies in the inexhaustible book of nature; for at a time and upon a stage like the present, it is not enough to act properly, but we must endeavour to do still better progressively. It is but by renewed efforts, and repeated successes, that any can raise himself above the crowd: medical reputation cannot be acquired in any other way, and it is quite impossible for a man to be happy if he forget that the law of labour is the holy law of humanity, and that this law, like all those established by our Divine Creator, is best adapted for insuring his health, his greatest satisfaction, or the prosperity of his own family, which is inseparable from his own happiness.

Also, let my young friends beware, and take the greatest care not to adopt too easily doctrines or systems not derived from, or not founded on Nature, which will be found too frequently rejected both by Nature and experience. Nothing is easier, when endowed with any degree of imagination, than to lose oneself in monstrous dreams, to strain facts, to exaggerate everything. And now-a-days there are so many and such active imaginations incessantly at work, it is, I think, no small distinction and advantage, when one is found faithful to the Hippocratic traditions; or, in other words, to the first, truthful, simple lessons of Nature delivered to men of genius; following them, however, not with servility and bigotry, but as a sure beacon and safeguard to modern explorers in the paths of science. I do not fear being taxed with prolixity for these exhortations. Never were they so much needed as now; never were nature and truth so outraged as they are by the systematisers of the present day. O Hippocrates and ye, his worthy disciples, from whose rich stores I have drawn in such abundance the manna of sound doctrine, accept here the humble, but most earnest tribute of gratitude and respect of an ardent and admiring follower, whose chief wish and aim in life is to do homage to your genius, and rejoice your noble souls, by labouring unceasingly to compel a universal acknowledgment of those divine therapeutic truths which you discovered and taught.

(As I propose to divide my paper on "The Infallibility of Philosophical Therapeutics," &c., into three parts, in my next I shall detail the general truths by which I have completed my natural doctrine; and, in a subsequent third division, I shall give the most striking proofs of the practical value of my convictions.)

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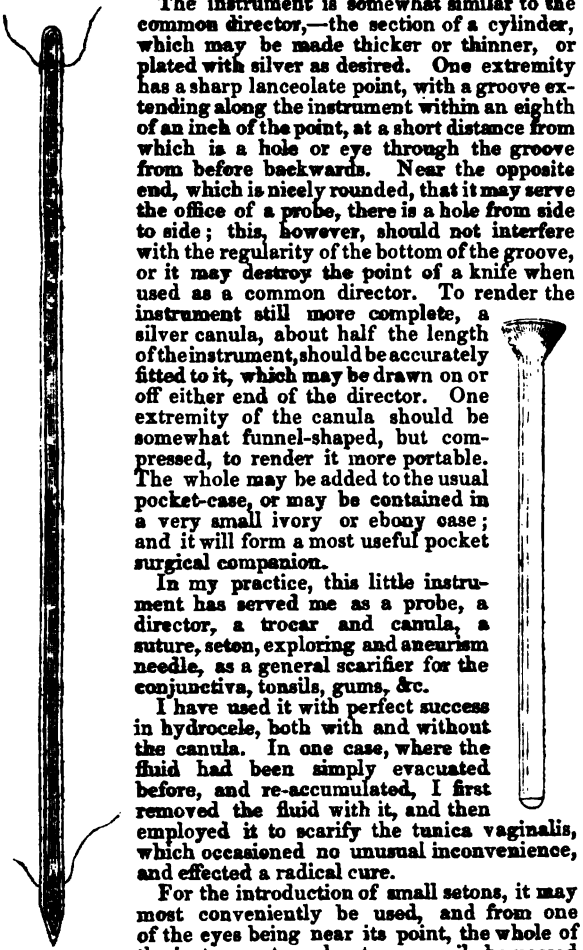
GANGLION TREATED BY THE LANCEOLATE DIRECTOR.

By JOHN MAUND, M.D., M.R.C.S., L.A.C.

Before relating the case of ganglion, which is merely added to the present communication to illustrate the use of the lanceolate director, I wish first to describe the instrument, and the various uses for which I have employed it.

It should be observed that its construction is not entirely original; having seen M. Jules Guerin, at the Hôpital des Enfans Malades, Paris, use very advantageously in ganglion a grooved needle with a cutting extremity, I at once got M. Lour, of Paris, to make for me one or two directors modified according to ideas I previously had of the construction of such an instrument. Since this time I have described and shown my directors to several surgical instrument makers both in London and the country, but never have found any similar instrument in the stock of their establishments.

I have had the instrument made in various ways, but the most simple, cheap, and portable, and therefore more particularly advantageous for the use of the country surgeon, to whom it is an important object to be able to perform as many operations as possible with the same instrument, and that a simple one, such as is illustrated in the accompanying engraving:—(a)



The instrument is somewhat similar to the common director,—the section of a cylinder, which may be made thicker or thinner, or plated with silver as desired. One extremity has a sharp lanceolate point, with a groove extending along the instrument within an eighth of an inch of the point, at a short distance from which is a hole or eye through the groove from before backwards. Near the opposite end, which is nicely rounded, that it may serve the office of a probe, there is a hole from side to side; this, however, should not interfere with the regularity of the bottom of the groove, or it may destroy the point of a knife when used as a common director. To render the instrument still more complete, a silver canula, about half the length of the instrument, should be accurately fitted to it, which may be drawn on or off either end of the director. One extremity of the canula should be somewhat funnel-shaped, but compressed, to render it more portable. The whole may be added to the usual pocket-case, or may be contained in a very small ivory or ebony case; and it will form a most useful pocket surgical companion.

In my practice, this little instrument has served me as a probe, a director, a trocar and canula, a suture, seton, exploring and aneurism needle, as a general scarifier for the conjunctiva, tonsils, gums, &c.

I have used it with perfect success in hydrocele, both with and without the canula. In one case, where the fluid had been simply evacuated before, and re-accumulated, I first removed the fluid with it, and then employed it to scarify the tunica vaginalis, which occasioned no unusual inconvenience, and effected a radical cure.

For the introduction of small setons, it may most conveniently be used, and from one of the eyes being near its point, the whole of the instrument need not necessarily be passed through the wound. It may be used to evacuate abscesses, either by small openings or subcutaneously.

It has been all sufficient to introduce caustics, &c. (either solid or fluid), into tumours or cavities, where a syringe or more appropriate apparatus could not be procured. Any solid matter may be placed in the groove of the instrument, and covered with the canula until it arrives at the part where its application is desired, when the canula can be withdrawn. Of fluids, too, an all sufficient amount can generally be introduced by having the end of the canula made more funnel-shaped than usual; or thread or cotton may be saturated with a solution, and placed in the groove, and retained in its position by being passed through the eye near the point of the director, until it arrives at its required destination.

Lastly, I may add, I have found it of great service in the dissecting-room, in the operation of "tying arteries," supplying all that is required, at least in the superficial vessels, after the first incision is made.

I would not wish it to be understood that I think so simple an instrument can supersede the use of the various contrivances that have been invented for the different purposes I have named; far from it, but merely to state, that I have used it most satisfactorily, and so may others, when a more appropriate instrument could not be obtained; feeling certain, that any portable, simple, instrument,—a *multum in parvo*,—must be of peculiar value to medical men situated in extensive and thinly populated districts, who, like myself perhaps, have met with a severe compound fracture fifteen miles from home, or had to ride a like distance to fetch a catheter.

A. B., aged 35 years, sprained his wrist six years since, which continued weak and occasionally very painful on motion, for about twelve months, at the expiration of which time he perceived a small swelling, about the size of a pea, on the radial side of the wrist. This gradually enlarged for two years, when it vacated the wrist, and made its appearance in the palm of the hand, where it remained for three years, gradually increasing in size, till it had assumed the dimensions and much the shape of a large filbert.

It occasions the patient considerable pain and inconvenience whilst at work, and often compels him to desist milking, which forms the principal part of his usual occupation.

About twelve months prior to the operation being performed, I was first consulted; I then assured the patient that by the swelling being pricked, it might readily and safely be cured. He, however, consulted another surgeon, who told him there was danger in the operation, and at once burst the cyst, and afterwards applied pressure; this, however, failed to effect a cure; and in a short time the swelling was as large and troublesome as it was previous to this proceeding.

The patient now being willing to submit to any operation I thought necessary, I introduced the lanceolate director from below upwards (as I felt the pulsation of an artery surrounding its superior margin), first by pinching up a *pli* of the hardened skin of the palm about half an inch from the cyst, and pushed the point of the instrument through it, when it immediately entered the cyst, and part of the jelly-like contents of which immediately flowed out along the groove in the director, and a little external pressure soon emptied the sac by the same passage, leaving the director alone in the cavity; which was next required to well scarify the interior of the cyst. This, however, from the dense skin through which it was introduced pressing it firmly down against the palm and fingers, could not easily be accomplished by raising and depressing the end of the instrument in the usual way. The object, however, was easily attained by pressing with the finger over the cyst, and gently moving the director backwards and forwards, thereby making it scarify both the upper and lower walls of the cyst at the same time.

The director was then withdrawn, a piece of adhesive plaster placed over the wound, a bit of leather several times doubled to form a pad, to make pressure over the emptied cyst, and a few turns of a bandage to cover the whole, completed the operation.

The next day the puncture was found healed, in fact, the patient could not discover where it had been made; very little pain had been felt, but the cyst presented much the appearance it did previous to the operation, being again distended, apparently with fluid, and painful on firm pressure. The compress and bandage were again employed. On the third day it was reduced to about half the size; on the fifth, the walls were collapsed, and no prominence perceptible; on the seventh, it appeared quite cured, and was not the least painful on pressure; on the eighth he returned to work, and has not since experienced any annoyance from

(a) The instrument from which the accompanying engraving was made was manufactured by Mr. J. E. Maddox, surgical instrument maker, 19, University-street, University College.

it; but on pressure a slight induration can be felt where the cyst previously existed; this, however, is perfectly painless, and the man says the hand is much stronger than it ever had been since the first appearance of the swelling.

The above I believe to be the best mode of treating the majority of such cases. In numerous instances in which I have myself operated, and seen others operate in this way, it has been without a failure, or any disagreeable consequence; while, on the other hand, though perhaps more or less generally successful, I have known pressure, simple puncture, bursting, external stimulants, and injection with tincture of iodine, in some cases fail.

The operation has the advantage of being very simple, not generally painful, mostly applicable, very quickly affording relief, and, to say the least, in the majority of cases successful.

Harlow, Essex.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

BY

W. SENHOUSE KIRKES, M.D.,

Medical Registrar,

AND

HOLMES COOTE, Esq., F.R.C.S.,

Demonstrator of Anatomy in the Medical School.

NECROSIS OF THE PATELLA FROM PROLONGED EXPOSURE TO THE HEAT OF A FIRE.

Case 1.—Robert G—, aged 52, a sallow-complexioned man with unhealthy aspect, but tall and strongly built, returned home after a drinking bout in a state of intoxication, on the night of October 12. Being cold, he sat down before going to bed close in front of the fire, and there falling asleep remained in the same position several hours. When he awoke sober in the morning, he felt pain and heat in the left knee, and, upon taking off his trousers, which were uninjured, he found that there was a good deal of redness, and in one spot a small vesication just over the knee-cap. He examined the trousers with care, but could not discover the least trace of their being scorched or burned. Finding himself unfit for work, he applied at the hospital, and was admitted under Mr. Lawrence, October 15.

Over the outer border of the left patella were two large bullæ, containing a clear watery fluid, and situated upon a red and inflamed base of integument. Beyond this, the soft structures covering the knee appeared to be quite healthy. The patient complained of pain and inability to walk. Upon being questioned as to the cause of this condition of the limb, he first gave a rambling account of having fallen down in the street; and it was only after considerable examination that he admitted the fact of his having exposed the knee to heat, whilst he was intoxicated. He was ordered to lie in bed, and to employ the common local applications. In the course of a few days the bullæ disappeared, their place being occupied by a superficial brown eschar.

Oct. 25.—The joint became swelled and hot; the synovial membrane was distended by an increased secretion of fluid; the movements of the limb were impaired. By the application of leeches and fomentations, and the continuance of perfect rest, the joint soon returned to a quiet state. Poultices were applied to the eschars.

Dec. 3.—The eschars were loose, and removed with the poultice. They left exposed firm, healthy granulating surfaces, which soon coalesced to form one large and irregular open wound. At the upper part was a small, round, and deeply excavated hollow, which contained a slough. Upon passing down a probe, Mr. Lawrence felt the patella rough, and denuded of its periosteum, especially towards its outer margin. At the present date (December 19) the joint is quiet, but over the patella there is an open surface, occupied by luxuriant granulations, measuring about four inches in its long and two in its short diameter. In one spot the patella is quite bare; a portion of uncertain extent is dead, and in process of exfoliation.

Cases of this kind are very rarely seen in English hospitals; but, in the large towns of Scotland, where the labouring classes indulge in strong alcoholic drinks to a far greater excess than is the case with our own countrymen, instances of this affection are by no means uncommon. I am informed by my friend, Mr. E. R. Bickersteth, who has favoured me with these particulars, that a winter rarely passes in Edinburgh without three or four precisely similar cases being received into the Royal Infirmary, and that no sooner is the vesication recognised than attention is directed to the state of the patella. All the cases pass through a somewhat similar course. After the exposure of the knee to the heat of a fire, which rarely injures the dress, a vesication is noticed upon the most prominent part; this passes into a light brown eschar, which, upon separating, leaves a granulating surface, in which may be found a small opening leading down to the patella. Sometimes only a small and superficial portion of the bone is thrown off, and the patient recovers with perfect motion in the limb. At other times, but more rarely, the bone in its whole thickness dies; inflammation of the synovial membrane and of the surrounding soft structures ensues, and the joint becomes disorganised. Instances of this affection are met with in which the effect of the heat is limited to the production of the vesication; a scab forms, which after a time drops off without further injury to the deeper parts; but the contrary is so frequently the case, that the surgeon should guard against giving a too favourable prognosis in the first instance. He might, if unacquainted with the nature of the case, omit insisting upon the early adoption of those remedial measures, amongst which absolute rest ranks the first, which are calculated to prevent the disease running on to its worst result.

Mr. Bickersteth refers the necrosis of the patella to the effect of inflammation excited in the bone by its prolonged exposure to heat. It is certain, from the cases which he has seen, that the bone is not affected secondarily from the extension of the slough down to its surface, for after the separation of the eschar, there remains under the granulations a considerable layer of the ordinary healthy structures.

H. C.

ST. GEORGE'S HOSPITAL.

BY

A. WHYTE BARCLAY, M.D.,

Medical Registrar, &c.,

AND

HARVEY B. HOLL, Esq., M.R.C.S.

ASCITES DEPENDENT ON OBSTRUCTION OF THE VENA PORTÆ BY COAGULA.

A woman, aged 33, was admitted the 20th of Nov., under Dr. Page, with ascites, which had existed for about two months, and had supervened gradually upon an illness of some weeks' duration, in which vomiting and pain in the right hypochondrium were prominent symptoms, and more recently the feet and legs had become œdematous. Further than this nothing could be elicited from her respecting the previous history of the case. She was much reduced in flesh; her countenance was pale, but not sallow; both the sounds and the impulse of the heart were natural; and the urine was healthy. At the end of the third week after admission, she died of peritonitis, considerably emaciated, having suffered repeated attacks of diarrhœa and occasional vomiting; the œdema of the lower extremities, and the effusion into the peritoneal cavity, having progressively increased.

On examining the body fifteen hours after death, all the thoracic viscera were found perfectly healthy; the cavity of the abdomen was distended, and filled with turbid serum, from which several ounces of pus had subsided to the lower parts of the cavity as the body laid in the supine position; the peritoneum was highly vascular, especially that portion of it which invested the intestines, where numerous spots of extravasated blood were thickly scattered beneath its surface and throughout the whole length of the intestinal canal; from the duodenum downwards the subserous cellular tissue was much swollen and infiltrated with serum; the pyloric extremity of the stomach was nearly surrounded by an irregular, but not very elevated encephaloid growth, which extended for about half way along the lesser curvature

of the viscus, and slightly contracted the opening into the duodenum, but did not extend beyond it; the muscular tunic of the pyloric extremity of the stomach was rather thicker than natural; the lining membrane of the intestines was pale, but otherwise presented nothing remarkable; the liver was very small, scarcely two-thirds its normal size, flabby, and of a muddy-green colour, but its structure appeared quite natural; the gall-bladder contained about half or three-quarters of an ounce of rather pale-coloured bile; the gall ducts were pervious; the spleen was of medium size, firm, and apparently quite healthy in structure; the pancreas, the kidneys, and also the mesenteric glands, were likewise perfectly healthy.

The trunk of the portal vein, as far as its bifurcation in the transverse fissure of the liver, was completely filled by an old and nearly decolorised coagulum, which extended for about two inches into the superior mesenteric vein, and along the splenic vein almost to the left extremity of the spleen, entirely blocking them up; and in a similar manner obliterated the interior of the upper part of the inferior mesenteric vein, and for several inches that of the gastric vein also. This coagulum resembled in consistence and appearance the substance found in old sebaceous tumours, and consisted of degenerated blood corpuscles, granular matter soluble in ether, both free and enclosed in cells, and some very delicate fibrillæ; it contained none of the elements of malignant disease.

The *post-mortem* examination of this case is imperfect, inasmuch as the new channels which the blood took in consequence of the obstruction of the vena portæ were not ascertained by dissection. The blood of the spleen was most probably returned through inosculations between the branches of the vasa brevia with the phrenic and œsophageal veins on the coats of the stomach into the general circulation, while the portal blood found its way into the systemic venous system through the medium of the hæmorrhoidal veins. This circuitous course of the portal blood accounts for the œdematous condition of the intestines, which is not usual in cirrhosis of the liver, probably because the impediment to the passage of the blood from the contraction of Glisson's capsule is never quite complete, or, if so, is a process of time, allowing of some provision being made.

The motions which this patient passed during life were not wholly deficient in bile, and after death more than half an ounce of that fluid was found in the gall bladder. This secretion must have been derived from the blood of the hepatic artery after it had passed through the capillaries. That this may be the case is shown by Mr. Benjamin Phillips's experiments, when, having tied the portal vein in dogs, he found that bile was still secreted although in diminished quantity; and Mr. Lawrence has recorded the case of a child, several years of age, in whom the vena portæ emptied itself into the inferior vena cava without having any connexion with the liver. A very similar case occurred to Mr. Abernethy in a male child ten months of age, with this difference, however, that "the umbilical vein was still pervious, and branched out into the substance of the liver," so that it is not improbable, as Mr. Keirnan remarks, "that the arterial blood, after having nourished the liver, was poured into the branches of the umbilical vein, just as it is in the normal state poured into the branches of the portal vein, and therefore the bile might still have been secreted from venous blood."(a) H. B. H.

SEAMEN'S HOSPITAL.

By H. T. L. ROOKE, M.D,
Resident Medical Officer.

FRACTURE OF THE LOWER THIRD OF THE LEFT LEG—DISLOCATION OF THE ASTRAGALUS FORWARDS AND OUTWARDS—DIVISION OF THE TENDONS—SUBSEQUENT REMOVAL OF ASTRAGALUS.

John Andrews, aged 47, a lime-burner, admitted June 14, at 3 p.m., having an hour before fallen from a wharf where he was at work to the bottom of a barge which was alongside, a height of about 12 feet. He was leaning over the side of the wharf, attempting to make fast the head of the barge; the handle of a crane upon which he rested for support came off, he lost his balance, and, finding that he must fall, he made a spring to avoid the gunwale of the barge, and pitched upon his left foot at the bottom of the boat. The foot bent under him.

On admission, there was very great deformity of the limb, the foot being twisted to nearly a right angle with the leg; the tibia was fractured about three inches above the malleolus, and the fibula an inch or so higher; the foot turned inwards, and presenting much the same appearance as a case of talipes varus. On the outer side of the foot was a prominence produced by the dislocation of the astragalus; this bone had been thrown forwards and outwards, and apparently turned upon its axis, so that the surface, articulating with the tibia and fibula, could be felt immediately beneath the skin.

Forcible extension was made and kept up for some time; but all attempts to reduce the astragalus were unsuccesful. The leg was placed upon Liston's splint, and lotio plumbi applied to the ankle.

June 15.—The leg has pained him but little during the night; the deformity is as great as at the time of admission; there is considerable spasmodic action of the muscles. As it seemed highly improbable the limb could be kept in a proper position, Mr. Busk thought it was a proper case to try division of the tendons; accordingly, the tendo-Achillis, that of the tibialis anticus, and of the extensor longus pollicis were divided by subcutaneous incisions. This proceeding was found to be of considerable advantage in diminishing the deformity; but still the astragalus could not be reduced. The bone could be felt immediately beneath the skin, on which it pressed with such force as to endanger its vitality. After the operation, the leg was again placed on Liston's splint, with a wooden side splint on its inner side.

16th.—Complains of some pain in the leg; there is considerable swelling of the foot and ankle; the punctures made in dividing the tendons have closed; the skin over the astragalus looks as if it were about to slough.

Fotus to the leg.

17th.—Has passed a comfortable night; the swelling and pain are less. To continue the fomentation.

18th.—Swelling diminishing; no pain; the skin over the prominent portion of the astragalus has mortified; there is no constitutional disturbance.

25th.—He has been doing well since the last report, fluctuation being distinct over the inner malleolus. Mr. Busk made an incision, from which two or three drachms of pus escaped. Wound to be dressed with water dressing.

July 1st.—The slough over the astragalus was removed this morning; the articular surface of the bone is plainly visible. His general health continues very good.

10th.—Nothing has occurred worthy of remark since the last report. The wounds have discharged healthy pus; the skin over the instep is red, and there appears to be some collection of pus beneath it. Mr. Busk made a small incision just external to the tendon of the extensor longus pollicis. The astragalus is still quite bare; there seem no signs of its being covered by granulations.

25th.—The discharge has been rather fetid the last few days; the exposed part of the bone has become a darker colour. Mr. Busk determined to remove the astragalus. This was accomplished without much difficulty, by enlarging the wound. A small articular branch bled freely; it was secured by ligature.

The astragalus was much discoloured and carious, and a partial fracture extended across its posterior inferior articulating surface.

The integuments swelled somewhat after the operation; but this subsided in a few days. The fetid discharge ceased from this time; healthy granulations appeared; the wounds were nevertheless slow in healing, especially that over the anterior and lower part of the tibia. On introducing a probe, the bone was felt quite denuded, but not rough. It was nearly two months before he was enabled to leave the ship.

Nov. 1st.—He attends twice a week as an out-patient; the wounds are almost close; he can bear his weight on the limb, and there is a considerable amount of motion between the end of the tibia and the os calcis. No exfoliation has taken place, nor does it now seem as if any were about to occur.

(a) Erasmus Wilson, in the Cyclopædia of Anatomy, Art. "Liver."

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FROST-BITE OF THE FOOT—AMPUTATION AT THE ANKLE-JOINT—RECOVERY.

John Lewis, aged 26, a negro, was admitted May 29th with a frost-bite of the left foot. His ship has just arrived from Callao. Off Cape Horn they encountered stormy weather, and the crew suffered severely from exposure to wet and cold.

When admitted, all the toes were mortified, and connected to the foot only by the metatarsal bones, which were exposed and surrounded by high flabby granulations. The bony attachment was divided, and the wound dressed with water-dressing.

June 5th:—A large portion of the integuments of the sole of the foot have sloughed; the discharge from the wound is very fetid. Mr. Busk, being of opinion that the bones of the tarsus were affected, determined to remove the foot at the ankle-joint.

6th.—The patient having been placed fully under the influence of chloroform, Mr. Busk commenced the operation by a semicircular incision extending across the front of the ankle-joint; at either extremity of this an elliptical incision was made; this was directed downwards with its concavity forwards, the extremities meeting inferiorly in the sole of the foot. This direction was given to the lower incision for the purpose of avoiding the projecting lateral angles that are formed when the flaps are adjusted, in cases where the plantar incision is carried perpendicularly downwards on either side. The flap was then dissected from below upwards, keeping close to the bone, as far as the insertion of the tendo-Achillis into the calcaneum. The ankle-joint was next opened, and, by a little careful dissection, the os calcis was separated from the integuments attached to its posterior surface. The articular extremities of the tibia and fibula were sawn off, which completed the operation. Ligatures were placed upon the anterior tibial and plantar arteries; the posterior tibial had not been divided. The flaps were accurately adjusted by means of sutures, a small aperture being left at the lower edge for the escape of any pus that might collect.

7th.—He has passed a good night. The stump is free from pain; no discharge.

9th.—The sutures have ulcerated out; there being a tendency on the part of the flap to drop, strips of plaster were placed beneath it for its support. There is one little slough on the left side, about the size of a sixpence; it is quite limited.

16th.—Has been going on favourably since the last report. The small slough has separated; the wound presents healthy granulations; a small sinus extends upwards on the inner side of the tibia; this was laid open. On making pressure over the centre of the stump, a free discharge of pus takes place from the bottom. Strapping to be applied, and a bandage.

24th.—The discharge not diminishing, Mr. Busk made a dependent opening, through which the contained pus escaped, and a piece of lint was inserted to prevent the edges from adhering.

From this time he progressed favourably. Two or three small abscesses which appeared at intervals in the course of the tendons were opened.

August 10th.—The wound has been healed for a fortnight; he is able to walk and bear his weight on the limb; the integuments of the heel have formed a thick and elastic cushion. He is discharged this day. He has had made for him a leather case, which fits tightly to the stump; and the unavoidable shortening, which amounts to about three inches, is remedied by a wooden block fixed to its extremity.

PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

QUEEN'S HOSPITAL, BIRMINGHAM.

W. J. MOORE, Esq., House Surgeon.

TREATMENT OF LARGE ABSCESSES.

Various plans, as regards the treatment of large abscesses, have been advocated from time to time, and, although many improvements have taken place in this respect, still the number of cases which prove fatal, particularly when there is any complication, such as diseased hip or spine, render their management a matter of great moment. Mr. Parker has had several cases of this description under treatment of late, of which the following is one. Anne Maloy, aged 14 years, was admitted into the Queen's Hospital, on account of a large psoas abscess. She stated that about three months ago she had received an injury of the back, and since that time has suffered from obscure pains in the lumbar and iliac regions. She first noticed a swelling in the thigh about a month back, and at present there is a tumour about as large as a child's head and evident fluctuation. It is not painful. She is of scrofulous habit, and general health not good. She was ordered sulphate of iron and quinine with cod-liver oil, on alternate days, under which she improved much. On May 11th, Mr. Parker introduced a small trocar and canula into the tumour, and evacuated rather more than eight ounces of healthy-looking pus. The canula was closed, left in the wound, and a bandage applied over the whole limb. She continued her medicines, and did not suffer any inconvenience.

On May 14th, more pus was evacuated, and the medicines continued. She continued going on well until May 17th, when she began to flush. At night the pulse became 120 in the minute, and the appetite was gone. The canula was taken away, and the wound closed by collodion. She now again improved, the appetite returned, and she went on well until May 28th, when another quantity of fluid was let out by puncture, the opening being again closed by collodion and lint. This practice was repeated at intervals, and the thigh was now reduced almost to the proper form, and she went on improving until June 30th, when the puncture last made had failed to heal, but there was little or no discharge, and the before large cavity seemed to have become little more than an insignificant sinus. About this time she had an attack of pain, with considerable tenderness, and some swelling on the outer side the thigh. It was at first feared that matter was forming, but a blister being applied the symptoms departed; only, however, to appear in the same spot on the other thigh; here, also, a blister was applied, and its application was again attended with success. She finally left the hospital, on Sept. 6th, able to walk a long distance, and with but little limping, without any discharge or swelling, and only complaining of slight pain, on pressure, in the lumbar region.

HERNIA.

It is generally admitted, that if a patient with strangulated hernia be operated on immediately the likely means have failed in reduction, he has a very fair chance of recovery; there are, however, exceptions to this rule, as old age, debilitated constitution, &c., and Mr. Parker lately was called upon to operate on an old man of 71.

Richard Crosby, aged 71, was admitted into the Queen's Hospital, May 26th. He had had hernia ten years, and occasionally, from his own negligence, gone with it unreduced for two or three days at a time. It had now been unreduced three days, but he had felt no ill effects until within the last twenty-four hours. He had been bathed, and had taken opium before admission, and another bath, glyster, &c., tried in the hospital, were equally inefficient. There was stercoraceous vomitings, colicky pains, and an anxious countenance. There was slight tenderness of the tumour, not extending to the abdomen, and the pulse was pretty good. An operation now being considered unavoidable, it was accordingly performed by Mr. Parker about 11 p.m. The sac was opened, and a small quantity of intestine was found imbedded in a large mass of omentum. The intestine was reduced and the omentum left in the canal, ligatures, a bandage, and pad being applied.

May 27.—He seemed going on remarkably well. He continued improving until May 30, the bowels having been acted on the third day by draughts of sulphate and carbonate of magnesia. On the above date he complained of colicky pains in the abdomen, which were relieved by an opiate. With this exception he had no bad prominent symptom, but gradually sank and died on June 3, evidently from exhaustion, the pulse being rapid and weak, with trachea rattle for some time before death. The wound, however, was nearly healed, and presented a very healthy appearance.

Post-mortem.—The intestines were found universally dark, but one portion about the middle of the ileum more so than the rest. There was no intestine in the canal, but the omentum fully closed it up. There were no adhesions, and

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the opening from the abdomen into the scrotum was nearly direct. It would, therefore, have been vain in attempting to reduce the omentum. In this case also the practice of not opening the sac, generally recommended in large old hernia, would hardly have been applicable, the intestine being underneath the omentum, apparently kept in its strangulated position by it, and not visible until the omentum was removed.

As remarked above, although it is proper to operate immediately we feel a conviction that no other means will prove efficacious, still it behoves not to be too quick in our movements, and, indeed, in some cases this is a difficult matter to decide. Mr. Parker, some time since, had a patient admitted under him, where this uncertainty was particularly manifested.

William Forty, aged 25, was admitted 10 a.m., August 18, and stated, that some five hours before, in getting over a hedge, he fell down. On rising he discovered that there was a large tumour in the right groin, descending into the scrotum. He suffered much pain, and was brought at the time mentioned into the hospital. On examination there was found a large inguinal hernia. The tumour felt as hard as a stone, and gave not the least sensation of elasticity. He did not complain of much pain in the tumour, but had colicky pains of abdomen, with a desire to go to stool, and constant sickness and vomiting, not, however, stercoraceous. The warm bath, the taxis, glyster, and a large dose of opium having failed, Mr. Parker was sent for about 3 p.m., who soon arrived. After examination, Mr. Parker expressed an opinion that it was likely reduction would take place, and therefore decided on waiting two or three hours, although at this time, with the exception of the tumour becoming softer, all the bad symptoms had much increased. He was ordered a dose of castor oil, which he accordingly had. From this time the tumour began to get softer, his bad symptoms gradually ceased, and he fell into a calm sleep. The hernia was reduced spontaneously about 7 p.m.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	January 11.—	Guy's Hospital Physical Society. Eight o'Clock.
——	——	Medical Society of London. *Subject*:—Dr. Snow on the Treatment of Disease by the Inhalation of Medicinal Substances. Eight o'Clock.
Monday,	January 13.—	Geographical Society. Half-past Eight o'Clock.
Tuesday,	January 14.—	Royal Medical and Chirurgical Society. [illegible] Eight o'Clock.
——	——	Horticultural Society. Two o'Clock, p.m.
Wednesday,	January 15.—	Microscopical Society. Eight o'Clock.
——	——	Ethnological Society. Eight o'Clock.
Thursday,	January 16.—	Royal Society. Half-past Eight o'Clock.
——	——	Harveian Society. Eight o'Clock.
——	——	South London Medical Society. Eight o'Clock.
Saturday,	January 18.—	Medical Society of London. *Subject*:—Dr. Henry "On the Assimilative Force in Relation to Hypertrophy and Atrophy. Eight o'Clock.
——	——	Royal Botanic Society. Quarter to Four o'Clock, p.m.

THE MEDICAL TIMES.

SATURDAY, JANUARY 11.

CLINICAL MEDICINE.

We beg to draw the attention of our readers to a correspondence which appears in the present number of our Journal, between Dr. Nelson, Professor of Clinical Medicine at the Birmingham College, and the Court of Examiners of the Society of Apothecaries. Dr. Nelson complains that the study of clinical medicine by no means receives that amount of attention from the pupils which its importance deserves; and he attributes this negligence to the impression which, he says, generally prevails among the students, that attendance upon clinical lectures is not considered compulsory by the Examining bodies, but is merely a piece of formality, to be adopted, or not, at the option of the students. To this communication, it will be seen, the Court of Examiners of the Apothecaries' Society have returned a very distinct reply, to the effect that they consider clinical instruction by means of lectures and otherwise, as a fundamental and essential part of medical education, and that they recommend the medical teachers not to fill up the schedule appropriated to clinical lectures, unless after a *bonâ fide* attendance. They also appear to indicate a desire to encourage the establishment of Clinical Professors at all the Medical Schools, whose duty would be to superintend specially the investigations of the pupils in practical medicine.

Now, in the first place, we would ask, Why is it left to the Court of Examiners of the Apothecaries' Society to take the initiative in so important and useful a course? And why are they left singlehanded in so meritorious an attempt to improve the practical education of medical pupils? By the terms of the Act of Parliament of 1815, the Court of Examiners of this Society have no power to legislate for any education but that which is purely medical; and we ask emphatically, why the College of Surgeons of England have not done as much for surgery as the Court of Examiners at Apothecaries' Hall are endeavouring to do for medicine? The University of London also, which, as an Examining Board holds already a most exalted position in this country, has hitherto made no attempt to encourage a better system of clinical instruction than that which now exists, although it is quite within the power of that body to effect immense improvements in that direction. The examination at this University, unlike that at the College of Surgeons, or at Apothecaries' Hall, extends over a considerable number of days, and is held at different and successive periods; and it is quite competent for that body, not only to enforce attendance upon a regular course of clinical lectures, but also to ascertain, by practical tests, that the student has attended them, and derived profit from them. In the University examinations in anatomy, chemistry, and materia medica, the candidates are very properly required, not only to answer questions in writing upon each of those subjects, but also to perform dissections, to conduct chemical analyses, and to describe specimens of materia medica and botany in the presence of the Examiners; and why cannot a similar practical bearing be given to the examinations in medicine and surgery? The candidates might be taken to an hospital, and there be required to give the diagnosis, prognosis, and treatment of a given number of cases; and we say, very decidedly, that a man who acquits himself satisfactorily in such a trial, is far better qualified to practise his profession with satisfaction to himself, and with benefit to the public, than he who has acquired his knowledge only by poring, however laboriously, over the writings of other people. We do not by any means intend to depreciate the labours of those who lay the foundations of their practice upon the diligent perusal of the writings of eminent authors; but we state most distinctly that such knowledge is of very little use, unless it be combined with that practical information which can only he acquired at the bed-side of the sick. We have known numerous instances where men, by the aid of a strong memory, have mastered with facility the names, causes, diagnosis, and treatment of diseases: they have passed with *éclât* through their preliminary studies: they have gained prizes in medicine and surgery: they have been sent forth by the Examining Boards as highly qualified

practitioners of the healing art, and, when they have come to the bed-side of the sick, they have hardly known the distinguishing features of the most common diseases. It is a positive fact, that many men have obtained prizes at our medical schools, for medicine and surgery, who have hardly ever been within the walls of the hospital! Now, these evils would in great measure be removed by a general improvement in the system of clinical instruction, and in this work of improvement it is necessary for all parties to combine, whether examiners, teachers, or pupils.

We proceed, in the next place, to consider the nature of what is called Clinical teaching. The literal meaning of the term is, of course, that instruction which is carried on at the bed-side of the patient; but the definition has become somewhat extended as medical science has advanced, and as the number of students attending at the medical schools has increased. From these causes, and from others which we shall presently mention, it has become a general and very convenient practice, to deliver the instruction in the form of lectures, in a room adapted for an assemblage of students, adjoining to, though not immediately situated in, the bed-room of the sick. There are many obvious advantages in this practice; for, when the students are very numerous, it is not always possible for all of them to appreciate the symptoms presented by the patient, or perhaps to hear the remarks made by the Professor. Again, in the visit to the sick a number of questions must be asked, many of which may turn out to be irrelevant, and what is of still greater importance, it is obviously injudicious to detail the whole history of a case in the immediate hearing of a patient. If the case should terminate fatally, then it is the duty of the clinical teacher to perform, in a room appropriated to the purpose, the *post-mortem* examination of the remains in the presence of the pupils; to point out to them, before the progress of decay has obliterated the evidence of morbid action, the coincidence between the symptoms remarked during life and the phenomena observable after death; and to trace the effects, whether beneficial or otherwise, of the remedial measures adopted. Hence, although clinical medicine means literally *bed-side* instruction in our profession, it includes the visits of the physicians and surgeons to the sick wards, the lectures of the professors in the clinical theatre, and the *post-mortem* examinations in the dead-house. Now, every one of these branches of clinical instruction is equally important, and it is our intention, in a future number, to indicate the means by which a systematic course of training in all these departments should be introduced; and we conclude the subject for the present with remarking, that, in our opinion, too much attention has been lately given to theoretical lecturing, and too little has been paid to practical instruction, and that we fear much valuable time has been wasted by the student in consequence of this erroneous tendency on the part of the teachers. The result has too often been, that the student has been crammed with theories instead of having his mind stored with practical knowledge, and he has been led to suppose, that poring over the contents of books will supersede the necessity of making himself thoroughly and personally acquainted with the facts revealed by the stethoscope, the scalpel, and the test-tube.

THE PREVENTION OF CHOLERA.

The late tidings from Jamaica are well calculated to create a deep and sympathetic interest in the minds of all of us. We have lately escaped from that frightful disorder which, like one of its own tornadoes, has prostrated our beautiful colony in the dust. We are no strangers to that cry of distress which has resounded from the plague-stricken city of Jamaica, and has met with responsive echoes from the inhabitants of more than half the globe. We may not, indeed, be able to refer to the same fearful catalogue of misfortunes, for it pleased the Divine mercy to soften the affliction in these islands, and the plague-storm passed over without smiting us with its fullest strength. But yet even our experience of this livid pestilence was sufficiently terrible, and the cholera of 1849 will appear in the pages of our histories as one of the great calamities of the age.

It is satisfactory to observe, that the nation seems for once to have been fully aroused to a sense of the danger of these recurring visitations of cholera, and to have determined on adopting those measures of prevention which the science of the day has so emphatically recommended. A great number of private bills will be brought forward in the next session of Parliament, for the sanitary improvement of various towns and districts; a still greater number of towns have placed themselves under the operation of the Public Health Act; the great measure of extramural interment has already been obtained for the Metropolis; the question of water-supply for London seems likely to be satisfactorily resolved; and there can be no doubt that even the Metropolitan Commissioners of Sewers will feel the universal impulse, and will hurry on their most necessary works with an unusual activity. When, in addition to these measures, an exemption from taxation for the light of Heaven shall have been accorded, and when some of the worst districts of the larger towns shall have been cleared, and their inhabitants lodged in model lodging-houses, we shall have accomplished, as far as in us lies, the removal of those accessory causes of cholera upon which appears to depend in great measure the virulence or mildness of the disease.

But we shall not have prevented by such means the appearance of cholera among us. Granted that we reduce the next epidemic to the lowest point of intensity, which, so to speak, will be proper for the special epidemic of 1866, or whenever it may be, we shall not prevent this epidemic from reaching these shores, and causing some increase, although a slight one, of mortality.

In the history of cholera, a grand fact presents itself, which, although known to every one, has never been sufficiently appreciated by the popular mind. Cholera is truly a *visitor* in the western world; it is not indigenous to its soil, is not a product of the conditions of its population. No, it travels from the outer world to England, or to Jamaica, to Europe or to America. We can both foresee its arrival, and can calculate on its departure. There are certain circumstances which, no doubt, give it strength when it reaches us; but, without the cause from without—that cause which we noted entering Russia, traversing its numerous provinces, penetrating Germany, passing from town to town till it reached Hamburgh, and England—without this additional force, there is and can be no cholera. All our sanitary improvements will not prevent cholera from passing again over the world, and over England, some fifteen or twenty years hence; and all we can do by such means is to prevent its localization and development.

To stop short at this point seems to us, indeed, a vital error. The true method of preventing cholera is to attack it in its source. India is almost universally allowed to be the birth-place of the disease. In India are brought

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together the conditions from which the cholera-poison continually springs *de novo*. India is consequently never free from cholera; and every year are witnessed, in some part or other of its vast territory, scenes as frightful as those which Jamaica has just displayed. What should we say, then, of a nation, which possessing two countries, in one of which the disease prevails always, and in the other at long intervals, in one of which is to be found the source of that which afflicts and scourges the other;—what should we say of a nation which forgot the constant prevalence, and adopted measures calculated only to avert the rare attack?

It may be, that many persons looking only at the mysterious and apparently inscrutable phenomena which accompany the progress of cholera, may regard as hopeless any attempt to investigate it in the places of its origin. They may even assert, that it has already been investigated, and that if the officers of the Company's service have failed, no one else need attempt to find out the circumstances which in India give rise to cholera. But to the first of such objections, it is a sufficient reply that, whatever may be the chances of failure, it is at any rate an imperative duty to attempt the investigation, and that the success to a certain extent, of inquiries in England, encourages us to believe that an extended inquiry in India would be of infinitely greater use. With regard to the second point, we may assert, that an *adequate* inquiry has never been carried on in India, and that no conclusion can be drawn as to future success from previous disappointment. But we shall enter more at length into this subject shortly, and shall bring forward the plan which we conceive to be preliminary to an effective and complete prevention of cholera.

APPOINTMENT OF AN UNQUALIFIED PRACTITIONER BY THE ORDNANCE DEPARTMENT AT CORK.

An instance of shameful indifference to the rights of legally qualified medical practitioners, and to the physical well-being of the humbler classes of the community, has lately been exhibited in Ireland,' by certain officers of Her Majesty's Government. It appears, that on the resignation by Dr. John Cronin of his office of Medical Superintendent of "the sick of the Ordnance Department in Cork Harbour," the Government's officers appointed to this duty a Mr. Weare, an individual who is reported *not to possess any professional qualification*. Indignant at the insult offered to the Profession by this appointment, a high-spirited practitioner of Cork consulted with his colleagues of the Cork Union, for the purpose of considering upon the best means of repairing the injustice. Their deliberations eventuated in the determination to lay the case before Dr. Stewart, the Medical Inspector-General of the Ordnance Department, with the hope, through him, of gaining sympathy and redress. They were disappointed. *Three* times they communicated through their Secretary, Dr. Armstrong, with Dr. Stewart, *and received no reply*. Discourtesy had reached its climax, and patience its limits. Treated contemptuously by a brother practitioner, who seems to have forgotten the courtesy due to gentlemen, Dr. Corbett and Dr. Armstrong memorialised the Marquis of Anglesea, the Chief of the Ordnance, and, *nine days afterwards*, they received from Dr. Stewart an apologetic acknowledgment of their former communications. So much for Dr. Stewart. The Marquis of Anglesea, however, refused to grant the prayer of the memorial that had been addressed to him on the ground, "that the inquiries as to the fitness of Mr. Weare for the duty in question *had been satisfactorily answered by competent persons*. We are forced to believe that the *competent persons* referred to are medical men, for none else could be competent to express an opinion upon medical qualifications. Who, then, are those medical men? We hope that Dr. Stewart is not one. He, at any rate, is, by official position, responsible for this most unworthy act, and it would well become his office and his character, at once to make an honourable concession to the demands of his insulted brethren, and to exert all his influence to wipe away this stigma upon the professional character of the department over which he presides.

The Surgeons of Cork have sent a copy of their correspondence to the Governing Boards of all the examining Colleges in the United Kingdom, with requisitions for assistance to enable them to defend with success the principle for which they have so nobly contended. They intend, also, to petition Parliament; and, if they persevere, we doubt not that their object will be ultimately gained.

MEMOIR OF DR. JOHN REID.

[A short Biographical Notice of Professor John Reid appeared in the *Medical Times* of August 4th, 1849; and on the 8th September a complete Life of this eminent physiologist was announced in the *Medical Times* and *Lancet*, as in course of preparation by Dr. J. R. Cormack. In the advertisement referred to, it was stated that Mrs. Reid had placed the necessary papers of her deceased husband at the disposal of Dr. Cormack. Similar aid was promised, and, indeed, to a considerable extent actually given, by Professor Fergusson, Drs. Duncan and Mr. Spence, of Edinburgh, and Dr. Lonsdale, of Carlisle, &c., &c., when it was intimated to Dr. Cormack that a memoir of Dr. Reid was to be written by Dr. George Wilson, with the assistance of others (a) A few days after this, Dr. Wilson's projected work was publicly announced; and Mrs. Reid was promptly released by Dr. Cormack from her actual or implied pledge of exclusive information. Though not dissuaded by Mrs. Reid, and much urged to proceed by some of the most intimate friends of Dr. Reid, Dr. Cormack was, by the occurrences alluded to, led to abandon a task, which, (as appears from the correspondence,) he had evidently entered on with enthusiasm; and which, from the unreserved and confiding letters addressed to him by Dr. Reid, now before us, he was peculiarly qualified to perform. The intercourse between those two friends was sincere, affectionate, and constant. This explanation has seemed called for from the writer of the following sketch, who here acknowledges with gratitude the permission of Dr. Cormack to peruse the documents and memoranda which he had collected at the time he gave up his cherished wish of paying a last tribute of regard to the memory of his departed friend.]

John Reid was born at Bathgate, a village of Linlithgowshire, on the 9th of April, 1809; and he died at his residence, in the ancient city of St. Andrews, on the 30th July, 1849, being, therefore, in the 5th month of his 41st year. His father was a grazier; and in that somewhat speculative occupation he was able, by industry and good judgment, to obtain ample means for comfortable subsistence, and for giving to his family every educational advantage.

In 1823, John Reid, then in his 14th year, commenced his University career in Edinburgh, the classes which he attended being Professor Pillans' Junior Humanity, and Professor Dunbar's Junior Greek. He has been often heard to speak with regret of the early period at which he had entered college, and of the pursuits which he then followed being exclusively classical. Similar feelings, we believe, are common to all whose lot it has been to pass through the same course. With a thorough grounding in Latin and Greek in many cases, and as commonly with a most

(a) Dr. Cormack wrote to Messrs. Sutherland and Knox, of Edinburgh, offering his projected work to them for publication. They said they would consider the proposal; but, after some delay, they intimated that they had arranged with Dr. Wilson.

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miserable smattering of these languages, the Scottish youth are, or used to be, collected in college classes at the early ages of twelve, thirteen, or fourteen, along with young men of nearly twice that age. From this admixture of ages and diversity of attainments, the Professor is placed in the most embarrassing position which it is possible to conceive; and, of necessity, his prelections and examinations are too difficult for some, and too easy for others. From this cause it is that comparatively few reap so much benefit from the classical teaching in the Edinburgh University as might be expected, were the talents of the teachers and taught the only elements to be considered. Though John Reid had not exactly the kind of classical instruction which in after life he felt that he wanted, yet he had a fair acquaintance with the best Greek and Roman authors; and could easily master all the medical authors whose works are written in Latin, with many of whom he was familiar in the original. He never, except from absolute necessity, took a reference at second-hand; and, from abundant knowledge, we can aver, that every quotation or citation to be found in his memoirs had been personally verified. The "Elementa Physiologiæ" of Haller he greatly admired, and carefully studied. His regrets then were not so much at the amount of time which he had devoted to Latin and Greek, as to the physical sciences not having been opened up to him at the same period.

In 1824 he certainly attended, along with the Senior Greek, and Senior Humanity classes, the Junior Mathematics, then taught by Professor Wallace; but there was nothing in the pursuits of this year more mind-expanding than in those of its predecessor.

In 1825 he entered upon his medical career, and the names and order of the classes which he attended are thus set forth in the general certificate then exacted as a qualification from candidates for graduation in medicine. The course of study required for the medical degree is that only which is embraced in the document.

"Ego, Andreas Duncan, M.D., S.R.S., Edin., et in Academia Jacobi VI., Scotorum Regis, quæ Edinburgi est, Mat. Med. P. eidemque à Secretis, et Bibliothecarius hisce literis testor albo Academico inscriptum esse honestum juvenem Johannem Reid, Scotum, Academiæ alumnum et Bibliothecæ civem, harum artium et scientiarum, studio sub Professoribus in hac Academia incubuisse, viz., anno millesimo octingentesimo vigesimo quinto, chemicæ; vigesimo sexto, materiæ medicæ; vigesimo septimo, nosocomium regium frequentasse, historia naturalis, botanicæ nec non medicinæ theoreticæ, medicinæ practicæ, chirurgicæ clinicæ; vigesimo octavo, anatomicæ, chirurgicæ, artis obstetricæ; vigesimo nono medicinæ theoreticæ, nosocomium regium frequentasse, et prælectionibus clinicis medicis interfuisse; trigesimo, chemicæ practicæ. Dabam ex Ædibus Collegii, 2ndo Aprilis, A.D. 1830.

"Andreas Duncan."

It appears from the above, that he attended two courses by Dr. Alison, on "Physiology," (*Medicina Theoretica*,) although, by the University statutes, one course only was required for admission to the M.D. examination. His anatomical studies in the University were only nominal. It was from the brilliant lectures in Old Surgeons' Hall that he imbibed the first lessons in his favourite science, and in the practical rooms in that renowned school—now no more—that he first dissected the human body. In 1829 he received his diploma from the Royal College of Surgeons, Edinburgh, and on the first of August, 1830, he was formally installed in cap and gown as a doctor of medicine, by the late Very Rev. Principal Baird, in presence of the assembled professors, students, and public, along with 107 fellow-graduates. The necessary examinations and the formal defence of a Latin Thesis on "Aneurism" had been previously surmounted. By the official list now before us, it appears that along with John Reid, another illustrious physiologist took his degree,—Dr. Allen Thomson, since Professor of Anatomy in the University of Glasgow. Between Dr. Thomson and Dr. Reid there existed, from the period of pupillage onwards, a great community of delight in physiological pursuits, as well as a warm, steady, and sincere friendship—a friendship, too, which, to the honour of both be it noted, was neither damped nor lessened, but rather augmented and consolidated, by their having been on different occasions rival aspirants for the same professorships.

Having completed his curriculum of professional education, Dr. Reid proceeded to Paris, and there pursued his studies under Dupuytren, Cuvier, Magendie, and others, with the same zeal he had displayed at home. His ticket of admission to the Hôtel-Dieu is now before us,—a coarse yellow card, but hallowed by the associations of the names it bears:—

"Hôtel-Dieu.

"M. John Reid, étudiant en médecine, sera admis dans l'Hôpital aux heures du service seulement.

"Paris, le 29 Octobre, 1831." "Brn. Dupuytren."

Dr. Reid worked during the winter of 1831-32 with Dr. Vose, of Liverpool, Dr. Duncan, of Edinburgh, and Dr. Arpthorp, of London, in a private dissecting-room belonging to M. Breschet. The following extract from a letter written from Edinburgh (February 8th, 1834) to one of the above-named friends in London, whilst affording an insight into his mind, gives an amusing idea of the sort of accommodation afforded to them:—"I am sorry that you have not found something to exercise your mind upon; for I know, from experience, what a miserable unsatisfactory state of feeling it is to be idle, particularly when one is looking out for something to do, and cannot see anything exactly to their wish. We used to think some of our studies rather uninteresting, and have often heartily abused the authors of the many jaw-breaking phrases and tiresome minutiæ with which we were obliged to cram ourselves; yet, with all its small annoyances, I believe we at present, and perhaps for years to come, will look back upon the time spent at college as not the least happy of our lives. Where, for example, could you have found a happier group than when you, Vose, Zeederberg, and myself, were rubbing up our anatomy at Paris under the auspices of old ——. These were merry days, in spite of old Breschet's abominable *Laboratoire d'Anatomie Pratique*, as it pleased the *chef des travaux* to denominate the small filthy garret, with its little black stove and small sky-light window, into which eight of us were stuffed. I suppose the old fellow thought it necessary to give it such a pompous name to reconcile us to the thirty francs a head per month. * * It is hard to know what a young man should do, for medical men are everywhere swarming like the locusts in Egypt. I am still working away among the putrid carcases for about seven hours a-day. You know I never felt any very great disgust at such kind of work; and this is a feeling, which, instead of increasing, generally becomes blunted by habit."

Having gained all the information he desired at Paris and enjoying a summer in Switzerland, he returned to Edinburgh; and soon afterwards, one of those happy accidents, as they are termed, occurred, which afforded him an opportunity for the display of those talents with which he was endowed. Silently, but surely, during the long and arduous years of his studentship he had been laying the foundation for distinction. Unlike many who begin with great pretensions, but soon collapse into insignificance, he commenced with moderation, but his course was ever onwards; whilst others slept and trifled, he thought and worked. His time came, and then he burst forth in all the glory of a mighty mind. Some intellects, like hot-house plants, are forced early to maturity, but soon fade and decay; there are others, of which John Reid's was a striking example, which are developed by slow degrees, but show a boundless capacity for cultivation, and, like his, are capable of yielding rich and inexhaustible returns.

The first decided indication, then, of Dr. Reid's superiority, occurred in connexion with the cholera visitation in 1832. The pestilence raged in Dumfries to such a fearful extent that the resident medical men were physically unequal to the demand for aid. On this being known in Edinburgh, Dr. Reid, with several other young physicians, hastened to assist them. Those with whom John Reid was intimate had remarked in him clear judgment, indefatigable industry, and an enthusiastic devotion to his Profession, but all were surprised at the talent and acumen displayed by him at this emergency. A meeting of medical men was held to discuss various points of treatment then warmly agitated, and the part taken by Dr. Reid in the discussion at once stamped him as a man of mark. Unfortunately, he was disabled by an attack of peritonitis from taking so active a part as he desired during a portion of his stay; but, though the sphere of his usefulness was thus diminished, his value was recognised, and from that moment may his rise be dated. It is due to the Town Council of Dumfries to mention, that they entertained the medical men who in their hour of need had thus stepped forward, and conferred upon them the privileges of burgesses of that ancient town.

In 1833, Mr. Fergusson, who was associated with Dr. Knox in the management of one of the most prosperous anatomical schools in Edinburgh, found himself unable, from his rapidly increasing practice, to devote as much time to the dissecting-room as the magnitude of the class required. At this time Dr. Reid was at home looking out for employment, and as he was known to have devoted much time to anatomy, first as a student, and subsequently as principal assistant to Dr. Knox, overtures were made to him to join the two gentlemen above-mentioned in the management of the school. As practical assistant he had shown great zeal, working in the rooms from nine a.m. till four p.m., and giving a daily demonstration on some anatomical subject, and it was expected that, as a teacher, he would prove a valuable coadjutor; nor were such expectations disappointed.

From letters which passed between the parties prior to the signature of the legal deed of co-partnery, and subsequently, on the dissolution of the partnership, it appears that the connexion was most harmonious; each seemed to exert himself to the utmost

for the common weal, and the results were eminently successful, not merely in a pecuniary sense, but in creating and fostering a zeal for anatomy and physiology among the students, who then resorted to Edinburgh from all parts of the world. At this time Dr. Sharpey also had a flourishing private anatomical class, but within the walls of the University, the teaching of anatomy had degenerated into a formalism, repulsive to the student and injurious to the cause. It is but justice to Dr. Knox and his eminent coadjutors to state, that the reputation of Edinburgh, as a school of medicine, was mainly sustained at this time by the private schools which clustered around the walls of the University, and the names of Knox, Mackintosh, Liston, Fergusson, Syme, and Reid, stand prominently forward as the great teachers of those days,—men of mark not easily to be surpassed.

The chief points in the deed of co-partnery were to the effect that it was to hold good for fifteen years, that profit and loss were to be equally divided between the three partners; that, for his share, Dr. Reid was to pay 250*l.*, and that he should have the power, at any future time, of acquiring a second share on further payment of 300*l.* He was to have the chief management, but Dr. Knox and Mr. Fergusson were to co-operate with him, affording at least two hours daily to the purpose; and, in the event of Dr. Knox or Mr. Fergusson being elected to a professorship, or withdrawing for any other reason, Dr. Reid was to receive a proper consideration. The deed is dated April 15th, 1833; but the arrangements had been virtually concluded some months before, as appears from the following letter, addressed to Dr. Reid at Bathgate.

"Newington, Tuesday, Jan. 15, 1833.

"My dear Sir,—We find it impossible at the present moment to answer your note at any length; but, seeing no difficulty in the final adjustment of all the arrangements to our mutual satisfaction, we have thought it best to recommend your coming to town on the receipt of this.

"The rooms have got suddenly so extremely crowded, such as we have not seen there since 1828, that we have only had time hastily to peruse your note, and will therefore say generally what we think—that it is fair and liberal. We shall require to advise with you, or, at least, we think you should be present to offer your advice regarding the arrangement of a spring course we meditate, and possibly some slight changes in our accommodation. It is, then, our opinion, that you should come to town with as little delay as possible. Our books will of course be open to you in the arranging of all matters, and we even think that you should begin to take some charge immediately. You cannot have too much experience in order to manage so troublesome a being as a student.

"We are, my dear Sir, very truly yours,

"R. Knox,

"Wm. Fergusson."

That Dr. Reid was successful in his management of these "troublesome beings" will presently be seen.

The year 1836 may be considered as the commencement of Dr. Reid's entire devotion to the science of physiology. He had previously given abundant evidence of his taste and capacity for physiological pursuits, and had published short memoirs on "The Structure of the Mesenteric Glands in the Balænoptera Rostrata;" "Injections of the Vessels of the Fœtus, to show some of the Peculiarities of its Circulation;" and "An Experimental Inquiry into the Connexion between the Nervous System and Muscular Contractility," read by Professor Alison at the Edinburgh meeting of the British Association, and published in their "Transactions," 1835. We may here remark that Dr. Reid was a disciple of Professor Alison in physiology, and a great admirer of him as a man—sentiments, which with characteristic single-heartedness, he expressed daily in private, and frequently in the presence of his class.

For some years the chair of physiology in the Edinburgh Extra Academical Medical School had been filled by Dr. Fletcher, a man of great learning and celebrity; but in 1836 he was suddenly removed by death. Thus a vacancy occurred in the then flourishing school in Argyle-square, organized by the late Dr. Mackintosh. The seed sown by Dr. Reid, during years of toil, now began to fructify. His reputation as a physiologist had been established by his papers, and still more by his taking part either as principal or assistant, in various interesting researches. His addresses, also, at the Royal Medical Society, especially some controversial discussions with Dr. Mackintosh, on the circulation within the cranium, had clearly marked him out as the person best suited to fill the breach caused by the death of Dr. Fletcher. Dr. Reid's extreme modesty and diffidence, combined perhaps, with some reluctance at the thought of leaving old Surgeons' Hall, caused him not merely to hesitate, but almost to decide against the enterprise which was urged upon him. It was under these circumstances, when the balance was still vibrating, that four of his intimate friends, Drs. Pollexfen, Carpenter, Cormack, and Mr. J. F. Macfarlane, drew up the following requisition. The original of this document, (in the handwriting of Dr. Cormack) which determined Reid's subsequent career, is now before us. It bears the impress of haste. With the eighty-six signatures, obtained in twenty-four hours, it occupies two sheets of foolscap:—

"Edinburgh, May 18th, 1836.

"Sir,—By the much lamented death of Dr. Fletcher, an important vacancy has occurred in the Extra-Academical Medical School of Edinburgh; and, from the ample opportunites which we have had of judging of your talents, acquirements, and fitness in every respect to lecture upon the Institutes of Medicine, we respectfully but earnestly request that you will comply with our wish, and deliver during next session a course of lectures upon that branch of medical science. By so doing, we feel convinced that you will increase the reputation of this city as a school of medicine; the zeal and success with which you have hitherto prosecuted physiological investigations being already well known to the public. "We are, Sir, with much esteem and respect,

"Your obedient servants,

"John H. Pollexfen, M.D.

"William B. Carpenter, M.R.C.S.

"John Rose Cormack.

"John F. Macfarlane.

"W. W. Henderson, M.D.," and 81 others.

To the deputation who presented the above address Dr. Reid returned the following answer, after having consulted Dr. Alison, who advised him by all means to come forward:—

"TO DRS. POLLEXFEN AND HENDERSON, AND MESSRS. CARPENTER AND CORMACK.

"Gentlemen,—To be thought worthy of so very flattering a testimonial of your esteem and regard as the requisition you presented to me contains, would have afforded me the purest satisfaction and delight, were I not conscious that in it you have formed far too favourable an opinion of my acquirements. I assure you, gentlemen, that the idea of commencing a course of lectures on physiology next session, never once crossed my mind, until it was forced upon me by frequent solicitation; for my attention has for some time past been more closely directed to anatomical than to strictly physiological pursuits.

"It is with the greatest reluctance that I have come to the resolution of agreeing with your request, not because I do not keenly feel the most ardent anxiety to retain your esteem, and of aiming at the honourable distinction which it holds out, but from a deep sense of my own imperfections. In entering upon this important duty to which you have invited me, I shall endeavour, by the most strenuous exertions in the cultivation of this branch of medical science, and by my professional and public conduct, to render myself, as far as I possibly can, worthy of this distinguished mark of your approbation.

"I have the honour to be, gentlemen,

"Your most obedient servant,

"31, Bucclench-place, May 23, 1836." "John Reid.

In reference to this appointment, Dr. Reid wrote as follows to an intimate friend:—

"September 4, 1836.

"Perhaps you may have heard that I intend lecturing next session myself upon physiology. What strange things do sometimes occur within a very short time. I had just as little thoughts of leeturing on that or any other subject a few months ago as I had of going to the moon. However, after Dr. Fletcher's death, and it was determined that Dr. A. Thomson was to leave Edinburgh next winter, I was invited, by a requisition from the students, to lecture on that subject. I have reluctantly complied, and not before asking Dr. Alison's advice. I thenceforth give up everything else, and devote my whole attention to physiology, so that I hope in a short time to make up any deficiencies with which at present I may be justly chargeable. . . . By the by, this has recalled to my mind some of the famous discussions which we used to have in Paris about the respective merits of our countries, and I observe that in some of your letters you have made allusions to my natural prejudices. I grant that few individuals feel more strongly the *amor patriæ* than I do, and though in some of our discussions at Paris I was frequently unjust and ungenerous towards other nations, yet you must not suppose that these were the true and genuine sentiments of my heart, but were called up in the heat of argument.

The following extract from a beautiful letter, written about this time, cannot fail to be read with interest:—

"Edinburgh, Oct. 4, 1836.

"My dear Cormack,—I most sincerely sympathise with you in

your terrible affliction. I have known what it is to part with a dearly beloved relation; and I have felt in all their poignancy the mental miseries with which such a bereavement is attended. It is then, above all other times, that one feels the power and consolation of religion; and I vividly remember the horror and indignation with which I regarded that conduct in myself which alas! at other times, excite in my mind so little concern. Though you have seen the arrows of death directed for a long time against the beloved object who has at last fallen an untimely victim; and, though you were so far prepared to expect the sad event, yet I full well know that this does not lighten the affliction when it arrives at last, so much as some have supposed. But my dear Cormack, I would have you to remember that grief is so far, even under these circumstances, a selfish feeling, and that we have less reason to deplore the condition of those who have departed from this vale of tears, than our own in being deprived of their friendship and love. They are at rest from the turmoil of this vile world in which we are doomed to linger longer; and, though we no longer enjoy their countenance and support, we ought not so much under these circumstances to lament their removal from the sorrows and annoyances which we must for a while continue to endure. When such thoughts come across my mind, I tremble to look into my own breast, for then, alas! I find that my habitual conduct is so much at variance with reason and revelation. . .

"Yours very sincerely,

"JOHN REID.

The popularity which Dr. Reid had gained among the students was evinced in a manner highly gratifying to his feelings, and not a little characteristic of the quarter whence it emanated. The pupils of Dr. Knox's school determined to present him with a piece of plate; and, in order that the proceeding might take place with all due form, he was invited to meet them at a supper, at the Rainbow Tavern. There were about forty students present, and also Professors Knox and Fergusson. At first, all went on with due decorum; but at length, the earnestness with which the devotion was paid to the whiskey-toddy began to tell—tongues became loosened, and the listeners were in a great minority. It was in vain that "Order! order!" was shouted; in vain did the Chairman rap and entreat silence. The uproar increased; till, at length, one moved by the spirit, or rather the spirits in the toddy, jumped upon the table to deliver a speech which grievously oppressed him. The example was contagious; another orator instantly put in his claim, and also jumped upon the table to enforce it, when, just at the climax of the uproar, when at least half a dozen were addressing the company with eager eloquence, the more reverend seniors, including Dr. Knox, Mr. Fergusson, and Dr. Reid himself, as well as some sedate juniors, made their escape into an adjoining room, where they passed some time longer in quieter style. Whether the party chorussed

"Wha last beside his chair shall fa',
He is the king amang us a',"

deponent sayeth not; but the recollection of that very agreeable though too jovial evening no doubt dwells in the memory of many now dignified disciples of Æsculapius.

Dr. Reid having thus undertaken the duties of Lecturer on Physiology, it became necessary for him to retire from the Anatomical School in old Surgeons' Hall. His wishes were met in the handsomest manner by his colleagues; and the following document from Dr. Knox and Mr. Fergusson set him free from his engagements:—

"Old Surgeons' Hall, 2nd August, 1836.

"Dr. Reid having stated to us his intention of delivering a course of lectures next winter on Physiology, and aware that the duties connected with, and arising out of, such a course as an independent lecturer are incompatible with his engagements in respect to his teaching any longer practical anatomy in Old Surgeons' Hall, we, the undersigned, agree to his withdrawing at once from these engagements, and that no debts contracted by us in the conducting of these rooms, nor any responsibility in respect to them, will fall on him from this date.

"R. KNOX.
"W. FERGUSSON."

In order that his lectures might qualify for the different boards, Dr. Reid became a Fellow of the College of Physicians in the following October; and on the 8th of November he commenced the duties of his new office by the delivery of his Introductory Lecture to a large audience, embracing some of the principal medical practitioners in Edinburgh. His reception was enthusiastic, and his energetic and effective delivery gave earnest of his becoming a popular teacher. His course consisted of 110 lectures, and a large proportion were fully written out; at the commencement, however, he had only thirty completed, so that his labour during that season was great. By these lectures, his reputation was fully established; nothing crude or imperfect was brought forward; each fact was well weighed, each disputed point fully discussed with an impartial spirit, and in so trite and philosophical a manner that the whole gist of the matter was clearly brought before his hearers. It was sometimes urged against him, that he dwelt too much upon the *pros* and *cons* of the matter, and did not sufficiently claim for himself an independent opinion; but he argued, that a student should hear both sides fully, and be trained to reliance on his own judgment.

This course was diligently attended by the celebrated George Combe, who was much struck with the philosophical mode in which physiology was taught, and ever afterwards held Dr. Reid in great estimation. He also tried hard, but without success, to make him a convert to his phrenological doctrines.

[To be continued.]

REVIEW.

The Microscopic Anatomy of the Human Body in Health and Disease. Illustrated with numerous Drawings in Colours. By ARTHUR HILL HASSALL, M.B., Author of a "History of British Freshwater Algæ," Member of the Royal College of Surgeons of England, one of the Council of the London Botanical Society, Corresponding Member of the Dublin Natural History Society. In Two Volumes. London. 1849.

Dr. Hassall would have more correctly described his book if he had stated that it consisted of *one* volume, with a volume of illustrative plates. We wish our readers to bear this in mind, because, while in the following remarks we shall feel it our duty to deal somewhat severely with the text, we at once beg to express our admiration of the illustrated portion of the work. Dr. Hassall can have but a very faint idea of the scope and extent of a work truly dealing with "the microscopic anatomy of the human body in health and disease," if he supposes that his volume in any degree approximates to what such a work ought to be. Having provided himself with Donné's "Cours de Microscopie," Mandl's "Anatomie Microscopique," (neither of which works is regarded by any microscopist of repute as at all to be depended on in reference to original research,—Donné giving us much that is new but little that is true; while Mandl, on the other hand, gives a good deal that is true, taken without authority from German sources, but nothing that is new;) the French translation of Henle's "Allgemeine Anatomie," the English edition of Gerber's "Handbuch der allgemeinen Anatomie des Menschen," (a new and enlarged German edition appeared in 1844,) Willis's translation of Wagner's Physiologie, and Todd and Bowman's "Physiological Anatomy and Physiology of Man," and, having laid in a goodly store of pens, paper, and ink, the author of the "History of the British Fresh Water Algæ," emulous, apparently, of his distinguished neighbour, "the Brook Green Volunteer," sat down to contribute England's "share of distinct and independent works on general anatomy." (*Vide* Preface, p. 5.) We regret that his ardent patriotism should have assumed so unfortunate a direction. In earlier days we used to read with pleasure and amusement his unassuming and less ambitious contributions to science,—his memoirs on rotten apples, on pollen showers, on the luminosity of Irish animalcules, and on the rapacity of the Rev. David Landsborough, (who thought that he had as good a right as Dr. Hassall to publish his own observations,) and his irate and somewhat conceited replies to certain of the reviewers of his "Algæ," who did not give him the full amount of credit which he claimed for himself. Had he confined his pursuits to individual departments of animal and vegetable physiology and of natural history, he would doubtless have done good service to the cause of science. But he must needs attempt higher things, and the consequence has been, as might naturally have been expected, a most piteous failure.

In the first place, there is no natural order or arrangement of the different parts of this volume. In a work of this nature we should have expected that the general theory of cell development, both in healthy and morbid structures, would have formed the basement for the remainder of the superstructure, that this would have been succeeded by the consideration of those fluid and solid elements which may be regarded as common to the body; namely, the lymph, chyle,

blood, pigment and epithelial cells, and areolar and elastic tissues, after which the author might have arranged the individual systems as he pleased. Nothing of this sort is, however, to be found in the work under consideration; not a reference to the well-known investigations of Karsten, Kölliker, and Reichert on normal cell-growth, or to those of Vogel, Lebert, Virchow, and a host of other distinguished observers on cell-growth in the pathological epigenesis (to use Vogel's expression) is to be detected by the most careful scrutiny, nor is there an allusion made to the division of the tissues into those which are common to the organs generally and those which present themselves merely in special systems. We shall allow Dr. Hassall to explain his mode of arrangement in his own words :—

"The constituents which enter into the formation of the body, and by the combination of which the human frame is built up, naturally resolve themselves into two orders, FLUIDS and SOLIDS, the latter proceeding from the former."

"In accordance with this natural division of the elements which enter into the composition of the body, it is intended to divide this work into two parts, the first of which will treat of those components of our frame which are first formed—the FLUIDS; and the second will be devoted to the consideration of those constituents which proceed from the fluid elements, viz., the SOLIDS.—Vol. I., p. 1.

Does Dr. Hassall really intend to express his belief, that before any of the solids of his body were formed, he consisted of "lymph, chyle, blood, mucus, pus (when he felt abnormal), milk, semen, perspirable fluid, saliva, bile, urine, pancreatic fluid, &c.?" If in the sentence we have just quoted he means anything at all, this must be what he means. Truly he must have been a most remarkable child!

If our author had intended to enter fully into physiological and pathological chemistry, the arrangement he has adopted would have been convenient enough, and we should not have deemed it necessary to object to it, if he had omitted the marvellous reasons for its adoption to which we have already referred; but in the microscopical examination of the body, it would surely have been a more appropriate arrangement to have classified together the secreting organs and their secretions,—the testicles and the seminal fluid, the liver and the bile, the kidneys and the urine, &c. It has, indeed, occasionally struck us, that Dr. Hassall fancies that he *has* introduced the chemistry of the animal body into his work. Thus, in his article on the lymph and chyle, he tells us how much fibrine and fatty matter are contained in an *unknown quantity* of those fluids. In reference to the blood, we have a brief and imperfect abstract of the researches of Andral and Gavarret, and of Becquerel and Rodier, regarding the variation of the red corpuscles, the fibrine, and the albumen in disease, while no notice whatever is taken of the chemistry of the blood generally. We have analyses of milk by Simon, Haidlen, Peyen, Meggenhofen, Van-Stiptrian, Liuscius, and Bonpt, [we never heard of the *three* last-named chemists; is it possible that Dr. Hassall refers to *two* chemists whose names somewhat approximate to those of his *three* friends, namely, Stiptrian Luiscius and Bondt?] and by Peligot. We have a short notice of the chemical composition of the saliva, condensed apparently from Simon's "Animal Chemistry," where he might have learned the incorrectness of his assertion, that in cases of mercurial salivation "the mercury has never been detected in the saliva;" while no reference whatever is made to the chemistry of the bile—a fluid which "presents but little of interest to the microscopist in its normal state," and which is disposed of in somewhat less than a page. The article on the sweat, which we presume is identical with the "perspirable fluid," mentioned in Dr. Hassall's introductory remarks, as one of the constituents of the body in early life, is almost entirely chemical: and so also is the article on the urine, which consists merely of an advertisement of his proposed work on "Human Crystallography," of Berzelius's analysis of healthy urine, and of a few remarks on the pathology of this secretion condensed from Simon. Beyond this point, we cannot find the slightest reference to chemistry. There are no analyses of bone, or teeth, or of any of the morbid concretions which occasionally present themselves in the human body.

Our readers are now equally qualified with ourselves to decide whether Dr. Hassall considers that the chemistry of the human body is included in this volume. If we are not to consider it as a part of the subject-matter of the work, these notices of the animal fluids to which we have adverted are out of place and altogether irrelevant; if, on the other hand, it has been Dr. Hassall's wish and intention to present us with a sketch of the chemical composition, as well as of the microscopic characters of the textures of the human body, we need hardly hint at the imperfect manner in which he has executed his task.

We must leave this question undecided, as there appears about an equal weight of evidence on either side, and shall proceed at once to consider the claims which Dr. Hassall's volume possesses as a work on microscopic anatomy.

There is nothing new or worthy of notice in the article on "The Lymph and the Chyle." It commences with a "short sketch of the lymphatic system itself," containing nothing that may not be found in the most rudimentary works on anatomy, and just as unnecesary as a topographical sketch of Notting-hill would be in the "History of the Life and Works of Dr. Hassall." It does not contain any reference to Nasse's elaborate articles on the lymph and chyle, to H. Müller's paper on the morphology of chyle, to Reichert's excellent memoir on "The Cleavage of Nuclei," or to the observations of Kölliker on the lymph corpuscles.

More than a hundred pages are devoted to the consideration of the blood. The following are the sub-divisions of this article :—

"Definition—Coagulation of the Blood without the Body—Formation of the Clot—Formation of the Buffy Coat of the Blood—Cupping of the Clot—Coagulation of the Blood in the Vessels after Death—Signs of Death—Globules of the Blood—The Red Globules—the White Globules—Molecules of the Blood—Blood Globules of Reptiles, Fishes, and Birds—Capillary Circulation—Circulation in the Embryo of the Chick—Venous and Arterial Blood—Modifications of the Blood Corpuscles the results of different External Agencies—Modifications the results of Decomposition occurring in Blood abandoned to itself without the Body—Modifications the results of Decomposition occurring in Blood within the Body after death—Causes of Inflammation—Pathology of the Blood—Importance of a Microscopic Examination of the Blood in Criminal Cases."

Fully half the subjects included in this list have no connexion that we can perceive with microscopic anatomy; and, indeed, Dr. Hassall seems to be much of our opinion; for, until we arrive at the consideration of "the red globules," we find no reference to any of his microscopical observations. In his remarks on this subject we find the following observation :—

"The difference in the size of the red corpuscles which has been indicated, is a character common to them in the blood of all persons, and at every age. Another variation as to size exists, which is, that the corpuscles are larger in the embryonic and fœtal than they are in adult existence. This observation is important, inasmuch as it *seems to prove* that the blood does not pass directly from the material system into the fœtal circulation, but that the corpuscles are formed independently in the fœtus."—P. 28.

On reading this paragraph, we directly proceeded to look for the word "placenta," in Dr. Hassall's index, feeling assured that he must have made some extraordinary discoveries in connexion with that structure. Our search was, however, futile, and we are left with the sad conviction that our author must be utterly unacquainted with the researches of Weber, Sharpey, Reid, and Goodsir, regarding the minute structure of this temporary organ. We would specially refer him to Professor Goodsir's paper, in which it is demonstrated that the blood in the vessels of the mother is separated from that in the vessels of the fœtus by the intervention of two distinct sets of nucleated cells.

The remarks on the effects of re-agents on the red corpuscles are scanty in the extreme. They contain the following announcement of an important discovery in solid geometry, namely, that a body, by becoming spherical is diminished, but nothing new on the subject in question.

"The application of water causes the globules almost immediately to lose their flattened and discoidal character, the depressions on their surface are effaced, and they become spherical. This change in the form of the corpuscles is necessarily accompanied by a diminution of their size."—P. 38.

We have no inclination to follow Dr. Hassall through the thirty pages which he devotes to the history of the birth, life, adventures, and mysterious dissolution of a blood globule. It will, however, be satisfactory to our readers to know, that he felt the responsibility of so important a biography, and that he has achieved his task apparently quite to his own satisfaction.

"*Origin of the Globules of the Blood.*—The origin and end of the blood globules. Whence do they come, and whether do they go? These are questions of the highest importance; and it could be wished that the replies to them were of a more satisfactory and definite nature than those which we are about to make will, it is feared, be considered."—P. 51.

"*Dissolution of Blood Corpuscles.*—It is now hoped that a more satisfactory explanation of the *origin* and *end* of the red blood disc has been given, than it was feared, when the writer first approached the consideration of these difficult though most important questions, it would have been in his power to have afforded."—P. 80.

In the thirty pages intervening between these two extracts we find no allusion to the researches of Kölliker, Vogt, Valentin, Reichert, or Fahrner, regarding the development of the blood corpuscle. Although we have a long extract at p. 54, regarding Donné's views of the changes which the blood undergoes in the spleen, nothing is said of the researches of Remak, Kölliker, or Ecker, on this subject.

Under the head of "venous and arterial blood," we find a notice of the observations of Schultz on the action of certain gases on the blood corpuscles, which would more appropriately have been placed in the sub-section "on the effects of re-agents on the red corpuscles." We extract the first sentence, previously warning all our short-winded readers not to attempt to get through it without one or two pauses.

"With respect to the observations of Schultz on the effect of carbonic acid and of oxygen in altering the form of the red blood corpuscles, and on which fact the entire of Henle's theory rests, I would observe that, in conjunction with Mr. Miller, the gentleman who manifests so much of patience, skill, and intelligence in the execution of the drawings of this work, and who is, moreover, an excellent chemist, I have made many experiments, with the view of ascertaining the power possessed by the former re-agent in modifying the form of the elliptical corpuscles of the blood of the frog, the blood being in some cases submitted to the direct action of the gas, and in others, the animal itself being subjected to its influence."—P. 84.

The conclusion at which Dr. Hassall arrives is, that carbonic acid produces no appreciable effect on the figure of the corpuscle. We beg to direct his attention to an excellent monograph by Harless, "On the Influence of Gases on the Blood of the Frog," with which he seems to be unacquainted, and from which he might get some useful hints regarding the manner of instituting this sort of experiments. Our readers will not be surprised to learn that the results of the observations of Dr. Harless are diametrically opposed to those of Dr. Hassall.

We have sought in vain, throughout the whole article, for any notice of Wharton Jones's observations on the arrangement of the corpuscles in inflammatory blood; of the various forms of "white blood," described by Zimmerman, Heller, Virchow, and, more recently, by Dr. Fuller; of the mode of detecting urea in the alcoholic extract of the blood: or of the occurrence of infusoria in the blood.

We turn to the article on pus, and place in parallel columns Dr. Hassall's representation of Vogel's views regarding the formation of this fluid, and the *ipsissima verba* of Vogel himself, as given by his English translator:—

"A third opinion in reference to the formation of pus and mucous globules is that of Vogel, who maintained that they arose out of a transformation of the epithelium, the nuclei of which constituted the corpuscles."—*Hassall*, p. 139.

"The formation of pus is dependent on two very distinct circumstances. In the first place, a fluid must be secreted or separated to act as a cytoblastema; and, secondly, the pus corpuscles must be formed in and from this cytoblastema."—*Vogel*, p. 144.

"Another opinion, namely, that pus-corpuscles are modified epithelium cells, was promulgated at a time when we had no knowledge of the general laws of cell-formation, and knew very little of the epithelium."—*Vogel*, p. 160.

As Vogel's "Pathological Anatomy" was published in 1845, we do not see how Dr. Hassall can clear himself from the charge of extreme carelessness in this misrepresentation of the views of the distinguished German pathologist. We may add, that there is much more information in Vogel's chapter on pus (which, indeed, is one of the best chapters in that valuable book) than in the corresponding article in Dr. Hassall's volume.

The article on the milk is, perhaps, as good as any article in the book; it contains, however, the exploded views of Quevenne and Donné on the cheese-globules; and a discussion, extending over five pages, on the organisation of the milk-globule, most of which might have been advantageously omitted.

The following are Dr. Hassall's views on the milk-globule:—

"The several facts now adduced, while they prove that the milk-globule is not organised in accordance with the interpretation of the word organisation usually given, yet seem sufficient to establish the fact, that it is composed of two distinct organic products, the one internal and fatty, and the other external, and possessed of properties distinct from fat."

"This explanation of the constitution of the milk-globule serves to explain also satisfactorily the facts above alluded to, viz., the non-action of boiling water, [we are told, in the previous page, that it is insoluble in *boiling water raised to a very high temperature!!!*] alcohol, and alkalis, all of which affect more or less fat, [Query, How much fat does boiling water affect, and what is the nature of the affection?] as, also, the slower operation of the ether; it also shows why boiling alcohol should immediately dissolve the milk-globules to which a little acetic acid had been previously added, this latter re-agent first removing their outer coating, which is resoluble in alcohol."

"Between the globules of the previously described fluids, those of the lymph and chyle, of the blood, mucus and pus, and the globules of milk, no structural or functional relation whatever exists, the former being complex and definite organisations or cells, and the latter constituted of two distinct substances, indeed, yet want [*sic*] entirely the attributes of cells, being destitute of nucleus and cell wall."—P. 160.

At page 170, we meet with a very curt and, we should conceive, unique "analysis of the milk of woman by Peyen." The milk consisted of

Butter	5·16
Sugar and cream	7·80

and, as far as we are told, of nothing else. What an acquisition such a lady must have been at M. Peyen's breakfast-table!

The matter contained in the twenty-six pages devoted to the seminal animalcules might have been advantageously condensed into a quarter of the space. In the section on the "Pathology of the Seminal Fluid," we meet with an idea which strikes us as original, and at first sight as somewhat terrible:—

"It seems to me, however, by no means sufficiently proved that an escape of the seminal fluid with the urine does not take place independently of any distinct emission. I am inclined to think that such an escape is an habitual occurrence even with the most healthy, especially with the continent, and that by it the surcharged testes are relieved whenever requiring such relief."—P. 202.

If it be true that our "manly vigour" is thus unconsciously running to seed, we feel bound to return our best thanks to Dr. Hassall for warning us, like a "Silent Friend," of our sad condition.

In the articles on the epithelium and epidermis, we find no reference to the manner in which epithelium and epidermis are formed in situations where normally they do not exist; to the formation and structure of granulations; to the various inflammatory affections of the mucous membrane and the skin, in which the epithelium and epidermis are modified; or to the various forms of epiphytes which have been found on the epidermic and epithelial surfaces.

Similar omissions present themselves in the articles on cartilage, bone, and nerves, but it would be useless to dwell on them.

The most curious, and yet, perhaps, the most valuable, portion of the book is that which is to be found between page 443 and page 474. It is a reprint (of course with due acknowledgment on the part of Dr. Hassall) of the principal parts of the memoirs of Mr. Toynbee, Mr. Simon, Dr. Johnson, and Dr. Gairdner, on the pathology of the kidneys, and is, without an exception, the best illustration of the art of *book-making made easy* that we ever encountered.

Finally, before parting with Dr. Hassall, we would strenuously advise him, before publishing his "Human Crystallography," to devote a little of his spare time to the rudiments of English grammar, and to the ordinary rules of

orthography. Sentences like the following abound throughout the "Microscopic Anatomy of the Human Body":—

"The operation of these principles are beautifully seen, not merely in the blood globules, but more especially in those exquisitely delicate formations, the pollen granules."—P. 26.

"The very existence, on both surfaces of the blood-disc, of a deep central depression, together with its little thickness, almost preclude the possibility of the presence of a nucleus."—P. 30.

"Had iodine been employed, and had it been imbibed by the supposed membrane, and turned of a deep brown, the reality," &c.—P. 157.

"Upon others appear gradually on one or many points a smaller globule, which rests upon the margin, and increases in an insensible manner."—P. 158.

"In either case such milk, whether it be human or not, is deficient of the amount of the nutritive ingredients," &c.—P. 174.

"Donné has shown, that, however much the gravity of the milk may vary, that the density of the serum of the milk is almost constant."—P. 176.

"To Purkinje and Valentin especially belong the honour of making known, in all its extent, the phenomenon of ciliary motion, and [Dr. Hassall frequently uses the word "and" in this unintelligible sense] which before that time had been observed only in some few of the lower animals."—P. 239 (note.)

"It cannot be doubted but that frequent cutting and shaving of the hair tends to increase its thickness."—P. 264.

"In the larynx, the flexibility and elasticity of cartilages assists in the modulation of the voice."—P. 292.

"For myself, I have long entertained the idea that . . . . the condition of vitality of the teeth and of the states of the saliva were to be considered merely as predisposing causes to the affection."—P. 325-6.

"According to the views entertained by the author, a striated muscular fibre, in the earliest period of its development, consists of cells arranged in linear series; these unite together, giving origin to the fibrilla, and not the fibre, and that each fibrilla of a fibre is, in like manner, developed from cells."—P. 355.

The following are a few of the orthographical peculiarities to which we alluded. Dr. Hassall is equally responsible for them, whether they be the result of ignorance or mere carelessness:—

Oxilla, p. xii.; æsophageal, p. xiv.; schlerotic, p. xxiii., (and wherever the word *sclerotic* ought to occur;) cœliform, pp. 58, 59, (for cellæform;) epithetral, p. 111; hœmatine, p. 120; ciliæ, pp. 123, 124, 239, 245, &c.; casine, p. 170; infusoriæ, p. 188; crustaceæ, p. 223; choledocus, p. 238; spiculæ, pp. 305, 306, &c., (in the description of Plate 33 we have the pleasing variation of *speculæ*;) Ottic (ganglion), p. 358. &c., &c.

Moreover, in the perusal of this volume we have met with many names strange to the eye, yet most familiar to the ear:—Majendie, p. 103; Gaverret, p. 85; Bequerel, pp. 109, 111, 351; Rostock, p. 110; Millor, p. 111; Gueterboch, p. 145; Kœlleker, p. 189; Hanfield Jones, pp. 411, 422, 488, &c.

Of the volume of illustrative plates we can, on the whole, speak favourably. In the description of Plate 12 we read, that "the above [a representation of the vaginal trichomonas of Donné] is the only instance of a copied figure being introduced in this work;" yet, further on, we find that "this figure [representing the evolution of spermatozoa] is copied from Wagner's 'Elements of Special Physiology;'" also, that several of the figures of the Pacinian corpuscles (see Plate 46) and of the cochlea (see Plate 59) are likewise copies.

If Dr. Hassall had restricted his work to a simple volume of microscopic delineations of structure, he would have spared us the necessity of this exhibition of critical severity, and we should have had much pleasure in recommending his labours to the favourable notice of the Profession.

GENERAL CORRESPONDENCE.

PERINEAL SECTION.

[To the Editor of the Medical Times.]

SIR,—As my remarks on the perineal section, containing cases illustrating the failure of the operation originally appeared in your journal, I feel confident that you will not hesitate, in justice to a fair and full investigation into the subject, which my contribution has occasioned, to give publicity to this communication. The Profession, who take an unbiassed view of the whole bearings of the question, give you full credit for the judicious part you took in not allowing the *Medical Times* to be the medium of Mr. Syme's personal attack upon me, and will justly appreciate the value of the remarks made upon you by a rival journalist who published Mr. Syme's first letter. Mr. Syme continues his defence in his second letter, in the same strain he commenced it; and which letter, with characteristic impartiality, the journalist to whom I have referred has published, *while he refuses all admission of reply from me into his columns.* The excerpts which he has given from my letter of the 24th of December, 1850, appear to be carefully selected, for the purpose of preventing all explanation or refutation of Mr. Syme's statements. This will appear at once evident from his suppressing the following portions of that letter, viz.:—

1st. "I have two words more on the professional controversy before parting. Mr. Syme, in reference to the cases of stricture, says,—"It turns out, that the first case related by Mr. Lizars is one of those contained in my treatise." It is not for me to say, how or when he made this discovery, for in his first letter he says, "of the cases related I know nothing." His attempt to prove, by the testimony of a nurse and hospital dresser, that there was no hæmorrhage after the operation, is a palpable failure. The proof, at best, amounts to a *non mi ricordo.* The first witness says,—"So far as I know, there was none;" and the other states,—"I am not aware that there was any bleeding after the operation." Mr. Syme himself is totally silent as to whether there was any during or after the operation, and none of the testimony he adduces goes to prove that there was not. Then Drs. Myrtle and Mackenzie contradict each other, as to the general state of the patient's health after the operation, the one describing him as under "general debility," and the other, as having "the look of robust health." I never asserted that the incision might not afford temporary relief; but the history of the case was traced posterior to the dismissal of cured from the hospital, to its fatal termination, proving that the operation does not effect a permanent cure, and in its effects is not so safe and simple as dilatation by the catheter. My account of the disease of the heart being consequent on the loss of blood from the operation, was taken from the man's own lips, and is an abbreviation from the Case-book, folio 192, as narrated by the Infirmary physician, who had been applied to for relief in March, 1850. The name of Edward Munro is entered in the City Parochial Board Book, on the 12th June, 1848, as having bronchitis and stricture of the urethra." You will observe, that disease of the heart was *not then hinted at.*

2ndly. "Mr. Syme states, that it is not expected of him "to inquire further into the cases related by me." He may have reasons for not going further into the investigation; but, though he be silent, the Profession is entitled to a public exposition of the ultimate effects of surgical experiments, in order that it may be seen whether they benefit humanity; and no invectives of scarrility, from whatever quarter they may come, shall deter me from such exposition in the discharge of an important duty."

With characteristic consistency of purpose, the Editor referred to has also excluded a paper of Dr. Mullar, in which my report of the four cases is substantiated and confirmed in every particular. He had Dr. Mullar's paper in his possession, had perused and had commented upon it, in the very number of his journal (December 14, 1850) in which Mr. Syme's communication was inserted. The following extract, relative to these cases, I have taken from Dr. Mullar's remarks on the operation of the perineal section, just published by him:—

Page 6. "*Case* I.—The first case I wish to point out to your readers, is that of the late Edward Munro, forty-one years of age, a plasterer, (and Case 15, in Mr. Syme's work.) He submitted to the perineal section in the Royal Infirmary here, on the 20th November, 1848. The operation was followed by such excessive hæmorrhage, which, according to his own statements, (and those recorded in the journal of medical ward, No. 1,) reduced him to such an extent that he was unable so long as he lived to follow his usual employment, and also required the introduction of a catheter upon several occasions, to prevent the operated stricture from contracting too far. He ultimately died of diseased heart.

"My account of the disease of heart, being consequent on the loss of blood from the operation, was taken from the man's own lips, and is an abbreviation from the case book, fol. 192, as stated by the infirmary physician, who had been applied to in March, 1850. The name of Edward Munro is entered in the books of the parochial Board of the 12th June, 1848, as having laboured under bronchitis and stricture of the urethra.

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"The second case is that of Archibald D. Sutherland, ætat 28, bookbinder (*vide* case 11 on stricture of urethra.) He was operated upon by Professor Syme on the 11th August, 1849, and was discharged as cured, after remaining in hospital six weeks; and states that he bled so profusely for forty-eight hours after the operation, that the mattress upon which he lay was completely saturated, and that it was at last checked by ligatures, which Mr. Keith, then the Professor's resident clerk, put on. He was delirious on the afternoon of the day of operation. Since June, 1850, he requires the regular introduction of catheters, and No. 6 is with difficulty introduced. He has lost the power of ejecting his urine in a stream —it falls perpendicularly to the ground.

"The third case is that of Francis Rodger, an Irishman, ætat. 25, tailor, and one of my own patients. He placed himself under my treatment, having a severe attack of gonorrhœa, on the 5th February, 1849, for which I prescribed. At the end of twenty days, the discharge having nearly disappeared, he again contracted another attack, and for some subsequent weeks led a very irregular life, being nearly for the whole time, more or less, under the influence of drink. He again, in May, made his appearance, and begged that I would prescribe. He progressed favourably for a few days, when he complained that his urine was passed with difficulty, and in a very small stream, the gonorrhœal discharge still continuing to flow copiously. I deemed it prudent not to insert a catheter, and requested him to remain in bed; and every night at bedtime to sit in hot water; and at the same time I prescribed suitable remedies. This he did, and stated that he obtained great relief from the practice, until the third third day, when I was hastily summoned to his residence. Upon examining his perineum, I found a large swelling midway between the raphe and the protuberance of the ischium, which caused great pain when pressed upon, and imparted a feeling of fluctuation, indicating that an abscess had been formed. I made an incision in its most prominent part where the skin seemed to be very thin; a large quantity of pus and blood was discharged, attended by immediate relief to his sufferings. He was desired to poultice until my return. Next day, when I visited him, he stated that the urine had passed more freely, but attended by very severe pain. I strongly advised him to continue in bed, and apply the poultices, &c. What was my astonishment, on my next visit, to find that he had left the house, having been advised to place himself under Mr. Syme's treatment, and thereby be quickly cured; and, if I mistake not, the following day Mr. Syme presented him to the students attending his clinical lectures, pointing out to them the improper and baneful practice of opening a perineal abscess in such a manner. He was ultimately advised to allow his perineum to be bisected, which was performed in March, 1850, and, although he remained in hospital five or six months after the operation, what is the result? He is now confined to his bed with a stricture much more contracted than ever, an exceedingly irritable bladder, and a perineum having several fistulous openings.

"The 4th case, although not operated upon by Professor Syme, was operated upon, in the Royal Infirmary here, and published along with two other cases, as cures, in the *Edinburgh Monthly Journal of Medical Science*, for November, 1850. His name is Joseph Antonio, an Italian, who was operated on in ——— 1850, and now he is truly a most miserable being. I saw him a few days ago; he was nearly crying when he spoke to me about his miserable condition; he states that he has not been able to earn one penny since he left the hospital; his person and his clothes are constantly drenched with urine, and emit a most disagreeable smell caused by the urine passing involuntarily through four or five fistulous openings in the perineum; he also has a very contracted urethra, through which the urine passes drop by drop; his bladder has become very irritable; and when he is compelled to void his water, he is obliged to allow his trowsers to slide down, as if he intended relieving his bowels. He further states, that if he had known before the operation what he now knows, he would sooner have died than submit to it." I am now thoroughly convinced, from the cases I have seen, and from the pamphlets of Mr. Courtenay and Dr. Mullar, that every case is a failure.

Magna est veritas, prevalebitque. Impressed with the force of that maxim, I make the present appeal to you, under the conviction that you will do justice to every discussion falling under your review; and, as the defender of truth and the exponent of knowledge, will oppose and expose all the obstacles that prejudice or partisanship may interpose to misdirect the course of the one, or obstruct the progress of the other.—I am, &c.,

38, Charlotte-square, Edinburgh. JOHN LIZARS.

[Our proposed remarks upon the perineal section question must stand over till next week.—ED. *Medical Times.*]

DURATION OF HUMAN PREGNANCY.

[To the Editor of the Medical Times.]

SIR,—After reading the communication of Dr. Melhuish in the *Medical Times* of December 28, I was reminded of a case which engaged my attention some time ago, and, although it is a *solitary* one, I think it worthy of publication, as correct data upon which we can found an opinion respecting the duration of human pregnancy are exceedingly rare.

I have no doubt of the entire truthfulness of the following statement, as there could be no motive on the part of the patient for wishing to deceive me; she was a stranger to me, and applied for advice in consequence of some uterine affection. On making inquiry respecting her previous condition, she stated that she had been married for about five years, that her husband lived with her from the date of her marriage, 26th May, 1844, until October in the following year, when he left her. During this period no perfect coitus took place in consequence of some imperfection in her genital organs. I know not their precise condition, but suspect there must have been an imperforate hymen, as my patient informed me that she applied to an obstetric physician some time afterwards, who "performed an operation" for her relief. On the 23rd of February, in the following year, her husband unexpectedly visited her and remained with her during the day, then left her, and has not been heard of since. During this day copulation took place *once only*, and impregnation was the result. This female progressed favourably, and was delivered of a well-formed male child on the 19th of November, being a period of 269 days, or 38 weeks and 3 days from the time of conception.

I am, &c., CHARLES WALLER, M.D.

Finsbury-square.

[To the Editor of the Medical Times.]

SIR,—I cannot avoid expressing the surprise I felt on perusing the result of Dr. Melhuish's experience of the mean duration of pregnancy, as detailed in Number 26 of the *Medical Times*. In my own practice,—comprising more than four thousand cases, I have found, as he justly observes, that the period of nine calendar months is by no means an accurate measure of the duration of pregnancy; but, at the same time, I have arrived at the very different conclusion, that the period of forty weeks is in the great majority of cases the closest approximation to a strictly correct determination of the term of utero-gestation; so uniformly do I find this to be the case, that whenever my opinion is requested on this interesting subject, I constantly tell my patients to make their calculation from the day on which the catamenia *commenced* on the *last* appearance of that discharge, and then to allow forty-two weeks from that day to complete the full term; and as it has been determined, that impregnation in most cases takes place within the first week or ten days after the menstrual period, parties seldom find themselves many days wrong in their calculation. In other respects also, I feel obliged to say I cannot subscribe to the conclusions of your correspondent, as I have not observed the remarkable difference of period in relation to the sex of the child, which appears to have fallen under his observation. Again, although there is the strongest reason for believing that the operations of nature are carried on in an exceedingly uniform manner, yet, certainly, occasional deviations from the usual periodicity of pregnancy have come under my own observation, as I could particularise one of my patients, at all events, who gave birth to several of her children in succession at periods fully four weeks later than all ordinary calculation would have fixed for her confinement, and her children, by their extraordinary size, amply justified me in concluding that utero-gestation had in each instance been protracted to ten months, so that I cannot coincide in the strong discredit which Dr. Melhuish throws on these exceptional cases.

I am, &c., JOHN PEARSON.

Stalybridge.

HARE-LIP APPARATUS.

[To the Editor of the Medical Times.]

SIR,—Will you allow me to say that the apparatus for pressing the cheeks together after the operation for hare-lip, which Mr. Fergusson mentions in his lecture, published in your paper on December 21, 1850, is not the first apparatus of the sort which has been tried for that purpose. In the *London Medical Review*, Vol. VI. No. 25, 1801, p. 65, is an account "Of a Peculiar Method of Operating for Hare-lip, Extracted from a Memoir of Mr. Ollenroth, Surgeon."

In the same Number, an illustration of the apparatus which he used for pressing the cheeks together after the operation, is given,

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and by comparing it with the illustration given by Mr. Fergusson, it will be at once obvious that the principle in both is *similar*, and that even the make differs but little, so that the *father* of the child upon whom Mr. Fergusson operated, is not the first who introduced the apparatus. You will oblige by inserting this, as I wish "honour to whom honour is due."

I am, Sir, &c., H. HASTINGS, M.D.

8, Cambray, Cheltenham.

THE HOMŒOPATHS.

[To the Editor of the Medical Times.]

SIR,—If you can spare me a corner in your valuable journal I would esteem it a favour, in order to reply to some of the queries that have been addressed to me through your columns. You found fault with the length of my former letter; but unless I could convey as much meaning in a line as my Lord Burleigh did in that celebrated shake of his head, I fear I should fail to condense the substance of Hahnemann's doctrines within the limits you suggest, or to give satisfactory infinitesimal answers to questions of such magnitude as have been put to me.

To begin with Dr. Wilks' temperate and not uncourteous letter, in your number for December 28, I must protest that I cannot appear as the defender of all that has been written by professional and non-professional advocates of homœopathy; and whilst acknowledging allegiance to Hahnemann, I cannot justify the far-fetched analogies by which some of his avowed followers endeavour to support his doctrines. I may, however, observe *en passant*, that the primary effect of the application of snow and of a wet sheet to the surface of the body is, undoubtedly, a sensation of cold, followed, sooner or later, by a secondary effect—the development of heat; and I may state, that it is in the primary effects only of drugs on the healthy frame that we search for the homœopathic correspondence with the symptoms of the disease we have to treat, the secondary effects of medicines being, as is well known, often directly antagonistic to their primary ones. Thus, opium in its primary action induces sleep and insensibility, whilst its secondary action is abnormal wakefulness and excessive sensibility. Dr. Wilks is mistaken in supposing, that for a case of vomiting homœopathists would administer ipecacuanha in doses sufficient to excite vomiting; and if, as occasionally happens, the symptoms of a malady are increased after the administration of the homœopathic remedy, this is an accident not at all desired by the homœopathist, but which proves that his dose has been unnecessarily powerful or large. To cure both vomiting and asthma, the homœopathist would seek to administer his remedy in such a quantity as not to cause any aggravation of the symptoms present, and generally the same size of dose would suffice for both these diseases; consequently, Dr. Wilks' charge of sophistry falls to the ground, and has originated only in his misapprehension of our practice. To Dr. Wilks's last inquiry, I can unhesitatingly reply, that an ague, for which bark is suitable, yields readily to that drug in infinitesimal doses, and that without being followed by those troublesome symptoms which are often observed to ensue after the ingestion of large quantities of quinine. In proof of this, I would refer Dr. Wilks to a case of intermittent, observed by an opponent of our system, Dr. Balfour, in the Vienna Homœopathic Hospital, and published in the 22nd Vol. of Forbes's *British and Foreign Medical Review;* and my own note-book contains many far more striking cases, observed during a lengthened attendance at the same hospital six years ago. Hahnemann treated all diseases with infinitesimal doses, (with the exception of the first stage of cholera, in which, for special reasons, he directed drop doses of spirit of camphor to be given,) and most of his disciples do the same.

As regards your own observations on my former letter, I may remind you, that the case of sudden derangement of the stomach Hahnemann alludes to, was one produced by some mental emotion, a chill, or over-exertion; and for such a state I have repeatedly given a globule of pulsatilla with very speedy relief. I have no experience of olfaction in such a case, but can readily believe in its efficacy. Where the derangement is caused by improper food, or its excessive quantity, Hahnemann very sensibly advises the speedy evacuation of the stomach. Most of those violent affections you mention as being *produced* by chamomile, are, in fact, symptoms that have, apparently, been cured by that drug, cited in Jahn's Manual, and have not been observed to result from its administration to those in health, and, like most of Jahn's clinical symptoms, are to be received *cum grano salis.*

I am sorry my calculating opponent, Mr. Barrett, has not turned his undoubted talent to greater account in solving the problems I proposed to him by way of apology for our infinitesimals, which I admit to be repugnant to common sense; common sense being the deductions of common experience, which, as yet, knows little or nothing about infinitesimals. I cannot, however, grant him the 1-1000th part of the two ounces of matter he exhales per hour "to lard the lean earth as he walks along," seeing that he must, in this civilised country, make his peregrinations in shoes soled with stout neat's leather or gutta percha, impervious to the exhalations within and the moisture without, and his dog must distinguish the traces of his master's sole (for of exhalations from the body I conceive there is no question here) from those of scores of soles that may have passed and repassed that way in the interval.

In conclusion, I would tender you my thanks for your "friendly hint" about the kind of prison discipline suited for homœopathists; but, for myself, I should much prefer being lashed by your pen to undergoing the infliction of Jack Ketch's cat-o'-nine-tails; for, in the former case, I would be on nearly equal terms with you, whereas, in the latter, the odds would be decidedly against me. I must deprecate your wrath for this rather lengthy letter, which I would have made shorter if I could, to please you, and longer, if I dared, to please myself.—I am, Sir, &c. R. E. DUDGEON, M.D.

Gloucester-place, Portman-square.

CLINICAL MEDICINE.

CORRESPONDENCE BETWEEN DR. NELSON, PROFESSOR OF CLINICAL MEDICINE, QUEEN'S COLLEGE, BIRMINGHAM, AND THE COURT OF EXAMINERS OF THE SOCIETY OF APOTHECARIES.

Queen's College, Birmingham, Dec. 12, 1850.

Dear Sir,—Will you oblige me by giving me some clear and settled idea on the following subject? Your Society's Rules, as exhibited in the Student's Number of the *Lancet*, (September 28, 1850,) declare very distinctly, that each student who commenced his studies, on or after October 1, 1849, must produce, before his examination, certificates of having attended a summer course of lectures on clinical medicine during his second year, and a winter course during his third. Physicians of hospitals, according to duty, are naturally desirous of doing all in their power for pupils. At the same time it must be confessed, that their lectures are seldom attended by the body of clinical students. Now, this is found to be due to an existing impression, both among students and some professors, that the certificates of such attendance, though stated as necessary in your printed rules, are not *imperative* or *essential*, but simply *formal*. I quite coincide with the important view which your Board takes of clinical instruction, but should like to be assured, on undoubted authority, that the rules laid down in this respect are really meant to be carried out, and that the Court intend to second the efforts of clinical professors by looking as much to their certificates as to those of others. So far as I can learn, similar impressions seem to exist amongst the students of other English schools, and therefore the Board, in their accustomed zeal for improving medical education, might, perhaps, with advantage, take some means of making their sentiments decidedly understood throughout the country. The clinical professors have no pecuniary interest in this matter, as all is included in the hospital fees; and, therefore, while endeavouring to excite some zeal for practical study, they only desire the real welfare of their students. That much ardour to a certain extent does exist here, is proved by the fact of twelve gentlemen having put down their names voluntarily for examination by me; but I do think it only just to such as entertain the above impression, that the rule should be clearly understood, as in the event of any such impression being continued, and proving erroneous, they might, at the end of their three or four years of study, and just, perhaps, as they looked forward to some immediate appointment, find themselves in a very awkward and unexpected relation to your Board, such as might damage their worldly prospects through life.

I am, dear Sir, your faithful servant,

D. NELSON, M.D., Edin.,
Physician to the Queen's Hospital, and
Professor of Clinical Medicine.

Henry Blatch, Esq., Secretary to the Court of Examiners of the Society of Apothecaries.

Apothecaries' Hall, London, Dec. 27, 1850.

Dear Sir,—The Court of Examiners of the Society of Apothecaries have directed me to forward to you the following reply to your letter of the 12th inst.

"That the Court of Examiners do not desire to limit or to define

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the plan to be pursued by the physicians of hospitals in delivering clinical instruction to their pupils; but the Court wish that it may be distinctly understood that they consider such instruction as imperatively necessary, and that attendance upon it should be enforced in such a manner as the physicians may think expedient.

"The Court, in proof of their desire to encourage a regular and definite system of clinical instruction, beg to refer to the last copy of their Regulations, page 10, wherein it is stated, that a certificate of attendance upon a course of not less than seventy-five lectures on Clinical Medicine, delivered by a distinct Professor, will be received in place of the second course upon the Theory and Practice of Medicine.

"But, as some of the schools are not yet provided with distinct Professors of Clinical Medicine, the Court at present leave the mode of clinical instruction to be arranged by the physicians; but they repeat, that they consider such instruction to be *imperative* in all the schools, and that the part of the schedule appropriated to clinical lectures should be filled up only after a *bonâ fide* attendance, as in the case of the other lectures."

I am, dear Sir, your obedient Servant,

HENRY BLATCH,
Secretary to the Court of Examiners of the
Dr. Nelson. Society of Apothecaries.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Dr. J. R. BENNETT, President, in the Chair.

CONVULSIVE COUGH.

Dr. Ogier Ward read the details of a case of convulsive cough, occurring in an infant eleven months old, which was attended with tetanic symptoms during the last three days of life. The *post-mortem* examination showed the ventricles distended with serum, and the brain softened to diffluence, but in no part was it redder than usual. The membranes at the base of the brain and the choroid plexus were thickened with crude tubercular matter, quite recent, and studded over with miliary tubercles. Lungs filled in every part with miliary tubercles, and a large patch of crude tubercle on the pleura of the middle lobe of right lung. Upper and middle lobes emphysematous to an extreme degree, the air-vesicles being distended, as well as the interlobular areolar tissue. Spleen full of tubercles of various sizes, and in different stages of growth. Mesenteric glands universally converted into tubercle, but all in the crude stage, though varying in size from a pea to a large nut. The rest of the viscera were healthy. The points that appear most worthy of notice in this case are, first, the fact of tuberculosis being set up in an unweaned child from a temporary indisposition of the mother. Next, the influence of teething, in determining the tuberculosis to the cerebral membranes, and the convulsive character thus impressed upon the cough, so as to completely assimilate it to pertussis, except in the omission of the whoop; thus proving by analogy the influence of the brain in the production of that disease. Thirdly, the effect of the softening of the brain, and the tubercular inflammation of the membranes at its base, especially the latter, in causing the tetanic spasms of opisthotonos and trismus. Fourthly, the peculiarity of the respiration in this and other cerebral affections, characterised by its irregularity, though with a certain rhythm, a long inspiration being followed by several short inspirations and expirations, and terminating in a long expiration. Lastly, in the disproval this case affords of the incompatibility of emphysema with tuberculosis of the lungs.

THE PHYSIOLOGICAL PROPERTIES OF PICROTOXINE.

A paper by Dr. Glover, of Newcastle, on the physiological properties of picrotoxine, was then read. The author commenced by detailing seven experiments, the animals experimented on being dogs, a she ass, a pigeon, a frog, a rabbit, and a gold fish. The results in each experiment, and the *post-mortem* appearances were alike, namely, retrograde movements, shown in a slight degree by convulsive twitches of eye, head, neck, and shoulders backwards, and in an extreme degree by a regular forced retrogression, salivation, and general tremors, bloody stools, laborious breathing, rapid action of the heart and opisthotonos. The autopsies revealed total extinction of the muscular irritability, with great heat of the muscular fibres, the thermometer rising to 115 degrees; irritability of heart, more so of the auricles than of the ventricles, both cavities being distended with black fluid blood; the lungs slightly congested; the stomach and intestines showing marks of irritation, great congestion of the brain and its membranes, especially the lower portions, the cerebellum, corpora quadrigemina, and upper part of the spinal cord, with much bloody serum in the ventricles. The dose of picrotoxine given to the dogs varied from one to two scruples; to the ass, 100 grains; to the pigeon, 4 grains; to the frog, 5 grains; and to the rabbit, 10 grains; 5 grains were placed in the water containing the gold fish, but the picrotoxine is very insoluble in water. In all these experiments it was either given by the mouth, or inserted under the skin of the axilla or groin. The author next proceeded to compare the results of his experiments with those made by M. Flourens in the removal of various parts of the brain, especially of the corpora quadrigemina and cerebellum. The resemblance, he remarked, was very striking. To prove this, a quotation was made from Cuvier's report to the Institute on Flourens' experiments, and the following conclusions were drawn by the author as the legitimate deductions from the results of his experiments:—1. Picrotoxine has the power of determining peculiar movements and effects very similar to those described by M. Flourens as resulting from sections of the cerebellum, and perhaps of the corpora quadrigemina. He did not think, however, that the animals in his experiments were blind until just before death, if then, as in the cases where Flourens cut away the corpora quadrigemina. The iris was certainly in some cases contractile, until the symptoms became very severe, when the pupil was enormously dilated. 2. Picrotoxine also acts powerfully on the spinal cord, and generally is a narcotico-acrid poison. 3. It is not for one of these active principles, so very energetic, that is to say, in such small doses, like conia, aconitina, &c., although a most terrible poison. 4. The animal temperature was much increased in some of these experiments, forming, in this respect, a great contrast with some facts Dr. G. observed several years ago, showing the great diminution of temperature undergone by animals slowly poisoned by the chloride and bromide of olefiant gas, chloroform, bromoform, &c. How far the increase of temperature was owing to the excitement of the nervous system, he (Dr. G.) would not decide." The peculiar movements caused by picrotoxine, Dr. Glover thought, were neither reflex nor voluntary, but should be considered a third kind of motion.

A discussion followed, in which Dr. Cogswell, Dr. Snow, Dr. Garrod, Dr. Routh, Dr. Bennett, Dr. O. Ward, Dr. Semple, and Mr. Canton took part.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. LATHAM in the Chair.

Mr. Solly exhibited a specimen of

CANCER OF THE PROSTATE GLAND,

from a child 3 years of age, who first complained of pain at the lower part of the stomach, and a difficulty in making water, about three months ago, and occasionally since, but playing about during the intervals of pain, without apparent suffering. On the 13th November Mr. Solly passed a small catheter into the urethra, but met some obstruction about the bulb, and again at the neck of the bladder, and could not introduce it fairly into the bladder to draw off any water. A warm bath and an opiate were ordered. By the rectum, the bladder appeared to be contracted, and it was concluded to be empty. On the 14th, Mr. Solly was again foiled. On the 15th, he succeeded in introducing a very small catheter, and drew off nearly a pint and a half of urine. The instrument entered the bladder with great difficulty, and was very tightly grasped. The boy suffered much while it was in the bladder, so much so that it was withdrawn. On the 16th it passed with less difficulty, and, not producing irritation, was retained in the bladder till the 18th, when it was removed; and now a grating sensation was felt, such as might be communicated by a stone, but it did not strike or move anything. On the 19th he had passed urine freely; the catheter was again introduced, but it did not satisfy Mr. Solly of the presence of stone. Having touched something like a stone in passing the instrument through the neck of the bladder, on the 21st, an experienced hospital surgeon was asked to introduce the catheter, and he, upon examination, expressed his conviction of the presence of a stone. On the 23rd, Mr. Green sounded the boy, and stated, that he could not positively feel a stone, though something very like one, but not sufficient to justify an

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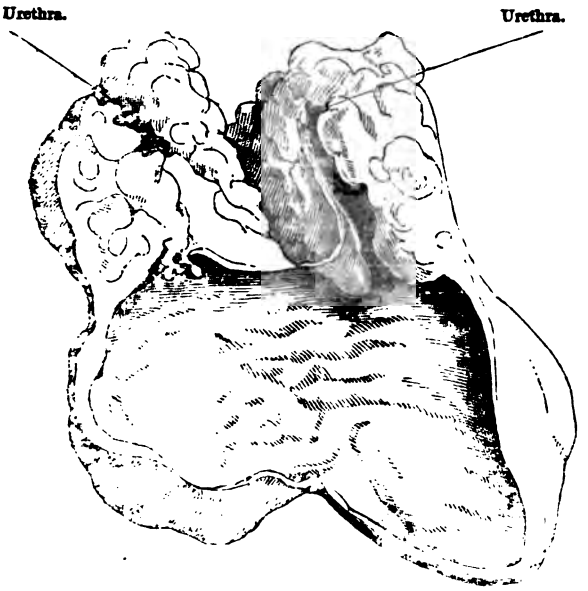
operation. The boy died the next day with symptoms of peritonitis.



Examination.—Turbid serum, effused with flakes of lymph, in the cavity of the abdomen. The peritoneum inflamed. Bladder contained about an ounce of urine. In the situation of the prostate gland there was a lobulated firm tumour, about the size of a hen's egg, through which the urethra could be traced. The tumour presented a cream colour on section, and a lobulated condition, with a fibrous tissue surrounding the lobules, giving it a gristly feel. Mr. Rainey examined it under the microscope, and found that it contained innumerable cells.

Mr. Stafford has related a similar case in the 22nd volume of the "Medico-Chirurgical Transactions." The child was 5 years old, the tumour equal in size to the largest walnut, and consisting of encephaloid and melanotic matter.

Mr. Stanley exhibited a specimen of

RUPTURE OF THE ENDOCARDIUM OF BOTH AURICLES OF THE HEART,

and the pericardium of the left auricle, the consequence of violence.

A man, aged 38, was brought to S. Bartholomew's Hospital with compound fracture of his leg, which had happened an hour previously. Whilst standing directly under a plate of iron weighing eight cwt., he heard the snap of a bolt, and instantly threw himself backward, and fell with considerable force on the ground. The plate of iron dropped on his left leg, which was resting on another mass of iron behind it. Thus the limb was smashed between the masses of iron, producing a compound fracture of both bones of the leg, with extensive laceration of the muscles. On the following day the limb was amputated above the knee. The shock of the accident and of the operation did not appear to make a serious impression on the system; accordingly, the progress of the case was favourable to the fifth day, when inflammation ensued extensively through the cellular tissue of the thigh, accompanied by depression of the vital powers. As he continued to take plenty of nourishing food, with a moderate quantity of brandy, his recovery was not considered hopeless; but on the morning of the twelfth day he became suddenly pale and exhausted, and shortly afterwards he died. Throughout, the predominant character of his pulse was that of feebleness and frequency. During the last few days of life the breathing was oppressed. On opening the pericardium, a clot of blood about the size of half a crown was found loose in its sac. A smaller clot was found lying upon the auricles. Several small effusions of blood were observed between the pericardial covering and muscular substance of the auricles and ventricles, more especially of the former. In the posterior part of the right auricle, between the fossa ovalis and inferior vena cava, a rent, about an inch and a half in length, was discovered in the endocardial membrane of the auricle. In the posterior part of the left auricle, between the pulmonary veins, similar rents were discovered in the pericardial and endocardial membranes. The muscular parietes of each auricle were entire, except at one point in the left auricle, where, in the line of the rent through the pericardial and endocardial membranes, a small aperture was discovered between the muscular fibres, through which it appeared that blood had passed from the auricle into the sac of the pericardium. The lungs contained much serous fluid.

Dr. Quain presented from Mr. James Holt a specimen of

LARGE EXOSTOSIS

from the lower posterior angle of the right parietal bone.

In the dried state, the exostosis measured in length three inches on its anterior and two and a half inches on its posterior aspect, and at its base two and a half inches in diameter, at its apex little more than half an inch, being conical in shape. It was slightly constricted at its middle. The surface resembles the texture of the outer table of the skull; the apex is covered with a thin, hard, black layer, being a portion of bone in a state of exfoliation. The internal surface of the skull corresponding to the tumour is natural; a vertical section of the tumour shows its connexon to the parietal bone by a pedicle about three-quarters of an inch in diameter, the remaining portion of the base being separated by a narrow interval from the outer surface of the skull. It resembles a pine cone or conical mushroom, fixed by a stem, which latter resembles the tissue of the outer table of the skull. The remaining portion of the exostosis is cellular in texture. The structure of the tumour presents the characters of true bone. The specimen was taken from a man aged 40. The tumour commenced about 26 years before death, and was ascribed to a blow. Several metropolitan surgeons had seen the case, but declined to interfere with it. When seen by Mr. Holt, he was suffering from disease of the liver and kidneys, of which he shortly afterwards died. An examination showed a granular condition of the liver and softening of both kidneys, which also contained several small abscesses. The mode of attachment of this large tumour by so comparatively small a base, suggested a point of much practical interest; viz., that if the nature of this connexion could have been ascertained during life, it might probably have been removed with safety.

Mr. Coulson exhibited a portion of the

ABDOMINAL PARIETES AFTER TAPPING,

from a married woman, aged 56, who had been tapped eighteen months before death for ovarian dropsy. The wound from the trocar never healed, but presented a red, puckered, mamillated projection, and increased to the size of a crown-piece. The integument in its vicinity soon began to thicken, and presented a nodulated appearance, leaving no doubt of its malignant character. The dropsical enlargement did not return.

About a month before death she complained of great pain in region of the wound, and fœtal matter was observed to ooze from it. Vomiting also came on at this time and was somewhat mitigated by large doses of opium.

Examination.—A cyst sufficient to contain a large orange found internal to the opening into the abdomen. It was lined by a smooth membrane, and internally composed of a dense (almost fibrous) tissue; how the sac was formed it is difficult to say. The small intestines were situated round the cyst, and at one portion of the ileum were agglutinated to it. At this point the intestine had ulcerated into the cyst. In the right ovary there was a cyst about the size of a small egg. The left was healthy. No sign of disease was observed elsewhere. Mr. Coulson thought the preparation interesting, because,—first, the wound from the tapping had never healed; secondly, a simple wound in healthy integuments had caused and was followed by malignant disease in the part; thirdly, the dropsy had never returned.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted members of the College at the special meeting of the Court of Examiners:—

Sutton, John Maule, Greenwich, a volunteer to proceed to Jamaica, to afford relief to the cholera patients.

Forester, Henry, Camden-villas, Camden-town.

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ROYAL COLLEGE OF SURGEONS.—The eminent house of Dulau and Co., of Soho-square, have been appointed foreign booksellers to the Royal College of Surgeons.

MILITARY APPOINTMENTS.—99th Foot, Patrick Carroll, M.D., to be assistant-surgeon, vice Galbraith, promoted on the staff, Hospital Staff.—Assistant-Surgeon George Thomas Galbraith. M.D., from the 99th Foot, to be staff-surgeon of the second class, vice Courtenay, deceased.

NAVAL APPOINTMENTS.—James Young, acting assistant-surgeon, Victory; Daniel Finnane, acting assistant-surgeon, Impregnable; Abmuty Irwin, acting assistant-surgeon, Impregnable; Henry C. S. Willow, assistant-surgeon, Victory.

OBITUARY.—At Buckee, on the 14th ult., Dr. John Miles, aged 77. At sea, 22nd September, off Grey Town, Mosquito, West Indies, John William Duncan, Esq., aged 23, assistant-surgeon R.N. On the 21st ult., at Brompton, W. H. Brownson, M.D., late surgeon to Her Majesty's 2nd. West India Regiment, aged 37. On Christmas-day, G. A. Scriven, M.D., at Deptford, aged 34. Dr. Scriven died by poison. He had but recently returned from Canada. Being in unhappy circumstances, the unfortunate man destroyed himself by taking oxalic acid.

MUNIFICENT BEQUESTS.—The trustees to the property of the late Colonel Cheape, of Girgenti, have paid over the sum of 1,800*l.* to each of the Infirmaries at Edinburgh, Glasgow, Dumfries, Aberdeen, and Inverness. It is expected that 200*l.* more for each of these charities will yet be realised.

CHOLERA IN JAMAICA.—The following medical men have been sent out by Government in the steamer Severn, to take charge of cholera cases in Jamaica:—Dr. Tucker, Dr. Beveridge, and Dr. J. Brown; and Messrs. Campbell, Crawford, and Murphy. Dr. Gavin, Dr. Laidlaw, and Dr. Milroy, are gone out as medical inspectors. Dr. Beveridge, who only arrived from Jamaica by the last West India steamer, where he had been serving on board the Imaum, volunteered to go out again. About sixty or seventy casks, cases, and packages of medicine were sent out to Jamaica by private merchants, and between forty and fifty by Government. From the latest accounts, it appears that our Profession has not escaped the ravages of this disease. The following medical men are named as having fallen victims to it in the several districts of Jamaica:—Dr. Archibald Palmer, St. Katherine; Dr. James Macfadyen, Kingston; Dr. Charles M'Dermott, St. Thomas in the Vale; Dr. Isaac Murcott, St. Ann's; Dr. John Tait, Clarendon; Dr. Peter Tabois, Clarendon; Dr. Hugh P. Crichton, St. George. Died of fever during cholera:—Dr. T. M. Fishbourne, Montego Bay; Dr. John Ewart, Clarendon; Dr. John Chambers, St. James.

METROPOLITAN FREE HOSPITAL.—Mr. Borlase Childs has been appointed surgeon to this Institution. The vacant physicianships have been filled by Dr. Richardson and Dr. Ramskill.

EDINBURGH ROYAL INFIRMARY.—The following is an abstract of the daily register of patients admitted during the year, from the 1st October, 1849, to 1st October, 1850, showing the result of the cases:—

Patients remaining in the hospital at 1st October, 1849 .		282
Patients admitted from 1st October, 1849, to 1st October, 1850		3708
		3990
Of these were—		
Dismissed cured	2383	
" relieved	435	
" with advice, or at their own desire .	182	
" as irregular or improper . . .	191	
" having received no benefit . .	51	
Died in hospital	391	
		3633
Patients remaining in the hospital at 1st. October, 1850 .		357

Of the cases treated to a termination in the course of the year, 520 were cases of fever; 1764 were ordinary medical cases, other than fever; and 1349 were surgical cases, which were treated in the surgical hospital and the auxiliary houses in connexion with it. The average daily number of patients in the house, throughout the year, has been 363; the greatest number at any one time, 391; the lowest, 298; and the average time during which each patient remained under treatment, 32 days.

ARMY MEDICAL OFFICERS.—A Parliamentary paper has just been published, entitled "Return of the Number of Medical Officers (Staff and Regimental) of the Army, who have been killed during the late wars, for which honorary rewards have been granted; and a similar Return for the Medical Officers of the East India Company's Army:" Moved for by Sir De Lacy Evans. Without stopping to consider the monstrously ungrammatical style of this heading, which announces honorary rewards for the killing of medical officers, staff and regimental, we may state that Surgeon Harcourt, of the 44th Regiment, was killed on the 12th January, 1842; and Assistant-Surgeon W. Balfour and Dr. W. Primrose of the same Regiment, the next day, in Affghanistan; that Assistant-Surgeon Graydon, of 50th Regiment, was killed on the 18th December, 1845, at Moodkee; Assistant-Surgeon Gahan, of the 9th, on the 22nd, at Ferozeshah; Assistant-Surgeon Howell, of the Rifles, on the 11th January, 1847, in Kaffirland; Dr. Loch, Assistant-Surgeon, 7th Dragoon Guards, on the 13th November; and Surgeon Campbell, of 73rd Regiment, the same date, both in Kaffirland: making a total of eight medical officers killed in battle in six years. Staff-Assistant Surgeon Hume was killed in Canada on the 5th December, 1838, during the rebellion. Of the East India Company's service, we have eight medical officers also killed in three years, all in Affghanistan; to wit—Percival Lord, Assistant-Surgeon, Bombay establishment, on the 2nd November, 1840; Surgeon Grant, on the 23rd November, 1841; Superintending-Surgeon W. Duff, of Bengal establishment, on the 10th January, 1842; Assistant-Surgeons Carden and Bryce, the same day; Assistant-Surgeon Metcalfe, on the 12th; Surgeon Harper, on the 14th; and Assistant-Surgeon Thomas Brickwell, Bombay establishment, on the 10th October, 1842. Three of these were killed on one day, the 10th January, 1842, and another two days afterwards. And yet it is said that army medical officers are merely civilians!

THE TEMPEST PROGNOSTICATOR.—A member of the Profession, Dr. Merryweather, of Whitby, professes to have discovered a "tempest prognosticator." The nature of this instrument is not described in a circular forwarded to us. We are, however, informed, that "it will be published at the opening of the Great Exhibition of all nations."

PARISIAN MEDICAL SOCIETY.—The following gentlemen have been elected office-bearers for the ensuing twelve months:—J. W. Begbie, M.D., President; George Fleming, M.D., Vice-President; W. R. Sanders, M.D., Secretary; R. Sarell, Esq., Treasurer.

ELECTRICITY.—The *Mining Journal* announces that Mr. Andrew Smith, C.E., had discovered the affinity between aërial electricity and terrestrial magnetism. It can hardly be called a discovery, for men of science have long believed in their identity.

THE *Piedmontese Gazette* lately contained a decree for the reorganisation of the military sanitary corps. According to this decree no medical man will be admitted in future into this corps who has not obtained the degree of doctor both in medicine and surgery, and undergone a special examination for admission.

LIVERPOOL DISPENSARY.—Dr. Tandy has been elected Physician to this Institution.

NEW TEST PAPER.—A correspondent writes:—"In using the test papers of litmus and turmeric for the acids and alkalies, I have observed that the finer shade of alkalinity was sometimes not satisfactorily shown by the turmeric, in its changing the yellow to brown; it will, therefore, be found of great advantage, to possess a test in one paper that will display not only the positive mark of acidity and alkalinity, but also the slightest deviations from their distinctive colours. Such a test will be obtained by rubbing the corollas of the malvias or malopes over a sheet of common writing paper, (whether glazed or not is unimportant) until it assumes a violet hue; the expressed juice of the flowers will have no effect, the petals imparting their colour to paper. This produces one of the best test papers, developing a redness of colour where the slightest quantity of acid exists; and a fine green colour for the alkalies is displayed that can never be mistaken, being so apposite a contrast to the blue. This will be found a useful compendium, and particularly convenient for examining the secretions. As I believe these effects from the blossoms of the malvias not to be generally known, and not at time very easily obtained in country places, where the usual test papers may not be at hand."

MR. WILDE ON THE IRISH OPHTHALMIA.—The exceedingly graphic account of the ophthalmia in the Irish workhouses, from the pen of Mr. Wilde, in the *London Journal of Medicine*, must interest all those engaged in Poor-law practice and the study of ophthalmic diseases. In compliance with the request of the Poor-law Commissioners, as before stated in our pages, Mr. Wilde visited the Tipperary and Athlone workhouses last August. The disease first appeared among the pauper children in the spring of the previous year, and continued progressing until October, when it assumed a more virulent character; the workhouse becoming so crowded, that it was found necessary to procure additional hospita

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accommodation. Much of Mr. Wilde's report is taken up, very properly, with suggestions as to the necessity of sanitary measures in these new hospitals, for which he deserves the thanks of all right-thinking people. The entire Report is full of interest, and reflects much credit on its author.

PARLIAMENTARY INTELLIGENCE.—NEXT SESSION'S SANITARY CAMPAIGN.—Notice has been given of intentions to bring forward the following bills. Twelve of these are for the metropolis.

1. East London Waterworks, for increasing their supply of water.
2. New River Company—to enable the Company to increase their supply.
3. Metropolitan Water Supply—for vesting the control of the water supply in commissioners.
4. London (Watford) Spring-water Company.
5. Metropolitan Waterworks—Henley-on-Thames and London Aqueduct—for supplying the northern parts of the metropolis.
6. Smithfield Enlargement—for enabling the Corporation of London to enlarge the market.
7. Metropolitan Cattle Market—for removal of Smithfield.
8. Islington Cattle Market—for enlarging the market.
9. Clerkenwell Improvement—for enabling the Corporation of London to complete the new street from Farringdon-street.
10. Wandle Water and Sewage Company.
11. City of London Sewers—for granting further powers.
12. Kensington Improvements.

(There appears to be every probability, therefore, of a stout contest between water companies and market proprietors. The Government, however, will probably settle the water supply; but, whether or not the Corporation of London will succeed in their project for preventing the removal of Smithfield, it is difficult to say. They have the *Times* and common sense against them.)

The following Bills are for the country:—

13. Birmingham Improvement.
14. Manchester Improvement.
15. Liverpool Sanitary.
16. Liverpool Building.
17. Cheltenham Improvement.
18. Hastings Improvement.
19. Leicester Sewerage—for making a new outfall for the sewerage, with reservoirs and works for converting the sewerage into manure.
20. Leicester Waterworks—for altering the works, and authorising an arrangement with the Local Board of Health.
21. Bath Improvement—for obtaining a further supply of water.
22. St. Helen's Improvement.
23. Sunderland Improvement—for the general improvement of the borough, and for extending the municipal limits to the parliamentary boundary.
24. Great Malvern Improvement.
25. Elland (Yorkshire) Improvement—for improving, sewering, draining, and lighting with gas.
26. Newark-upon-Trent Improvement.
27. Weston-super-Mare improvement—for extending the limits and granting further powers.
28. Cambridge Waterworks.
29. Wrexham Improvement.
30. Stockton Waterworks.
31. Hove Improvement.
32. Whitby Waterworks.
33. East Stonehouse Waterworks.

Of these Bills the most important are those for Leicester, Sunderland, and Cheltenham. We trust that the example set by these towns will be followed by the other principal towns of the kingdom, and that in 1852 we may have to record as long a list of improvement Bills as that which now appears in our columns.

FEES OF MEDICAL OFFICERS UNDER THE NUISANCES REMOVAL BILL.—Dr. Hector Gavin appeared on the 1st. instant, at Worship-street, to call on the Board of Guardians of St. Matthew, Bethnal-green, to show cause why they refused to pay him costs and expenses incurred in carrying out the provisions of the Nuisances Removal Act. Dr. Gavin's charge was 18*l.* 18s. for inspecting the premises of Mr. Gould, dust contractor, on various occasions, reporting thereon, and attending the police-court repeatedly. Part of the charge was for visits paid after the defendant had promised to abate the nuisance, to see that he carried his pledge into effect. The Guardians contended that Dr. Gavin was at the time Medical Inspector of Nuisances for the district, and that the services in question formed part of his official duties. Mr. Arnold said, he was at a loss to see any equitable principle on which the claim could be repudiated by the parish authorities, after the services rendered by Dr. Gavin, and he considered the refusal to allow any remuneration whatever as eminently unjust. He, however, under the Act, had no power to award remuneration for the repeated visits to the premises after the proceedings at that Court had ended. He was of opinion, that the claim of 11*l.* 11s. for visits to the nuisance in the first instance, and attendance at the Court, was a fair and reasonable demand, and should order the payment of that amount by the Board of Guardians.

KING'S COLLEGE HOSPITAL.—The Corporation of this Hospital intend applying to Parliament in the ensuing session, for a measure to enable them to hold lands for the purposes of the College, for providing sites for the Hospital, for approaches thereto, and for pulling down the present buildings.

DEATHS *in the Metropolis for the week ending Saturday, Jan.* 4, 1851.

CAUSES OF DEATH.	Jan. 4. 0	15	60	All Ages.	Sum of Ten Weeks.
ALL CAUSES	553	485	330	1369	11672
SPECIFIED CAUSES	530	484	329	1364	11600
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases	178	43	18	239	2313
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat	7	18	29	54	59
3. Tubercular Diseases	57	133	10	201	1751
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses	44	34	41	119	1401
5. Diseases of the Heart and Blood-vessels	5	35	23	63	3·9
6. Diseases of the Lungs, and of the other Organs of Respiration	127	102	92	321	2362
7. Diseases of the Stomach, Liver, and other Organs of Digestion	23	35	15	73	649
8. Diseases of the Kidneys, &c.	...	6	6	12	90
9. Childbirth, Diseases of the Uterus	...	7	1	8	106
10. Rheumatism, Diseases of the Bones, Joints, &c.	1	4	2	7	83
11. Diseases of the Skin, Cellular Tissue, &c.	1	...	...	1	16
12. Malformations	1	...	...	1	26
13. Premature Birth and Debility	33	1	...	34	240
14. Atrophy	14	...	2	16	146
15. Age	...	...	59	59	759
16. Sudden	12	11	9	32	222
17. Violence, Privation, Cold, and Intemperance	47	55	22	124	451
Causes not Specified	3	1	1	5	72

1. Small-pox	28	Paralysis	35	Disease of Spleen	...
Measles	29	Delirium Tremens	1	8. Nephritis	1
Scarlatina	14	Chorea	...	Nephria or Bright's Disease	4
Hooping Cough	58	Epilepsy	7	Ischuria	...
Croup	9	Tetanus	...	Diabetes	2
Thrush	1	Insanity	3	Stone	...
Diarrhœa	19	Convulsions	35	Cystitis	...
Dysentery	1	Disease of Brain, &c.	9	Stricture of Urethra	2
Cholera	1	5. Pericarditis	5	Disease of Kidneys, &c.	3
Influenza	5	Aneurism	3	9. Paramenia	...
Purpura and Scurvy	...	Disease of Heart	55	Ovarian Dropsy	...
Ague	...	6. Laryngitis	11	Childbirth (see Metria)	6
Remittent Fever	3	Bronchitis	152	Disease of Uterus, &c.	2
Infantile Fever	...	Pleurisy	7	10. Arthritis	...
Typhus	48	Pneumonia	101	Rheumatism	6
Metria or Puerperal Fever	3	Asthma	37	Disease of Joints, &c.	1
Rheumatic Fever	1	Disease of Lungs, &c.	13	11. Carbuncle	...
Erysipelas	14	7. Teething	14	Phlegmon	...
Syphilis	4	Quinsey	4	Disease of Skin, &c.	1
Noma or Canker	1	Gastritis	1	17. Intemperance	2
Hydrophobia	...	Enteritis	8	Privation of Food	1
2. Hæmorrhage	11	Peritonitis	2	Want of Breast-milk	9
Dropsy	18	Ascites	3	Neglect	...
Abscess	1	Ulceration (of Intestines, &c.)	2	Cold	...
Ulcer	2	Hernia	3	Poison	6
Fistula	1	Ileus	2	Burns and Scalds	27
Mortification	4	Intussusception	...	Hanging, &c.	15
Cancer	15	Stricture of Intestinal Canal	1	Drowning	16
Gout	2	Disease of Stomach, &c.	5	Fractures	41
3. Scrofula	9	Disease of Pancreas	...	Wounds	6
Tabes Mesenterica	12	Hepatitis	6	Other Violence	1
Phthisis (or Consumption)	147	Jaundice	3	All Violence	112
Hydrocephalus	38	Disease of Liver	19		
4. Cephalitis	6				
Apoplexy	25				

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BIRTHS AND DEATHS.

	Births.	Deaths.	Births over Deaths.
Males	839 } 1592	693 } 1369	136 } 223
Females	753 }	676 }	87 }

The Deaths in the several Districts are as follow :—

Districts.	Population in 1841.	Jan. 4, 1851.	Sum of Ten Weeks.
London...	1948369	1369	11672
West	301189	204	1662
North	376568	244	2156
Central...	374199	223	2133
East	393067	305	2568
South	503346	393	3153

Epidemiological Society, Jan. 6, 1851.—Dr. Babington, President, in the chair.—A meeting of this Society was held on Monday last, in the Library of the Royal Medical and Chirurgical Society, under the Presidency of Dr. Babington, when sixteen candidates for membership were proposed. Dr. Bryson's paper on Cholera was read; after which some remarks were made by Lieutenant-Colonel Sykes, Dr. M'William, Dr. Snow, and others. The President announced, that the Council had resolved to appoint Committees to investigate small-pox and vaccination, to inquire into hospital epidemics, and to examine the lodging-houses of the poor, with a view to ascertain their influence in originating or spreading epidemic diseases. At the next meeting, a paper by Dr. Elliott Hoskins, of Guernsey, on the spread of Cholera and Small-pox in Guernsey, will be read.

TO CORRESPONDENTS.

It is with deep regret that we are obliged to delay the publication of many valuable papers by eminent and much-esteemed correspondents. Our library-table, although neither "groaning" nor "bending beneath the weight" of communications, nevertheless exhibits a most gratifying proof of the estimation in which our journal is held. We propose to give a larger number of "Original Communications" in each publication, and thus more speedily to lay before our readers the mass of valuable papers we have accumulated.

Our Hospital Reports.—Dr. Charles Kidd has ceased to furnish Hospital Reports to this Journal. Much as we estimate Dr. Kidd's abilities, and regret that he is no longer on our staff, it is our determination to confide our Hospital Reports solely to gentlemen in immediate connexion with the several Institutions, and in daily communication with the medical officers.

Mr. Mackern.—We find Mr. Mackern to be a member of the Irish College of Surgeons and Apothecaries' Company; and, therefore, although in London an "illegal practitioner," is, nevertheless, a "qualified" person. Mr. Mackern, however, should know that the initials after his name, M.R.C.S., mean, by implication, that he is a member of the College of Surgeons of London,—and that more especially, when he gives his address at Clapham Common. Things must be called by their right names; and we entreat gentlemen who do not wish to appear to fill a position to which *de facto* they have no right, to have a jealous regard to the letters by which they wish to designate their qualifications.

A Correspondent asks :—"Does Dr. Jenner emphatically consider that the typhus and typhoid fevers are within the exanthematous order of diseases?" We understand Dr. Jenner to state, that typhus and typhoid fevers arise from specific causes, have a determinate duration, run a particular course, and are in a large majority of cases attended by a characteristic skin eruption, the general symptoms in neither arising from any appreciable change of structure, and consequently, we suppose Dr. Jenner would class typhus and typhoid fevers within the same order as scarlet fever, measles, and small pox.

J. C.—The authority in question has promised to write to our Correspondent.

Distressed Medical Men.—Subscriptions received—

J. S.... ... ... £2 2s. 0d.
Z., Postage Stamps 10s. 0d.

Distressed Medical Men.
[To the Editor of the Medical Times.]

Sir,—The cases you have mentioned lately of destitute medical men, are very distressing, more especially one you took notice of in a Leading Article in to-day's Journal

I enclose you a trifle in Postage-stamps, and will ask you kindly to apply it where you think it most wanted. I am really ashamed to send such a small sum; but I can assure you my will is good to send a much larger one, only my means are not such as to warrant my being more liberal.

I trust that your generous appeal on behalf of our suffering professional brethren and families may indeed be warmly responded to.

Will you kindly acknowledge the receipt of this letter in your answers to Correspondents next week. I am, &c.,

January 4, 1851. Z.

Advertising Medical Men.
[To the Editor of the Medical Times.]

Sir,—In turning over some recent numbers of the "Dublin Medical Press," my eye fell on the following advertisement:—

"DR. JACOB'S CATARACT NEEDLES.

"These needles, made under Dr. Jacob's direction, and proved by him, can be had at the office of the 'Medical Press,' 15, Molesworth-street, price 2s. 6d. free by post."

Can you inform me if this advertising gentleman is the President of the Royal College of Surgeons in Ireland, and whether he is the same whose pen is so often dipped in gall towards others, in the "Curiosities of Medical Literature," which from time to time appear in the above journal, of which Dr. Jacob is proprietor? I am, &c.,

Park-street, Bristol, January, 1851. A Lover of Consistency.

*** We blush to say that it *is* the President of the Dublin College who thus advertises! What would *he* have said if Mr. Lawrence or Mr. Green had turned cutler, and advertised knives or needles "free by post." The paragraph above quoted is a great curiosity in medical literature.—Ed. *Med-Times.*

L.L.D.—There is a fine specimen of the *Megaceros*, or Gigantic Fossil Elk, in the Museum of the College of Surgeons. Our Correspondent would doubtless be admitted on presenting his card.

Medicus.—Hydrocyanic Acid has long been exploded as a cure for cataract. Beware how you trust yourself to the individual in question, or you will open your eyes with a vengeance at his "bill of costs."

Apogee.—We question whether you would be able to obtain the information you desire. The expenses of the Council and Examiners' dinners—eight in the year—do not form a separate item, but we suppose go down to the charge for "bottles, spirits, &c."

The Speculum.
[To the Editor of the Medical Times.]

Sir,—A young friend went out on a visit to one of our large towns, and complained of headache. Her friends consulted a "peeping Tom," who instantly said she had ulceration of the neck of the uterus: that he would call again, bring his speculum, and examine her thoroughly. Her mother being a sensible and modest person, refused to expose her daughter to the lecherous gaze of this most impudent satyr. I need not tell you that she got well without further trouble. Pray, is it common for *very pretty girls*, about 18 or 19, to have such complaints so as to make it necessary to have "the neck" touched with a solution of caustic twice a week?

Yours *ab origine*,

A Tyro of 33 Years' Standing.

Dr. Gregory's Reply to Dr. Knox's remarks on "Vaccination and Re-vaccination," (reprint from the "London Journal of Medicine,") shall appear next week.

Dr. Haynes Walton's letter on the recent debate at the London Medical Society, on the resection of the head of the femur, shall appear next week.

Fair-Play is thanked.

X. Y. Z.—We will forward the note; but we feel assured the proposal will not be entertained.

Shade of Leeuwenhoek.—*Amicus and G. H., Greenwich.*—It is really astonishing how many observations are palmed upon the public as novelties which have been made centuries ago by the oldest microscopic observers, Leeuwenhoek, Malpighi, and their contemporaries. Among such observations we may class the description of the structure of the coffee berry, published in a contemporary journal last week. On referring to the selected works of the venerable Leeuwenhoek, translated by Hoole, we find an engraving corresponding in every material point with that to which we have alluded, accompanied by a description, not only of the structure of the berry, but also of the mode of preparing the beverage from it, tallying most exactly with that in the number of the journal published on Saturday last. Dr. Pereira, in his work on "Materia Medica," has also pointed out the various adulterations of coffee.

Communications have been received from—

Dr. Semple, of Torrington-square; Dr. Balfour, of Fort Pitt, Chatham; Dr. Hastings, of Cheltenham; Mr. Travers, of Dover-street; Mr. Merritt, Hon. E.I.C., Leadenhall-street; Dr. Barclay, of Curzon-street, May Fair; Dr. Edward Smith, of St. John's-wood-road; Dr. Budd, of King's College; Dr. George Gregory, of Camden-square; Dr. George Merryweather, of Whitby; Dr. Armstrong, of Cork; Mr. McDougall, of Henrietta-street; Z.; J. S.; A Lover of Consistency; LL.D.; Medicus; Agogos; Dr. Routh, of Dorset-square; R. C.; Professor Lizars, of Edinburgh; Mr. Milton, of Jewin-street; X. Y. Z., of Southampton; Mr. Lionel Beale, of King's College Hospital; Mr. Holmes Coote, of St. Bartholomew's Hospital; Mr. Haynes Walton, of Grosvenor-street; Medicus; Dr. Waller, of Finsbury-square; Mr. Garlike, of Rickmansworth; Jacob; A Tyro of 33 Years' Standing; Mr. Ward, of the London Hospital; A Correspondent; Shade of Leeuwenhoek; Amicus; G. H., Greenwich; W. Monday, Olveston; Mr. John Walker, Homœopathic Chemist of Conduit-street; D. W. S.; Fair-Play; Mr. Pollock, of Grosvenor-street.

We are unwillingly obliged this week to omit communications from Mr. Jones, on Self-Supporting Dispensaries; Mr. Markwick, on a New Application of Vulcanised Indian Rubber; the Report from Guy's Hospital, by Mr. Pavey; Mr. Drew's Case of Excessive Quantity of Liquor Amnii; Mr. Falloon's Case of Scarlatinoid Rash after Delivery; Advice to Students by Vigilantius; our Foreign and Provincial Correspondence; Extracts from Foreign Journals. All are in type, and we hope next week to give them publication. Dr. Venables' communication is in the hands of the printer.

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ORIGINAL LECTURES.

CLINICAL LECTURES ON SURGERY,

AT

GUY'S HOSPITAL.

By BRANSBY B. COOPER, Esq., F.R.S.,
Senior Surgeon to, and Lecturer on Surgery at, Guy's Hospital.

The cases that I shall have to draw your attention to to-day, Gentlemen, are not in themselves calculated to excite a peculiar amount of interest; but, if not especially attractive, they are at least useful and instructive, as they afford us examples of what we frequently meet with, and have to encounter in private practice. To plunge at once *in medias res*, I shall first read you the report, and afterwards make some remarks on a case of

TERTIARY SORE.

F. S., aged 36, a married man, having a debilitated and cachectic appearance, states that, previously to the last five years, he was strong and robust, and of pretty regular habits. He then contracted a syphilitic sore on his penis, which, under a course of mercurial treatment, healed up, or skinned over, in six weeks, leaving a hardness, which, however, gradually subsided spontaneously, for he had discontinued the use of mercury as soon as the sore had disappeared. Not long afterwards, there appeared, without any further exposure to a suspicious intercourse, a number of little pimples or sores over the penis, which discharged a watery kind of fluid, and, after existing for some time, died away, leaving others, which had since sprung up, to take the same course, and to become a constant source afterwards of annoyance and irritation to him. These entirely subsided, on the appearance of two extensive superficial sores on the right arm, which, on healing, were succeeded by an intense headache, lasting for three months, and yielding at last, under the hands of the late Mr. Aston Key, to the administration of the iodide of potassium. Soon after this, a sore appeared on the upper lip, next a few small sores in the nose and meatus auditorius externus, accompanied with an ulcerated throat; then his prepuce began sloughing, and in a very short time entirely sloughed away, leaving his penis bare. About a year and a-half ago, two ulcers on his right lower extremity occurred, one on the calf of the leg, the other on the thigh. The latter healed, under the influence of tonics, followed by mercurials, and rest; and the former nearly healed, but then remained stationary for some time, whilst there existed two ulcers on his forehead; when the latter healed, the ulcer on the leg again began to extend itself, and since then it has remained intractable, although about last August he laid up with it for nine weeks, and underwent a course of mercurial treatment. It now got better, and decreased very much, but, on going about again, it became worse, and has continued progressing until his admission into the hospital. On the calf of the right leg—about its centre—is a sore, extending from the outer to the inner side, and larger than the palm of the hand; the centre of it is granulating, and secretes a whitish pus, which covers and protects it; but the margin is bevelled, and the cutaneous edge looks reddish yellow and inflamed, bleeds slightly, and is gradually yielding to the extension of the ulcerative process. His appetite is bad, and he sleeps indifferently, but his bowels are regular.

The individual, the subject of our present consideration, has been under the influence of an inveterate and intractable infirmity ever since the inoculation of his system, five years ago, with the infection of syphilis. I say, ever since his system became contaminated with the poison of syphilis, he has remained a victim to its baneful manifestations, first in its primary or local form, next in its secondary, and now in its tertiary state, rendering his existence miserable and burdensome, and producing that debility and constitutional depravity, which his dejected look and cachectic aspect but too vividly portray. The appearance of the sore, which has been described to you in the report of the case, is exceedingly characteristic of the specific disease producing it. It has been called, and, I think, properly so called, a "tertiary" sore; but I have no doubt that many would place it under the category of secondary syphilis, for there is much confusion and uncertainty in the use of these terms. If I might be allowed to express my own opinion on the subject, I would give the following definition of the three stages or forms of syphilis:—Primary symptoms—the chancre or local affection; secondary syphilis—the sore throat and the various cutaneous eruptions; and tertiary—the ulcers and sores which succeed the eruptions, and, like them, are the result of the constitutional manifestation of the disease.

The diagnosis of a primary syphilitic sore or chancre is sometimes exceedingly difficult; in fact, taking the physical characters of the ulcer alone, it is frequently impossible to distinguish it from one of a non-specific nature,—frequently out of the surgeon's power to say with decision and confidence, this is venereal, or that is not. If then, gentlemen, we can go into our wards, and in one patient pronounce with certainty, and without the least hesitation, his sore to be specific; and in another, be unable to give a decided opinion either way, or to point out any definite characters why it should or should not be considered venereal,—I say, if such be the case, the appearances that primary sores assume must be very varied and indefinite, and as yet latent to our discriminating powers; and so they are. What, then, does this variety, this difference in external appearance, result from? Does it depend on a variety of the syphilitic poison itself? No. There is but one true poison of syphilis, which poison produces different effects, depending on the nature of the tissue affected, and on the peculiarity of the constitution; and I believe, that all the different effects, and all the varieties of sores, depend on one and the same morbific cause, the action of which is modified by the particular state or disposition of the individual in which the symptoms are developed. From this it is that syphilis, notwithstanding the attention that has been devoted to it, by so many distinguished and able men, yet remains one of the most obscure and difficult subjects that the surgeon has to encounter.

With regard to the treatment of primary symptoms we possess, happily, a remedial agent—mercury, which might be considered to have almost a specific influence over the disease, and I believe that syphilis cannot be thoroughly eradicated from the system by any other medicine, after absorption has taken place and it has become a constitutional affection. If, however, you have a patient come to you within four days after the appearance of a chancre,—that is, before the syphilitic poison has had time to become absorbed, and implanted in the system, no matter if the sore be of the callous or true Hunterian description, or however ambiguous its characters, by the application of concentrated nitric acid you would effectually decompose or destroy, and render inert the specific poison. By these means, and these means alone, I feel confident you would extirpate the disease, and at once cut short its further progress. I have now had several cases, in which I have adopted this treatment; and, as far as I know and have a right to believe, in each it was attended with success. Four of the patients I have seen since, and I know they have had no re-appearance of the disease; whilst the others I have lost sight of, but have no doubt should have heard of them again had it not proved successful.

After the venereal poison has had time to become absorbed, and to be diffused through the system, the surgeon has two objects in view; one to procure a resolution of the local inflammatory action, and promote the healing of the sore: the other to subdue and annihilate the disease in the system, and prevent its recurrence under a secondary form. This, I think, is most effectually, I may say only effectually and securely, to be accomplished by treating the chancre through the constitution alone, and submitting the patient to a course of mercury, employed with caution and discretion. I do not mean, however, to deny, that a syphilitic sore—a genuine chancre—will subside and heal up under other, and under even simply local treatment. I say, I not only do not dispute it, but am convinced of its truth. But, at the same time, I do not consider the disease eradicated, nor do I consider the patient secure from the development of secondary or tertiary symptoms. The healing of a chancre, by the application of local means, is no proof of the constitutional subsidence of the disease. If, then, a chancre will heal under the influence of topical agents whilst the disease still exists in the system, we have it explained how it is that secondary symptoms afterwards appear, although mercury has been given in the treatment of the primary disease;

for local remedies are almost always at the same time conjoined. It is here lies the secret, in ensuring security to your patient from a recurrence of the disorder, and a solution of the difficulty experienced in determining when an efficient quantity of this powerful but invaluable medicine has been exhibited, to attain the object in view, and in knowing when to stop with safety and security from all further or future appearance of symptoms. I therefore depend solely on the constitutional employment of mercury, and object to the use of blackwash and similar applications, which are in themselves capable of removing the sore, and thus destroy the index which its appearance forms when its reparation is effected, only as a result of the constitutional eradication of the disease. The healing of the sore under these indications is an evidence that the system has been sufficiently mercurialised, and that its use may now be confidently abandoned. Acting under this principle and conviction, the plan I in almost all cases pursue, is to apply a simple piece of moist linen—not lint, for I have seen it (whether from the chlorine used in bleaching it, or what, I do not know) excite such irritation round a chancre, as almost to produce balanitis, which all quickly subsided on the use of linen instead of lint to the sore, and administer internally gr. v. of blue bill with ¼ gr. of opium at bedtime, and v. gr. of blue pill alone in the morning; directing these pills to be put up separately, and labelled respectively "night" and "morning" pills. I tell the patient, if his bowels become constipated, to take only the "morning" pills both night and morning; if, on the contrary, relaxed, to take only the night pills. With this variation in treatment, according to the circumstances of the case, I continue the mercury until the sore has disappeared, and the hardness of its base subsided. I learned this treatment from my uncle, Sir Astley Cooper, and have adopted it in almost every case that has come before me during the last thirty years; and I have never yet once got into a difficulty with it, from the reappearance of the disease under secondary symptoms. Trust to mercury, Gentlemen, but give it cautiously, give it judiciously, watching your patient during its administration, and seeing that he avoid all possible exposure to cold, and if possible keep him within doors. The remedy itself is a poison, and, if improperly employed, might inflict as much or more injury on the patient than the disease it was intended to cure.

Secondary symptoms are manifested in various morbid phenomena of different parts, more especially of the skin, mucous membranes, and bones. Affections of the latter, I believe, are not the result of syphilis alone, as a specific disease, but of its action, modified by the influence of mercury, which, as far as I can learn, in such cases has always been previously administered; and I consider syphilis of itself, I will not go so far as to say incapable, but certainly not as yet proved to have the power of producing such direful morbid conditions of the osseous system. I have had an opportunity of witnessing cases of syphilis, that have proceeded for a long time uninfluenced by any remedial agent, in sailors engaged in the merchant service, who, having contracted the disease, have gone to sea, where they have remained for some months in a vessel with no surgeon on board. In these cases the disease has gone on as an ulcerative process; the chancre has spread, there has been ulceration of the groin inside the thighs, and over the pubes, but not an indication of the affection of the bones.

With regard to the treatment of secondary syphilis, the iodide of potassium is the remedy held in most repute, and the one that in general produces the most immediate beneficial and successful results. But, according to my experience, iodide of potassium and iodine, although they have the power of arresting or suspending the disease *pro tem.*, are incapable of eradicating or eliminating it *in toto* from the system, and securing the individual from subsequent attacks. Sir Astley used almost invariably to prescribe the bichloride of mercury, in doses of 1-16 gr., taken in bark or sarsaparilla, two or three times a day; and I myself prefer and recommend mercury to be given. It is true, its remedial effects are not so speedy as those of iodide of potassium; but this is more than compensated for by their being of a more permanent character. Cases sometimes occur where iodide of potassium has been administered for some time, and the further continuance of its use increases instead of diminishes the symptoms it was intended to relieve. In such instances, I have sometimes seen the most marked effects accrue from small doses of arsenic, especially when combined with mercury and iodine, in the form of the liquor arsenici et hydrargyri hydriodatis, or Donnovan's solution.

In the case of the man whose history I have read to you, it is clear, that he has never got rid of the disease since he first became the subject of it, and that the mercurial treatment he was submitted to for the primary symptoms was abandoned before they had thoroughly yielded. Since then he has been iodised and mercurialised repeatedly, but all with no ultimate benefit, for the disease is still deeply rooted in his system, and, as a result of it, he presents us with an extensive sore on the calf of his right leg. Had he been a strong man, or a man with any constitutional vigour, I should have felt inclined to have given him mercury, confining him to the ward, and adopting every precaution; but his system being so depraved and weak, I ordered him:

℞ Iodinii, gr. ss., potassii iodidi, ʒss,, syrupi papaveris, ʒss, infusi gentianæ co., ʒx.; misce. ut fiat mistura, cujus sumantur, cochl. ij. magna ter die cum.; morphiæ acet. gr. ss. omni nocte.

I pursued this for a few weeks, and at the same time enjoined perfect rest in bed, but found little or no improvement in the sore; which, as is the character of the specific kind, healed in one part, but extended itself in another. At the same time, a number of tubercles appeared over his head and face, which are anything but a favourable indication of the condition of his system. Tubercles and blotches—the difference between the two being, that the former are elevated, but the latter even with the surface of the skin—may depend on other causes than syphilis; but, as a result of this disease, they are always unmistakable from their coppery hue, their smutty or dirty appearance; the skin in fact conveying the impression of its wanting to be washed. It might be asked, Why is it, if the whole system be impregnated alike with a poison which is circulating in it, that we do not have a universal eruption or sore, for it follows that all parts of the body must be equally under its influence? I do not see that this can be explained otherwise than by saying, that it must arise from some weakness or exciting cause in the part affected, which does not exist elsewhere. Seeing that he made no progress under the influence of the medicines prescribed, I altered them, and gave him:

℞ Liq. hydriodatis arsenici et hydr., ʒjs.; extracti sarsæ, ʒj.; dec. sarsæ co., ʒviij.; cochl., ij., amp. ter die sum.; pulv. opii. gr. ss. omni nocte; and since then, I must say, he has been slightly improving. The sore has a more healthy appearance, and does not seem extending, and the tubercles on his face are apparently subsiding and dying away. But I am not sanguine of his speedy recovery, and know that it must be a work of time before it can be effected, if ever he gets well again.

In concluding these remarks on syphilis, I may observe, that in sloughing phagedæna, mercury has the effect of aggravating rather than mitigating the symptoms, and is consequently decidedly prejudicial, the remedies are, the topical application of nitric acid, and the internal administration of opium. Nitric acid not only destroys the parts in contact with it, but, at the same time, induces a more healthy action in those beneath.

The next case I shall proceed with, is that of C. C., aged 30, who was admitted October 30th, 1850; lies at No. 10, Luke ward, and is the subject of

FISTULA IN ANO.

He is a Scotchman, unmarried, and occupied as a hatter, has an emaciated, sallow, and phthisical appearance, and says that he has been of steady and regular habits, and has enjoyed good health, until a year ago, when he caught a violent cold, which, on subsiding, left him a cough, from which he has been suffering, more or less, ever since. During this time, also, he has become wasted and thin; and nine weeks ago, whilst coughing, spat up a little blood, and about a month afterwards, a little more, but none since then. Has had no diarrhœa and no unusual sweating, either at night or during the day. Five months since, he became troubled with piles, and three months afterwards there appeared a swelling round the anus—but more especially on the left side of it—accompanied with a dull, aching, deep-seated pain, and some amount of febrile excitement. Having applied some leeches to the swollen and affected part, in a few days it burst, discharged a quantity of matter, and has continued to discharge slightly ever since. Behind, and rather to the left side of the anus,

about an inch away from it, is a small (so small as to escape the eye, unless attentive examination be made) fistulous opening, which conducts to a fissure that takes a course just upwards and inwards, and then upwards by the side of the rectum, through which it does not appear to perforate. His bowels are regular; passes no fæces through the fistulous opening, has no appreciable pain in passing a motion, but cannot sit easy on the left buttock. His chest, on examination, indicates what his aspect and history but too definitely portray—the existence of serious and important phthisical mischief. Thus, there is deficient elevation on the left side during deep inspiration, and tubular breathing, with dullness on percussion, in the infra-clavicular region; also posteriorly in the left scapular region, pectoriloquy decreasing from above downwards, tubular breathing and dulness on percussion. October 31st was ordered:—

℞ Quinæ disulphatis, gr. vi.; acidi sulphurici dil., ʒi.; syrupi papaveris, ʒiii.; aqua ad ʒviii. M. Capeat co. ii. mag. bis die.

℞ Extracti Conii, gr. ii.; extracti hyoscyami, gr. iii.; pulveris ipecac. co., gr. i. M. ut fiat pilula nocte maneque sum.

In this case, gentlemen, we have a good illustrative instance of fistula in ano, inasmuch as it occurs in a phthisical subject; and it is an exceedingly common occurrence to meet with such an affection, concomitant with a diseased condition either of the lungs or liver, or of both; and it also affords us an example where surgery must hold its hand, and an operation be deferred. In my first lecture, I told you, that in some cases—as in hæmorrhage from a large vessel, or in strangulated hernia—the operation required to be performed immediately; but that, in other instances, delay might be proper, or even requisite, as it is in the case before us. Were I to operate on this man in his present weak and cachectic condition, I have not the slightest doubt but that it would either produce so much general irritation or excitement as materially to hasten the progress of his existing pulmonary disease, and bring it rapidly to a fatal termination; or else, from his low vital power, the wound occasioned by the operation would remain irreparable, nature not being competent to produce adhesion of the divided parts. No. I shall endeavour to allay irritation by the administration of sedatives, and to improve his general health by tonics, and, when this is sufficiently established, shall then operate. But I fear his phthisical disease has gained too great an ascendancy to hold out much hope for this period ever to arrive. In some instances, it is difficult to delay or desist from the performance of an operation, from a natural inclination that one has to be doing something. I say, it sometimes requires even a considerable amount of moral courage to yield to time, and do nothing. A case which occurred to myself, in private practice, bears so much on this point, that, although not a clinical one, yet I think it would be instructive to mention it, as illustrative of these remarks. A few weeks since, I was sent for, a short distance out of town, to see a young gentleman, who had, thirty hours previously to my arrival, received a gun-shot wound in his left hand. He had been endeavouring to load a pistol with a ball which he had been previously cutting a little smaller with a knife, and while in the act of forcing it into the barrel, the pistol went off and discharged the ball into the palm of the left hand, close to the muscular part of the thumb. At first there was considerable hæmorrhage, but this had ceased by the time I got there. When I saw him there was great tumefaction; the skin round the wound was much blackened from the powder. There was no wheal discoverable, and no counter aperture for the exit of the ball. On passing a probe into the wound, it took a direction towards the carpal bones, and, feeling something hard and uneven, I was left in doubt whether it was the os trapezium or the ball, which, as I have said, had been cut and made irregular with a knife. The next point of consideration was, what was to be done, or was anything to be done; that is, was I justified in searching for the ball in such a sensitive part as the hand? or would the object in view, even if successful, sufficiently counterbalance the irritation and excitement necessarily produced? I think not; I therefore determined to do nothing but keep the patient at rest, and quiet his system by the administration of hydrarg. cum cretâ and Dover's powder. But I must say, I felt some little reluctance in so doing, and it seemed also to create dissatisfaction in the minds of the friends. However, the lad is now going on well, and has never had a bad symptom; which I think would not have been the case had I acted otherwise and have searched for the ball.

It is stated in the report of the case that I have drawn your attention to, that the fistula does not appear to perforate the rectum. This may be correct, but, if so, is an extremely rare occurrence; and it is pathologically probable, that there is a communication, although it was not discoverable with a probe; for in nearly every instance does the disease begin in the rectum and proceed downwards, arising from some disordered state of that viscus, or perhaps of the viscera above; and when an abscess has once formed in connexion with the rectum, the parts around are kept in a constant state of irritation from the escape of gas or fæces. I repeat, it is an extremely rare circumstance for an abscess to arise externally to the bowel, and ulcerate through it, although I do not deny that this may, and does sometimes happen. Surgeons usually, in these cases of fistula in ano, search about with a probe, and endeavour to find the communication with the rectum, or to ascertain the extent of the fissure. To me, however, this is a matter of very little importance and consideration; for, whether the fistula does or does not communicate with the gut, or whatever its extent, the treatment or course to be adopted is the same, namely, to divide the fibres of the sphincter ani muscle, and thus allow the parts, which were previously under the constant influence of muscular action, to remain as much at rest as possible.

The operation itself is a very simple one, and only requires the exercise of a little moderate care and attention. I usually place the patient on his hands and knees in bed, or else kneeling across the back of a chair, so as to obtain a full view and exposure of the affected part; then passing a director through the fistula as far as the bowel, and along this a probe-pointed bistoury, I withdraw the director, and take hold of the bistoury with either the right or the left hand, according to the side of the anus on which I am operating; next, introducing the index finger of the other hand into the rectum, and feeling for the point of the bistoury, I press the two together, and in that position withdraw them, cutting through rectum, sphincter, and all the intermediate parts. It is not requisite or necessary to pass the bistoury to the extreme extent of the fistula; on the contrary, the division of the sphincter fibres is sufficient to promote the healing of the whole fistula. And, again, whatever number of fistulæ there may be, the operation on one will effect the cure of all. I have just one or two more remarks to make, in completing this subject, which are of much importance, in ensuring a successful result from the operation The division of the sphincter should be in a direction traight across it, and not too much towards the os coccygis, or some of the fibres will remain undivided and the operation incomplete. And in the female, the division must not be directed towards the vagina, or the opposed surfaces of the wound will be constantly subjected to the action of the muscular apparatus of this organ, and will not unite or heal. Should you ever meet with a fistula between the vagina and the rectum, I, by all means, recommend you to leave it alone; for, if you operate on it, the wound you occasion will never heal, and your patient for ever afterwards be unable to retain her fæces. If you like, however, to make an incision, and divide the sphincter ani away from the fistula, I think you may, in some cases, be successful in effecting a cure, by removing the exciting influence of this muscle. At all events it is worth a trial. The next case, Gentlemen, with which I shall complete my lecture, and which will occupy us but a short time, is that of a

SUPERFICIAL ABSCESS OVER THE KNEE-JOINT.

Catharine M'Carty, aged 25, admitted into Guy's Hospital October 23, 1850. A married woman, of a spare habit and sickly appearance, states, that three months since she had a miscarriage, attended with considerable hæmorrhage, which left her very weak and debilitated. Two months ago she tumbled down and received a severe bruise, accompanied with an abrasion of the skin of the left knee, just below the patella. A fortnight afterwards the knee became painful and much swollen, and, from that time up to the present, there has been a gradual aggravation of these symptoms, attended also with a considerable amount of constitutional disturbance. On her admission, the left knee presented a large fluctuating swelling extending over the anterior aspect,

with increased heat, redness, sensitiveness to the touch, and so tense and painful as to prevent flexion of the joint and the use of the limb.

There is nothing, Gentlemen, to excite much interest in this case, which has turned out to be one of great simplicity, excepting that at first there was some obscurity and difficulty in arriving at a correct diagnosis or prognosis; in other words, some difficulty in determining whether the abscess was external to or in connexion with the joint,—a fact which would make all the difference in her ultimate recovery. I ordered her to remain at rest in bed, to take a little saline effervescing medicine, with tincture of hyoscyamus, and to apply poultices of linseed-meal to the affected knee. The next day the abscess was opened, and discharged a large quantity of pus. I then ordered her quinine, with dilute sulphuric acid, and her symptoms quickly subsided, leaving the function of the joint unimpaired; so that I have no hesitation now in saying, that it was merely a superficial abscess, which probably resulted from the effect of the fall on an impaired and debilitated system. Time will not allow me to dwell longer on this case; and were I so inclined, I do not know that I could advantageously say more about it.

LECTURES ON HISTOLOGY.

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS, LONDON.

By J. T. QUEKETT, Esq.,

Assistant-Conservator of the Hunterian Museum.

(Continued from page 2.)

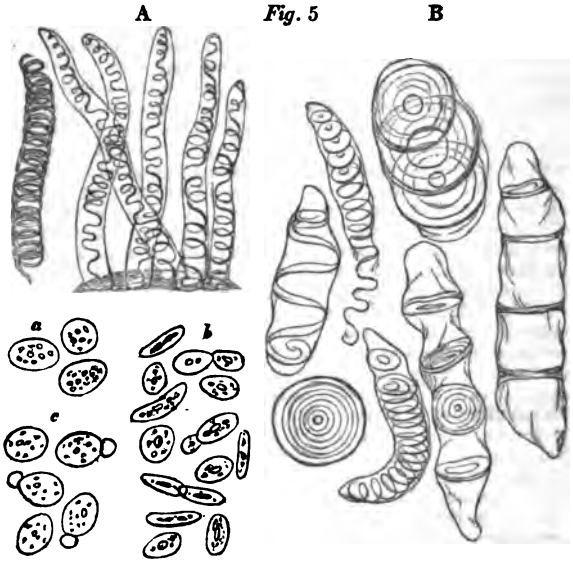
FIBRE.

Fibre, although at one time regarded as an element of vegetable tissues, is now generally looked upon as a secondary formation deposited within the walls of cells, or, in other words, on the internal surface of membrane. It is solid, sometimes transparent, and generally speaking of a greenish white colour, though in some few plants, as in the elaters of *Jungermannia*, it is more or less red. Its direction, as shown in *Fig.* 5, A B, is most frequently spiral, the spires running from right to left; in some plants, however, the direction is from left to right. According to Lindley, it is straight in the lining of the anther of *Campanula* and *Digitalis purpurea*. Fibre varies considerably in size; in some plants it exceeds 1-3000th of an inch in diameter, in others, it surpasses in delicacy the finest hair; it generally adheres very firmly to the sides of the cell-wall, especially in the young state, when the turns of the spiral are very close together, but as the cell elongates, the fibre sometimes keeps pace with it, and the turns are more widely separated. Two or more contiguous turns are very prone to anastomose, and it is in this way that all the peculiar markings found in cells are formed, such as the rings, dots, and reticulations hereafter to be described. When the spiral cells are fully developed, as shown in *Fig* 4, E, the fibre will separate from the membrane of the cell-wall, and its elasticity is such, that it ever tends to unroll itself, and in old elongated cells or vessels, it frequently ruptures the membrane, and becomes more or less straight. In this way the fibre may be obtained in an isolated condition.

The bulbs of many of the lily tribe, as in this specimen of squill from the Mediterranean, contain spiral vessels in such abundance, that the entire series of laminæ of which they consist, would seem to be composed of spiral fibres. These are obtained in such numbers in some bulbs, that they are collected, bound into bundles, and used as a kind of slow match for lighting pipes and cigars. The elasticity of spiral fibre is very beautifully shown by removing a minute portion of the testa of the seeds of many plants, as the *Collomia grandiflora*, purple-topped Clary, &c. When this is moistened in water, cells that were so closely adherent together as not to be distinguished, become soft, the spiral fibre being thus released, as it were, from its close captivity, uncoils itself and pushes the cell-wall before it, and what was at first a brown shapeless object, becomes a mass of beautiful spiral cells. A few of the cells from the *Collomia* are represented in *Fig.* 5 A.

Fibre, like membrane, is frequently increased in thickness by continuous deposits, so that the spiral thread may become a flattened band or even a ring, like a quoit, as shown in *Fig.* 5, B, from a *Cactus*, in which may be seen cells with fibres in various stages of development; some of them exhibit thickened fibres; others have the fibre converted into a flattened band; whilst in others may be seen the ring-shaped bodies, in which are evidences of concentric deposit.

A *Fig.* 5 B



Having now directed your attention to the principal points of interest connected with membrane and fibre, I shall proceed to speak of the disposition of the former in all the varieties of plants. In my first demonstration, I stated that the most simple plants are composed of cells or utricles, and that all others, however complicated in structure, are made up of a series of such cells, variously modified by pressure, and arranged according to the conditions under which they are developed and the functions they have to perform. Within the transparent membrane of which the young cell alone consists, there is in the growing cell a thin delicate lining, termed the primordial utricle of Mohl; within this is a nucleus or cytoblast, and this again contains smaller cells or nucleoli. The typical form of cell is either spherical or oval; but by pressure in growth they assume almost every variety of shape, and their walls become thickened either uniformly or partially. In the most lowly organized plants, as in some of the Algæ and Fungi, the cells maintain their original form throughout life; but in the majority of instances, as has been already stated, they undergo much alteration in shape. The following are the chief forms found in different plants, which have been specially named by botanists; the oblong, lobed, square, prismatic, cylindrical, fusiform, muriform, sinuous, stellate, filamentous, &c.

In pulpy fruits, such as the strawberry when ripe, the cells may be readily separated from each other, and obtained in an isolated condition; and many of them, as in the lemon, will be found to be upwards of half an inch in length; in the shaddock they are much larger; but in many other fruits and parts of plants, the agency of maceration or of boiling water must be resorted to for their separation.

I will now exhibit a few examples of the typical form of

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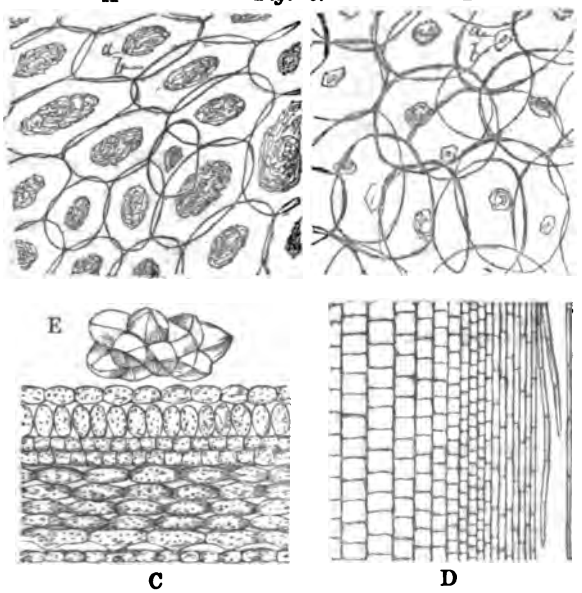
cells; and perhaps one of the most striking, and at the same time most interesting to us as medical men, is the *Torula cerevisiæ*, or yeast-plant, shown in *Fig.* 5 *a*, *c*. It consists of a series of nucleated cells of an oval figure, some of which have a smaller cell adherent to one extremity: by some persons, these are regarded as spores; by others, as distinct plants; they are always found in fermented liquors, the process of fermentation, according to most authorities, being nothing more than a rapid generation and growth of these plants. Another species of *Torula* is found in the urine of diabetic patients as soon as fermentation commences; hence it has been named *T. diabetica*. I am sorry, however, that I cannot show you a specimen at this time, but an opportunity of doing so, I have no doubt, will occur before long. For the sake of comparison with those of *T. cerevisiæ*, a few of these cells are represented in *Fig.* 5 *b*; they are much smaller, and more oval in shape, and are beginning to be arranged in a linear series. This is always found to be the case, both in new beer and in urine, if kept for some few days; and this has led botanists to suppose that the single cells are only the spores, and that the true plant, in both instances, consists of branched moniliform filaments.

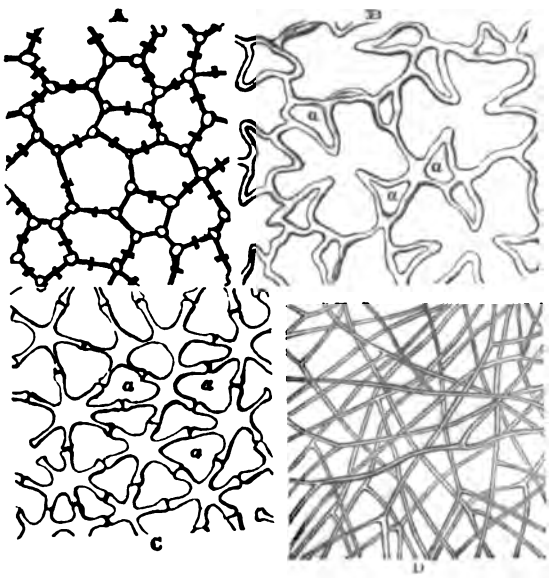
In this specimen *Fig.* 6 A from the ripe *strawberry*, you have an example of larger cells of an oval figure, some of which contain a brownish nucleus *a*, *b*; and in this, from the flowering stem of the *Leek*, represented in *Fig.* 6 B, the nucleus *a*, and nucleolus *b*, are plainly seen, although the cells cannot be so readily separated from each other.

Fig. 6.



It would, I fear, occupy too much time to exhibit to you each of the varieties enumerated above; but, in this section of the leaf of a *Balsam*, *Fig.* 6 C, and in the mass of cells E, most of the forms may be distinguished, more especially the square, the oblong, and the lobed; and in this specimen, from the *Gourd*, represented by *Fig.* 6 D, you will notice, that cells more or less cubical may become prismatic, or even be so much compressed towards one edge as to assume the appearance of fibres. There are, however, some of the varieties which demand a more particular description. Of these, the first is the *stellate* form; in the stems of many water-plants, such as rushes, and especially the petiole of the sweet burr-reed, (*Sparganium ramosum*,) when young, there are strata of hexagonal cells which form septa; these, as shown in *Fig.* 7 A, have around their margins certain notches, which, with those in adjacent cells, form triangular apertures, known to botanists as *lacunæ*; in process of growth these notches become deeper and deeper, the lacunæ, *aa*, enlarging at the expense of the area of the cell-wall, which gradually assumes more and more the appearance of a star, as shown in *Fig.* 7 B. In the rush we have a very beautiful example of this form of tissue, the cell being reduced to a six-rayed star, as shown in *Fig.* 7 C, but the remains of the cell-wall, as indicated by the black lines, *a a*, are always present. By this alteration in the shape of the cells, the stem becomes light, and large receptacles for air, common in most water plants, are thereby formed.

Fig. 7.



Very striking specimens of the filamentous form of tissue are obtained from many of the fungi, as the common edible *Mushroom*, in which the cells are of a long oval figure, and joined end to end; but in a large *Boletus* they are so greatly compressed and elongated as completely to assume the appearance of fibres, and many of them, as shown in *Fig.* 7 D, will be seen to bifurcate; but still a transverse line, indicating the cell-wall, is occasionally visible.

Another variety of cell arrangement is known as the muriform, from its resemblance to that of bricks in a wall; it is found in the medullary rays of certain woods, and gives to them the peculiar appearance known as the silver grain; such cells are readily seen in the coniferæ, and in this specimen from the common yew.

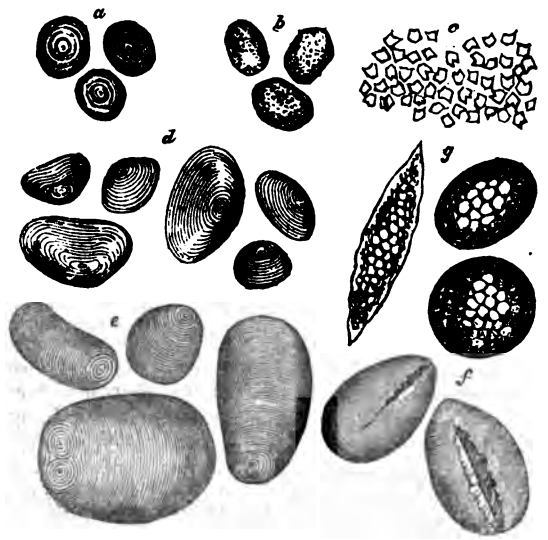
Other forms, especially the sinuous, occur in the cuticle of most plants; the cylindrical, however, is best seen in the *Characeæ*, and you will have an opportunity of viewing it at a subsequent period, when I come to speak of green colouring matter or chlorophylle, and the phenomenon of cyclosis.

Dismissing now the subject of the form and structure of cells, we will proceed to consider, in the next place, the nature of their contents; these are colouring matter, starch, oil, raphides, silica, &c. I have already stated, that the beautiful variety of colours seen in the corollæ of flowers is dependent not upon the membrane composing the cells, but upon colouring matters, mostly of a fluid nature, contained within them; and I, at the same time, illustrated this, by exhibiting a portion of the cuticle of the garden rhubarb, in which you saw cells full of a red colouring fluid occurring singly amongst others more or less green or white. I now show you a portion of the corolla of a geranium, most of the cells of which are full of crimson fluid, which imparts to this favourite flower its rich hue. In the case of the ferns before alluded to, the brown colour was dependent on that of the cell-wall and not on its contents. In old cells of palms and certain coniferæ, resinous matter of rich colour is often met with; this, however, is solid, and is very remarkable in the palm yielding the material known as dragon's blood. The green colour, so universally present in plants, is due to a more or less solid material, contained in cells and termed chlorophylle, or green vegetable wax; it consists of minute spherical or oval particles, but as these have certain properties in common with starch, they will be more particularly described with that substance.

Starch, which performs a similar office in the economy of plants to that of fat in animals, is a most important ingredient in the aliment of the whole human race, and two-thirds of mankind subsist almost exclusively upon it; its existence was known to the ancients. Leeuwenhoek first examined it microscopically in wheat and beans, and as you

may see has given tolerably accurate representations of the granules in the second volume of his works. Starch is found in the cells of plants in the form of granules, as seen in *Fig.* 8 *g* from the rhubarb, the cells of which have been separated by maceration; also in this section of a potato. It is usually obtained by rupturing the cell-walls and washing out their contents with cold water; when dry it is hard, and if rubbed between the fingers a peculiar crackling sound is produced. Starch is capable of being diffused through cold water, but is easily soluble (diffusible) in boiling water, acids, and alkalies; in this section of boiled potato the starch has disappeared; in alcohol, ether, volatile, or fixed oils, however, it is quite insoluble. When examined microscopically it is found to consist of more or less oval granules of various sizes, having definite and peculiar characters in different plants; thus in the *Tous les mois*, *Fig.* 8 *e*, they are of very large size; in the potato, *Fig.* 8 *d*, they are much smaller; and in the rice, *Fig.* 8 *c*, are so very minute as to require a power of 250 diameters to discover them.

Fig. 8.



Each granule has at one extremity a circular spot, termed *hilum*, around which are a large number of curved lines, passing at first in circles concentrically around the hilum, and subsequently in curves; these markings are not, as has been imagined, the result of consecutive deposits, nor indications of increments of growth of the granule itself, but they are confined to the cell-wall, and are most probably mere transverse puckerings or rugæ in the membrane, of which, together with its amylaceous contents, the starch granule consists. If sulphuric acid be added, and heat be gradually applied to starch, the granules swell to three or four times their ordinary size, and the distended cell-walls lose all trace of the markings which previously existed. When starch is boiled in water the cell membrane swells and bursts; the first stage of which is shown in *Fig.* 8 *f*, and the amylaceous matter becomes intimately mixed or dissolved in the fluid.

The presence of starch, in however minute quantities, can be immediately recognised by the addition of free iodine, which forms with it the iodide of starch, a compound of a beautiful blue colour;—this test was discovered by Jurine. A little tincture of iodine added to the grains of starch in this section of a potato will make each granule blue, but will not so colour the vegetable cells in which these granules are stored up. If I boil a small quantity of starch, and pour it into a vessel of cold water, the addition of a few drops of tinct. iodine will give the water a rich blue colour; if a little of this water be examined under the microscope, the colour will be seen only in the remains of the granule-membrane; and if the water be allowed to stand, all the colouring matter will be found at the bottom of the vessel as a precipitate, showing that all parts of the starch grain are of greater specific gravity than water.

I have stated that the starch grains have definite and peculiar characters in different plants; and as starch, under certain names, such as *Tous les mois*, tapioca, sago, arrow-root, &c., is largely used by invalids and children, it becomes of importance for us, as medical men, to be able to detect frauds which are frequently practised in these articles. In *Fig.* 8, *a*, *b*, *c*, *d*, *e*, &c., you have representations of the principal varieties of starch, all of which are drawn to a fixed scale, and they therefore bear their proper shape and proportions; and it will be readily seen that by means of the microscope, any mixture of two or more of them, or of other varieties with them could be easily detected. This was strikingly exemplified, some years since, in a case which our celebrated chemist, Dr. Ure, was employed to investigate. This was an attempt to import the starch of the Cassava, which bears a duty, as arrowroot, upon which there is no duty; by which means the revenue would have been defrauded to some considerable amount. The difference between the two starches was not sufficiently obvious to the naked eye; but by means of the microscope, and a knowledge of the nature of the grains, the Doctor was enabled to detect the imposition.

Could it be proved that a direct relation exists between the size of the starch granules and their nutritive quality, we should, of course, possess a ready method of determining such quality in any given specimen; and, on this principle, *Tous les mois* must be considered as much more nutritious than the potato, and the potato than the rice starch.

Starch, moreover, possesses the property of polarizing light; and in this specimen of *Tous les mois* you will see in each grain a black cross surrounded by coloured rings, and, if the analysing prism be revolved, a white cross, with complemental colours of less intensity, may be noticed.

LECTURES

ON

BLOOD DISEASES.

By HENRY ANCELL, Esq.

ON TUBERCULOSIS,

REGARDED AS A DISEASE OF THE BLOOD, AND THE ORIGIN OF SCROFULA, CONSUMPTION, TUBERCULAR MENINGITIS, MESENTERIC DECLINE, AND OTHER FORMS OF DISEASE DEPENDING UPON THE LOCAL MANIFESTATION OF ITS PATHOLOGICAL PRODUCTS.

(Continued from last Volume, page 616.)

LECTURE XII.

The Pathological Anatomy of the Serous Membranes in Tuberculosis concluded.—The Pathological Anatomy of the Peritoneum; Chronic and Acute Inflammation; Effusions; Adhesions; Ulceration; the Deposit of Tubercle; Tubercle in False Membranes.—Pathology of the Peritoneum in Tuberculous Children; Comparative Frequency of the Different Varieties of Tubercle in the Peritoneum of Children.

OF THE PERITONEUM.

The affections of the peritoneum in tuberculous subjects are closely analogous to those of the pleura. We meet with the anatomical results of simple chronic inflammation, and of acute inflammation, either with or without the deposit of tubercle. We also meet with the deposit of tubercle, which, in its maximum degree, has been denominated peritoneal phthisis, and with all the consequences of this deposit passing through its several phases and acting as a foreign substance upon the serous membrane. Hence there are several distinct forms or varieties of tuberculosis arising from the localization of disease in the peritoneum.

Chronic peritonitis frequently occurs in tuberculous subjects, as does chronic pleuritis, independently of the existence of tubercles; bands of adhesion constituting its especial anatomical element. When limited to the diaphragmatic surface these cellular adhesions present characters similar to those of pleural adhesions. When seated among the convolutions of the intestines their folds become adherent. Serous effusion is also one of its most common results, the effusion presenting all the characters already described. Those portions of the peritoneum which invest the liver and the spleen in many cases become implicated with the pleura in tuberculous pleuritis; but in a minor degree, producing little other effect than adhesion. In a

case of chronic peritonitis in a tuberculous subject, resembling the cases described by Sir H. Marsh and Dr. Churchill, I once removed at least two gallons of pus from the peritoneal cavity. These cases of an undoubtedly tuberculous or scrofulous nature, although by no means necessarily fatal, occasionally prove so without the deposit of a single tubercle in the lungs.

Acute peritonitis is also a very common affection in tuberculous subjects; for the most part it occurs consequently to the deposit of tubercle, but sometimes independently. Like acute pleuritis, it sometimes sets in a few days before the fatal termination of extreme tuberculosis, supervening or not on chronic peritonitis. It sometimes, also, by one or other of its pathological consequences, cuts short tuberculosis before this disease has produced its extreme effect on the vital tissues and exhausted the vital powers of the system.

Chronic peritonitis becoming more or less acute, has frequently also a great share in hastening the termination of tuberculosis; where it exists the disease sometimes runs its career very rapidly—in one of Louis's recorded cases in 44 days. It may coincide with chronic pleuritis, and it is much more frequent in tuberculous than in non-tuberculous subjects, independent of the deposit of tubercle and of intestinal ulceration.

Baillie was one of the earliest to describe the deposit of tubercle in the peritoneum. He states, that he several times had opportunities of observing a white, soft, granulated matter adhering universally behind this membrane; in some places it formed a mass of considerable thickness; in others it was scattered in single small masses; in one place it formed a substance as thick as the hand deposited between the peritoneum and the abdominal muscles, while it was scattered in small separate portions in the mesentery and the peritoneum covering the intestinal canal; the omentum was sometimes charged with a cell-like substance; the matter exactly resembled the structure of a tuberculous absorbent gland before pus is formed.(a)

Carswell observes that the grey semi-transparent substance is generally more abundant than pale yellow opaque matter, and a nucleus of the latter is frequently enclosed in a considerable quantity of the former, hence the deposit of this grey matter certainly precedes the formation of yellow matter.

The deposit sometimes takes place primarily in the peritoneum, this membrane being the first part, and, in rare cases, the only part attacked. It leads, for the most part, to deposit in the external glands, (Rokitanski;) and, in the female sex, to tuberculisation of the uterine and vaginal mucous membrane. Tubercle of the peritoneum, particularly the granulated variety, rarely passes into the stage of softening, and still more rarely into that of cretification. It frequently becomes stationary. In three cases of children Rilliet and Barthez found the peritoneum tuberculous to a great extent no other organ containing more than an inconsiderable quantity.

But tubercle in this, as in the other serous membranes, occurs much more frequently after it has been deposited in another part. Hence it is associated with pulmonary, intestinal, and cerebral tubercle. Acute peritoneal tuberculosis, with deposit of tubercle, is usually complicated with a corresponding affection of the spleen, the liver, and the kidneys.

It is frequently circumscribed, and limited to parts which correspond with tuberculous ulcers of the mucous membrane. In this case the deposit does not take place until the tuberculous infiltration has extended from the inner surface of the intestinal canal through the muscular coat to the peritoneum itself; the membrane becomes injected and covered with purulent exudation in the part corresponding with the deeply ulcerated mucous membrane. Sometimes this inflammation extends to another portion of peritoneum belonging to a knot of intestine lying in contact with the ulcerated one; adhesion may form between the two parts, and, if the ulcer should perforate, the adhesions form a barrier to circumscribe the effusion.

Adhesions may occur in any part where tubercle is deposited, agglutinating the viscera together. Louis found partial and general adhesions of old standing the result of previous chronic peritonitis.

The muscles become affected in the neighbourhood of tuberculous deposit in the peritoneum in a greater degree than in ordinary peritonitis. In the intestinal coats they are pale and friable, easily lacerated and broken up, and the abdominal muscles waste and lose colour.

The occurrence of tubercle in false membrane, as described by Louis and Rokitanski, is most interesting and important. In one case a great number of semi-transparent miliary granulations were met with in the substance of an imperfectly opaque false membrane, deposited on the free surface of the peritoneum and in the great omentum; they came away with it when it was removed. In another case there were patches of tubercular matter between the contiguous layers of a false membrane investing the intestines and the anterior wall of the abdomen. In another case there were masses of semi-transparent grey matter in the midst of a large quantity of tubercular deposit accumulated in the omentum and mesocolon; *with tubercle in the lungs and mesenteric glands not more advanced than in the peritoneal duplications.* In several cases subsequently met with the folds of the peritoneum were transformed into grey semi-transparent and tuberculous matter. The following facts are also most interesting. Tuberculous granulations in false membrane do not all stand in the same relation to the peritoneum. In the greater number of cases the tubercle and false membrane were removable together. In two instances the tubercle remained adherent to the peritoneum when the false membranes were separated. In one instance the tubercle adhered to the free surface of the peritoneum without being surrounded by, or in any way accompanied with false membrane, and in other cases the tubercles were placed underneath or on the *attached* surface of the peritoneum. In one case, where the false membranes contained no tubercles, there were, in certain places *between them*, lamellæ of tuberculous matter, "as if the false membranes had acquired by semi-organisation the faculty of secreting this matter." When tubercle occurs in the products of inflammation here as in other parts of the body, the inflammation must not be mistaken for the cause of the tubercle; the tuberculous state of the blood upon which the inflammation has supervened, or which may have set itself up in the progress of the inflammation, is the cause of the tuberculous deposit. Dr. Carswell makes some important remarks respecting the deposit of tubercle in the peritoneum. Admitting that tubercle is formed from tuberculous blood it is obvious that when the deposit occurs on a secreting surface the latter may nevertheless be healthy; and a healthy secreting surface may separate from the blood both the materials of its own peculiar secretion and also those of tuberculous matter. The natural secretion of the peritoneum being increased, and containing a quantity of tuberculous matter mixed up with it, tubercle is after a time separated as a heterologous secretion. In tuberculous peritonitis the three following stages of the process of tuberculisation are frequently well marked:—

"1st. On one portion of the membrane there is seen a quantity of recently secreted coagulated lymph. 2ndly. On another portion we find the same plastic semi-transparent substance partly organised, and including within it, or surrounding, a globular mass of tuberculous matter. 3rdly. On another part, the coagulable lymph is found converted into a vascular or pale cellular tissue, covered by an accidental serous membrane, beneath which and external to the peritoneal or original secreting surface the tuberculous matter is seated, having the form of a round granular eminence, resembling in colour and consistence pale firm cheese."(a)

In Plate III. fig. 4 of the "Pathological Anatomy," the deposit of tubercle in false membrane is beautifully represented by Dr. Carswell. The false or accidental cellular coat, becoming a false serous membrane, covers the peritoneal coat of the intestine, and tubercles are distinctly seen in the false cellular membrane, and also in the cellular texture between the circular fibres of the muscular coat beneath.

Rokitanski found yellow cheesy matter, sometimes shapeless, sometimes as large as doves' or hens' eggs in the accidental cellulo-serous tissue.

In the peritoneum in children, grey and yellow granulations, miliary tubercles, patches of tubercle, and crude and softened yellow tubercle occur thus:—

Grey granulation is more frequent than in the pleura. In the omentum it is sometimes in round grey semi-

(a) Morbid Anatomy, Ed. 4 p. 132.

(a) Path. Anat., Art. Tubercle.

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transparent masses similar to those of the lungs, and it may be observed contained within the folds without any appreciable alteration of the membrane itself. The fine vascular net-work which sometimes surrounds without in any instance penetrating the tubercle is more apparent here than elsewhere. The form which grey granulation assumes in the serous membranes depends upon mechanical causes. It is sometimes hard, resisting, and cartilaginous. It is sometimes seated on the internal, but much more frequently on the external surface of the membrane.

Yellow Granulation is more common than the former; it is almost exclusively located on the internal surface, and mostly surrounded with a false membrane, the existence of which it precedes. By means of these granulations and the false membranes which surround them, tuberculous adhesions of the liver or the spleen to the diaphragm are formed.

Miliary Tubercle and Tuberculous Patches may be intra or extra peritoneal. By their presence, even when sub or extra peritoneal, they occasion loose adhesions between the folds of the peritoneum, by which nooses of intestine are sometimes glued together. Adhesions, however, as in the pleura, may be more solid, fibrous, and resisting where miliary tubercles are agglutinated into patches; in the rarer cases the patches are seldom larger than almonds. In a still smaller number of cases tuberculous deposit in the omentum or even between the parietes of the abdominal organs is much more abundant and usually aggregated into enormous masses.

The adhesions produced by sub-serous tubercles between contiguous parts of the peritoneum form a useful barrier to intestinal perforation—those tubercles which are deposited on the internal surface have no tendency to perforate, while those on the external surface have always a tendency to penetrate it, and, just as sub-pleural tubercles sometimes establish a communication between the interior of the air passages and the pleura, so sub-peritoneal tubercles establish a communication between the digestive passages and the peritoneal cavity. The tubercle softens, produces ulceration of the intestinal tunics, and, as it progresses in every direction, on the one hand it destroys the serous membrane and on the other the mucous membrane, from without inwards; in this way an ulceration of the digestive canal is produced differing from that which results from softening of intestinal tubercles.

On destroying slight adhesions which unite nooses of intestine, a small cavity is often found between them, the walls of which are formed by the muscular tunics, and by the united edges of the ulceration of two contiguous peritoneal folds; the tubercular matter lying naked on the muscular coat of the intestine. In a more advanced period, the tubercle is found softened, suppuration having occurred and destroyed the muscular coat; the cavity being closed on one side by the mucous coat; and in the last stage this becomes perforated; the fæcal matter, should the peritoneal adhesions not be very firm, passing into the serous cavity. The tubercle forms a tumour towards the intestine from the size of a millet-seed to that of a pea, and the muscular coat may in the first place be perforated while yet pale and without a trace of inflammation; giving passage to tuberculous pus.

Sometimes a direct communication is formed between distant parts of the digestive tube, and alimentary or fæcal matters pass from the superior to the inferior portion without traversing the intermediate space. In such cases adhesions are formed between two contiguous faces of the serous membrane, tubercle softens, and perforation of the serous, muscular, and mucous coats is the consequence.

Grey infiltration appears to be a very rare occurrence in children. Rilliet and Barthez found the sub-peritoneal surface of the pelvis in one case sprinkled with a kind of fine *dust (poussière)*, formed of small ovoid yellowish-white grains, soft, non-adherent to the peritoneum, and of which it was difficult to determine the nature.

In children, also, sometimes numerous tubercles connect the intestines with the abdominal parietes, or the liver and spleen with the diaphragm, the whole abdomen being affected. Sometimes, on the contrary, the tuberculisation is more limited, occupying circumscribed spots only of the serous membrane. Partial, is much more frequent than general tuberculisation; it is met with in a majority of cases in the superior portion of the abdominal cavity, and particularly on the inferior surface of the diaphragm; after the diaphragm, the omentum is its most frequent seat; it is rarely observed between the folds of the intestines or in the pelvis. Sometimes the abdominal walls are free from adhesions; at other times adhesions occur throughout their extent. Finally, in children it is more frequently intra than extra membranous; yellow granulation of all the forms is the most common; after this miliary tubercles, combined or not with tubercular patches; grey granulation occurs frequently; and as in the adult peritoneal tubercles rarely soften.

In 86 cases of peritoneal tuberculisation in children, Rilliet and Barthez obtained the following results of observation:—

Grey granulations	24	Tubercular dust (*poussière*)	1
Yellow „	43	Intra-serous tubercles	40
Miliary tubercles or tubercular patches	37	Extra-serous „	22
Softened tubercles	6	Intra and extra serous tubercles together	14
Grey matter in masses	2	Seat doubtful	10

Tuberculisation of small amount	42
Tuberculisation rather abundant	24
Tuberculisation abundant	20

ORIGINAL COMMUNICATIONS.

ON THE RELATION WHICH THE EXANTHEMATA BEAR TO EACH OTHER.

By GEORGE GREGORY, M.D.,
Physician to the Small-pox and Vaccination Hospital, Highgate.

Among the many intricate questions which exanthematic pathology presents, none has excited more attention or elicited greater diversity of opinion, than the relation in which the several exanthemata stand to each other. From the tenth century, when the question was first agitated, to the middle of the nineteenth, where we are now happily arrived, physicians have exercised their ingenuity on it, but,

"Jam medici certant, et adhuc sub judice lis est."

Years may possibly elapse before the subject can be considered as disembarrassed from all ambiguity.

The Arabian physicians believed in the identity of small-pox and measles. This doctrine continued in vogue for many centuries. The continental authors who were the contemporaries of Sydenham were all staunch supporters of this theory. Daniel Sennertus, in 1640, inquired how it happened that the disease sometimes took the form of small-pox, at another time that of measles. Diemerbroeck, in 1687, distinctly affirms that small-pox and measles are only different grades of the same disease; the only material difference being that the generating miasm of measles is not so thick as that of small-pox. It is well-known that we are indebted to Sydenham for establishing the non-identity of these diseases.

By many physicians, both of the seventeenth and eighteenth centuries, the identity of measles and scarlet fever was fully believed. Morton evidently favoured the doctrine, and many of his recorded cases of alleged scarlatina must, from the length of incubation, have been really measles. I need not occupy time by referring to the long dispute as to the identity or non-identity of cynanche maligna and scarlatina anginosa, nor record that it was not until 1778 that Dr. Withering, himself a good practical physician, renounced the heretical theory of non-identity.

The fate of chicken-pox has been still more chequered. The first writers on this exanthem called it the crystalline small-pox, and considered it as belonging to the variolous family. The doctrine, however, was not universally admitted. When Heberden undertook the investigation of the subject, in 1767, the popular theory must have been that of identity; otherwise Heberden would not have been so liberally lauded for establishing the contrary doctrine. As time rolled on, the notion of identity revived, and in 1820, Dr. John Thomson, of Edinburgh, laboured hard to re-introduce the early dogma of variolous affinity.

Jenner, by the assumption of the phrase "variolæ vaccinæ," evinced the strong bias of his mind in favour of the identity of small-pox and cow-pox. Dr. Baron, and many others, followed in the same path. Mr. Ceely's experiments, in 1839, on the inoculation of the cow with variolous matter, corroborating, as they did, others of a like kind in Germany, were considered by many as decisive of the question; and, accordingly, the identity of small-pox and cow-pox has been, of late, very generally conceded.

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My own ideas on the subject, however, underwent no change; and I have since frequently attempted to stem the tide of popular opinion on this subject. In my published lectures on the eruptive fevers, I stated briefly the grounds of my dissent, but to so little purpose, that the most recent writer on the subject, Dr. Knox, of Strangford, in Ireland, refuses to allow to my arguments any weight whatever, and maintains the doctrine of identity so broadly and unreservedly, that, in his judgment, "*a conviction of the non-identity of the two diseases would go far to shake, in toto, our belief in the real efficacy of vaccination.*" This position appears to me wholly untenable, and I proceed to explain why I think so.

The passage in Dr. Knox's pamphlet (a) on which I would venture to comment, is to be found at page 18. It runs thus:—

"At one time Dr. George Gregory was directly opposed to the doctrine of the two varieties of pock being identical, inasmuch as no direct experiments had proved that cow-pock can be communicated from man back to the cow; but his statement is not in accordance with the experiments of M. Fiard. At the same time, on the ground that diseases which mutually produce each other are clearly referrible to the same source, he admitted the identity of small-pox and swine-pox; but, in the same train of argument, he denied that cow-pox and small-pox were identical, as the former never produced the latter in the human system; and small-pox, however mild, never approaches to the character of cow-pox. The *inconsequential* character of this mode of reasoning is apparent, but need not be insisted on, as late observations have *fully* established the identity of the two diseases; and it is difficult to see how any other inference could be arrived at, after the conclusive experiments of Ceely, unless we are prepared to assert, that one malady is capable of producing, by inoculation, another of a totally different nature."

To these several allegations of Dr. Knox I beg to reply—

1. That the doctrine of identity or non-identity does not, and never did, influence the belief, either of professional men, or of non-professional men, in the virtues of vaccination, inasmuch as their belief was infinitely stronger when the doctrine was avowedly doubtful, than it is now, when, according to Dr. Knox, the doctrine cannot be impugned. Faith in vaccination was, and is, and always will be, the result of observation and experiment, not of theoretical refinement.

2. I demur to the statement of Dr. Knox, that the mode of reasoning by which I attempt to prove the non-identity of small-pox and cow-pox is, as he states, *inconsequential*. It is, I maintain, strictly logical. It is the same train of argument by which Heberden demonstrated the non-identity of small-pox and chicken-pox, and it is, *totidem verbis*, the same as that which induced Withering to renounce his long-favoured doctrine of the non-identity of scarlatina, and Fothergill's ulcerous sore throat. It is usual with mathematicians to point out the error of a supposed demonstration. Instead, therefore, of saying, that this "*inconsequential reasoning need not be insisted on*," perhaps Dr. Knox would kindly indicate where the sophism lies, and what portion of the argument is so *manifestly* absurd!

3. No one who argues for the non-identity of small-pox and cow-pox, ever stated, or imagined, or intended to inculcate, that the two diseases were, to use Dr. Knox's words, "of a *totally different* nature." Surely between *actual identity* and a nature *totally* different, there must be some intermediate degrees. Men are related to each other in different degrees of consanguinity, and the legacy duty augments as relationship diminishes. Plants bear relationships to each other, varying in degrees. So do diseases. Diseases may be *allied* without being *identical*. *Identical*, in Walker's Dictionary, is synonymous with *the same (implying the same thing.)* Now, strange as it may seem to Dr. Knox, I am prepared to avow, that the experiments of Ceely do not warrant the conclusion that cow-pox *implies the same thing as, or is identical with, small-pox*. I affirm that one malady is capable of producing or developing, by inoculation, in an animal of a different kind, another malady of an *allied* nature, but still specifically distinct.

Let us reflect for a little upon the facts which have been lately demonstrated, regarding that widely-diffused morbid miasm, of which small-pox and cow-pox constitute two of the phases or developments. It affects the horse; it produces in the heel of the horse an eruption, the fluid virus of which, communicated to man, becomes cow-pox. It affects the udder and teats of the cow, and the secretion communicated to man assumes the form of cow-pox.

These disorders of the horse and cow respectively are mild or benignant disorders. The sheep, again, is liable to a disorder of a very intense character, the offspring of an allied animal miasm. This disease is known on the Continent by the names of "clavellée" and "clavaux," and in this country the term *variola ovina* has been applied to it. Matter taken from a sheep affected by this disease, and applied to man, appears as cow-pox, but vaccine lymph taken from the cow has *no* effect on the sheep, nor has the sheep-pox the property of affecting the horse or the cow. It does not appear that human vaccine will affect either the horse or the sheep, but it does take effect on the cow. Further, the morbid matter of human small-pox, when given to the cow, developes cow-pox. Thus we have the acrid *human* small-pox producing a mild disorder in the cow, and the acrid miasm of the sheep producing a *mild* disease in man. All this, in my mind, tends to prove that these several forms of animal miasm, allied to a certain extent, are yet specifically *distinct* from each other; that each miasm acknowledges laws of its own, and, though participating in the same *general* nature, is not *identical* with the miasm belonging to a *different tribe of animals*. If this position be admitted, (and I do not see how it can be denied,) then it follows incontestably, that the laws which regulate each phase and development of this widely diffused miasm must be studied separately,—that what is true of the one is not *necessarily* true of the other. In other words, the constitutional effects of small-pox and cow-pox are not *necessarily* the same. Because inoculated small-pox gives security for life, we are not justified in saying, that, *therefore*, cow-pox must do so too. The permanence of vaccine security, in short, must be a doctrine built on *observation*, not deduced from reasoning on the theory of identity.

Chemistry affords several analogies illustrative of the principle for which I contend. Calomel and corrosive sublimate have a common origin in chlorine and mercury. We call them by the cognate appellations of the chloride and bichloride of mercury. Yet what chemist would venture to call these substances *identical?* As calomel is to corrosive sublimate, so is cow-pox to small-pox. In like manner, we have five compounds of nitrogen and oxygen—the nitrous oxide, the nitric oxide, the hyponitrous acid, the nitrous acid, and the nitric acid. These five substances are all distinct from each other, yet all closely allied by community of origin, and some are readily convertible into others. It requires no great stretch of imagination to conceive, that the primary exanthematic miasm, so largely disseminated throughout the animal kingdom, is composed of two or three ingredients, which, variously combined, appear in the several forms of small-pox, cow-pox, chicken-pox, sheep-pox, and equine grease; while other elementary changes convert the miasm into the parent of measles, scarlatina, the pestis bovina, and the canine distemper. Nay, it is further very conceivable, that cholera, the dreaded Asiatic pestilence, is an offshoot of the same miasmatic root, which, mollified by the lapse of ages, may at length display features which will give it rank among the exanthemata.

The columns of this journal have recently exhibited the results of Dr. Jenner's elaborate investigations at the London Fever Hospital. He professes to have established the exanthematic characters, as well as the *non-identity*, of typhus and typhoid fever. Although pathologists have not yet generally given in their adhesion to this *new* Jennerian doctrine, enough has been done to prove that Dr. Jenner is moving in the right direction. Thus, while Dr. Knox labours to prove the *identity* of two maladies so opposed in their *external* characters as cow-pox and small-pox, Dr. Jenner labours to establish the non-identity of two diseases so closely *resembling* each other in their external characters, that for hundreds of years past they have been confounded!

When Dr. Knox arms two lancets, the one from a case of distinct *inoculated* small-pox, and the other from a case of confluent *natural* small-pox, I acknowledge that the lancets are charged with virus *identically* the same; but when he now charges a third lancet with *vaccine* matter, my philosophy requires me to say, that the third lancet holds on its surface

(a) "On the Existing State of our Knowledge of Vaccination and Revaccination as Preventive of Small-pox." By Alex. Knox, M.D. 1850.

a virus *generically allied*, but *specifically distinct* from that on the two others.

Some persons may consider that this is a mere dispute about words; but they who read with attention Dr. Knox's paper, and several other recent treatises on the protective influence of vaccination, will see that this doctrine of identity is now made the prominent feature in explaining the increasing quantity of *post-vaccine* small-pox. Dr. Knox's words are, —"This identity unquestionably supplies a *powerful* argument in favour of the efficacy of vaccination." In a subsequent passage, (page 19) he says,—"Reasoning from analogy, and the observed effects in other diseases, we should be led to the conclusion, that the amount of the protection imparted by an attack of small-pox, whether in its severe and casual, *or in the mild and modified form of cow-pock*, would be the same." The theory of identity is obviously the ground-work of Dr. Knox's faith. It is the pivot on which his reasoning turns. Truly, therefore, may he press the doctrine, and aver that the opposite opinion of non-identity would go far to shake belief in the real efficacy of vaccination. Placing my confidence on a different basis, I dread not such a result; and it gives me the most unfeigned satisfaction to know that I have, on my side of the argument, and opposed to Dr. Knox, the writer who has devoted more of his time and attention to practical and theoretical vaccination than any man now living in Europe—an author, too, quoted favourably by Dr. Knox, though not so frequently as I should have recommended.—I mean M. Bousquet, of Paris. After discussing the *vexata quæstio* of the relation in which cow-pox and small-pox stand to each other, M. Bousquet sums up the argument in these words;—"*Il n'y a pas entre elles identité de nature, mais il y a reciprocité d'action.*" This is the philosophy to which I adhere, leaving Dr. Knox to pursue the *ignis fatuus* of identity.

But I have not only M. Bousquet, I have also the Act of Parliament with me. The 29th of the 3rd Victoria, expressly provides, "That any person who, from and after the passing of this act, shall, by inoculation with variolous matter, or by wilful exposure to the same, or *wilfully by any other means whatsoever*, produce the disease of small-pox in any person in England, Wales, or Ireland, shall be liable to be proceeded against, and, upon conviction, shall be imprisoned in the common gaol for any term not exceeding one month."

If Dr. Knox, therefore, means *seriously* to contend, that by the insertion of vaccine lymph, he produces, *bonâ fide*, the *small-pox*, I can only say that he *wilfully* brings himself under the provisions of the Act, and is liable to imprisonment in the gaol of Strangford for the best part of one calendar month. I doubt, however, very much, whether, either in Ireland, or in England, or in Wales, "any two Justices of the Peace in Petty Sessions assembled," could be found, who would believe in the identity of cow-pox and small-pox, and convict accordingly! The very notion is preposterous, but it strikingly exemplifies the difference between theory and practice, between the reveries of science and the common-sense of the world.

6, Camden-square, Camden New Town.

CASE OF "SCARLATINOID RASH," OCCURRING AFTER DELIVERY. HAD AIR ENTERED THE UTERINE VEINS?

By EDWARD L. FALLOON, Esq., M.R.C.S.

It has often occurred to me, that the technical precision required in getting up a case for publication, seriously retards the progress of medical science, and delays our arrival at correct conclusions from established facts, owing to the dearth of data. I account for this dearth in two ways; first, because general practitioners in the country and provincial towns are so basely paid that they are obliged to slave every hour to make a respectable livelihood, and therefore have little time for reading or reflection, and still less for journalising, and consequently become barren and unfruitful towards their professional brethren; inasmuch as cases of great interest are of weekly occurrence (if I may judge from my own experience) to men in ordinary practice, but, being influential on their minds *only*, and made available for their own special guidance, are nevertheless lost to science by dying with them, and leaving no record behind. The second way that I account for the comparative paucity of cases reported in our journals, is this; there is evinced at the present day a morbid zeal for everything that bears the impress of novelty and originality, or at least the semblance of them; and while many a man meets with cases that would strengthen the hands of younger practitioners, but shrinks from publication, because he has nothing new to say; further, while instruction of the most valuable kind is often disregarded, because founded on long-established principles, we find every new thought and idea hailed with enthusiastic respect, though they boast of nothing more, in many instances, than a degree of intrinsic ingenuity. Not that I wish to cast a slur upon original or novel views, which frequently lead to vast improvements in our science; still I must say, that this excessive eagerness for what is new, with a contempt for what is old, is too generally the offspring of misdirected genius. This, therefore, is my preamble, and now to my case.

I was called, Nov. 20, to attend Mrs. A., aged 26, at 1 o'clock, midnight, with her second child; had been complaining since 11 p.m.; pains increased; head presenting, and pressing much on the linea of the os pubis, where she referred all her pain. At 2 o'clock sudden fainting came on, with deadly pallor and cold extremities; on rallying from this by brandy, open windows, &c., her pains brisked up, and the uterus dilating, but interrupted frequently by the faintness, which kept recurring without any external hæmorrhage, till 3 o'clock, when she had a fearful rigor; rallied again, and became less faint, but complaining loudly, and beseeching for chloroform, which I was ultimately obliged to give her, with great benefit, till her child was born at 5 o'clock, a.m., without any unusual detention in the vulva, but *dead*, and, immediately on its exit, the placenta followed, accompanied by an enormous clot, as large, if not larger than the placenta; the subsequent hæmorrhage was not excessive, but the faintness was extreme; nevertheless the uterus contracted well. The shock of her child's death, added to her exhaustion, made her case very critical for some time (having lost her first from erysipelas); she looked blanched and anæmic to a high degree, but gradually improved. On the third day I was not a little alarmed and surprised to find her covered by a scarlatinoid rash, and this not lessened on being assured by her mother, then present, that she had had both scarlatina and measles. I had not met with this symptom before, and it was the more unaccountable by being unaccompanied by any appreciable fever; pulse 96. I ordered a mild alterative and cooling aperient, and left very uneasy. On returning to my study, I happened to take up the *London Journal of Medicine* for October, and read that highly interesting and scientific article by Dr. Cormack, on "The Entrance of Air into the Uterine Veins," wherein he alludes to some cases occurring in the practice of Dr. Simpson, in which the same rash appeared three days after delivery, but *all* followed by death; this made the matter more anxious for me by many degrees. Visiting early next morning, I found the patient improved; but the rash still out, but *paler*; no febrile symptoms. I ordered a more generous diet, and it continued to disappear daily; and she ultimately did well, and is able to appear at her dinner-table now, little better than a month.

It is evident this was a case of hæmorrhage in utero, prior to the rupture of the membranes, owing to detachment of the placenta, and the rigor, I suppose the evidence of the child's death; but I am not in possession of any facts that throw light on the cause of this detachment, except that she had felt debilitated of late from a continuous attack of influenza. I am induced to publish this case from a remark I find in the ingenious article by Dr. Cormack, above alluded to, where he says, "he notices his cases, in the hope that others will, when opportunities occur, make and record their observations." I also refer to this phenomenon (the scarlatinoid rash) more with a view of adding an additional case to those already on record, than of proposing any theory regarding it. While I say this, I am not disposed to accept any of the theories at present propounded as at all satisfactorily accounting for this appearance; nor do I acknowledge any analogy, so far as I am able to judge, between the "reddish tinge" of Dr. Warren and the "scarlatinoid rash" of Dr. Simpson; the former appearing immediately after the evident entrance of air into the circulation, while the latter did not appear until two or three days after the shock of parturition, without any allusion to air having entered the uterine orifices. In my case, I think it is clear that no air entered; the fainting commenced long before the mem-

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branes were ruptured, and faintness only remained after the birth of child and placenta; besides, I had recourse to such mechanical support as made its entrance almost impossible. Nor do I see any analogy between a continuous, general, and gradually disappearing rash, as above stated, and the "fitful suffusion of the face with a delicate blush, superseded quickly by extreme pallor;" to this latter I think Dr. Cormack's theory of "capillary relaxation" admirably applies; but, with all deference to such high authority, it does not satisfactorily account to my own mind for the former red hue. If I might venture a theory on the subject myself, I would remark that I believe it to be connected with such a state of body as exists in low adynamic fever or pure typhus, where you have a general lack of vital tone, depressed organic nervous system, and deteriorated circulating medium; all which were evident in Mrs. A's. case; and the rash disappeared on adopting a generous diet and mildly tonic plan; in a word, analogous to petechiæ or purpura.

I sincerely hope that others will be encouraged to report similar cases from time to time; and it is encouraging to know that death must not of necessity follow its appearance, as seems to have been the case in those reported by Dr. Simpson.

4, Shaw-street, Liverpool.

A CASE OF EXCESSIVE QUANTITY OF LIQUOR AMNII.

By CHARLES DREW, Esq., Surgeon.

Mrs. F., aged 31, a healthy looking woman, rather stout, a laundress, and mother of nine children.

A fortnight before the day on which she was confined, she was taken faint without any apparent cause, whilst walking. She recovered from this; but before she reached home she was again taken faint. She had suffered from much pain in the right hypochondrium, in which situation there is a great depression. The seat of pain could be covered with the top of the finger, and was increased after the occurrence of the fainting. This event was followed by rapid enlargement of, and intermittent pains in, the abdomen; the pains were aggravated by taking warm drinks, and continued to torment her up to the time of her confinement. The movements of the child, which, previous to the syncope, were distinctly perceptible, after that occurrence entirely ceased.

At the time I first saw her (two days before her confinement) she was about eight months gone with child, very large, scarcely able to move about, and complained of pain in the back and bowels, and a sense of great weight in the right groin. Distinct fluctuation could be felt in the bowels, but no part of the child could be distinguished by external examination. As the bowels were costive, I gave her a dose of castor oil, and, to procure rest, 20 minims of liq. opii sed.

Sept. 22.—I was called up at a quarter past four in the morning. She had been in labour two hours. Os uteri nearly fully dilated, and the bag of membranes protruding through it. The os having been dilated fully in about an hour, the membranes gave way, and a large quantity of liquor amnii was discharged. As pain succeeded pain, the flow of fluid was unceasing, coming in gushes with the pain, and completely deluging the bed. The presentation was vertex. A female child was born at seven o'clock with the cord round the neck. The placenta came away a few minutes after, and the uterus contracted firmly. The after-pains were rather severe. She did well, and came down stairs on the third day.

As she was confined in bed I could not exactly estimate the quantity of liquor amnii; but I think it was at least two gallons. For her seventh child she was confined out of bed; there was then so much water, that, to use her own expression, the room was deluged. She thinks the quantity in this case about the same as in the ninth.

The child was in a state of decomposition, having most probably been dead a fortnight. The bowels were much larger than usual, and decomposition had advanced in them, particularly around the umbilicus, much further than in any other part of the body. The placenta was also in a state of decomposition; likewise the umbilical cord. The child was large for eight months. I did not examine particularly the condition of the membranes.

Out of nine she has two living, healthy, children; the remainder, with the exception of one, were born dead. About a fortnight before each of her confinements (excepting those for the third, fourth, and eighth children, which were born alive), she was taken faint without any assignable cause, once, twice, or more times; the movements of the child ceased, she began rapidly to increase in size, pains came on in the back and bowels, which ceased only with the expulsion of the fœtus; the pain in the right side was increased.

Syncope did not occur a fortnight before the birth of the third, fourth, and eighth children, which were born alive. The quantity of liquor amnii in the two former of these was normal, but much beyond the proper quantity in the eighth. During her pregnancy for the third and fourth, she experienced very little pain in the right side.

She states that the placenta, cord, and abdomen of each of the dead-born children, were "diseased and putrified;" the abdomen much larger than it ought to have been; and that the eighth child had enlarged abdomen and umbilical hernia, and died four months and a half after birth of hydrocephalus.

Liquor amnii—with the first child she does not remember if it was too much; with the second, fifth, sixth, and eighth children it much exceeded the usual quantity; but with the seventh and ninth it was at least two gallons. As I have before stated, there was not more than the normal quantity with the third and fourth.

The first, third, fourth, sixth, and eighth went to their full time of nine months, the second, seventh, and ninth, were born at eight months, and the fifth at six months.

Her first labour was difficult—delivered instrumentally; the second was a transverse case, the arm presenting. For the sixth she was confined to her bed a week before the child was born—she was flooding more or less during that time.

She is not at all dropsical. The mother had nothing abnormal with regard to the quantity of liquor amnii.

Wiveliscombe.

ON GONORRHŒA.

By JOHN L. MILTON, M.R.C.S., Lond.

INTRODUCTORY REMARKS.

Although I do not intend to offer any explanations or any theories which I do not deem essentially necessary, yet in this, as in every work, the whole strain of writing and reasoning wears a personal colouring and a peculiar style of reasoning; and hence it may be as well to give here a preliminary sketch of some of the laws to which I believe we may look for an explanation of a few of the phenomena of disease. And if the explanation which I have ventured to lay down be not adequate to explain all the mysteries of medicine, yet I must say I do not on that account think that it ought to be rejected, but rather examined, to see if it offers a satisfactory elucidation of those to which I have applied it here, and, if this be found to be the case, gradually to extend it to others. It is only by being perfectly certain of what we are doing, by being quite sure of the ground we stand on, that we can venture on to the slippery quagmire of physiological disquisition. Yet this must be done, or else we shall never extend our knowledge. To say, as many say, that all that is necessary to the healing art is, to observe and trust to experience, that a good physiologist is a bad surgeon, &c., is at once to give up the use of our reason, the voluntary renunciation of which makes man a step lower than animals. When a man rejects a "reason," or a physiological explanation of the use of a remedy, or the appearance of some particular symptom, on the ground that such things are all theory, never yet tested by experience, we may be sure there is some warp in his mind. The destructive nature of this style of argument has been so often combated and vanquished in books, that I need not attack it here; but it still retains a very firm footing among those who never read. At the same time, I hold distinctly that there must be limits to theorising, and that it is much safer, if a choice has to be made, to neglect the reasoning than the facts; but then these must be drawn from a pure source, not from experiments on animals. Had Müller and Rudolph Wagner adopted this idea, we might have been a century further than we are.

To begin, then, I wish to state the following opinions, begging again to remind the reader, that I am not offering a

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system, but only a few axioms which may serve to lead his ideas back to laws, and to classify the results of practice and observation.

I hold

1. That every germ or new being arises from a power communicated to it, and that the most normal state of the being, regarding it as an animal, is where all the powers, as that of generation, thinking, of growth, and performing the functions of life, are in equipose, and that this is the case with the bulk of beings arising from normal germs.

2. That if this equipoise or balance be disturbed, it tends either to the purposes of growth or of decay.

3. That if it be disturbed for the purposes of growth, its direction its threefold.

a. To the brain, as in men of genius.

b. To the organs of generation, as in the fathers of large families.

c. To the growth of the body, as in giants.

4. That this tendency to one part invariably produces a loss of power in some other or others; thus—

a. Men of genius have very rarely, men of surpassing genius never, been of great stature, or been the fathers of families which have lived long.

b. That the fathers of large families have never manifested any great mental development, nor, so far as I can learn, been of great size.

c. That giants have never distinguished themselves by their attainments, nor have been very long lived, nor fathers of families surviving them.

5. That the tendency of this development is never continued in full force from father to son; from parent to child.

6. That of all, the tendency towards development of the thinking powers, being the most under control, is most frequently carried to the highest pitch, and most marked in its effects.

7. That in those cases in which the balance of power is disturbed for the purposes of decay, as in dwarfs, children born scrofulous, &c., there is not a want of power, but a disturbance of it; vital processes going on quickly in some parts, and inactively in others; wherefrom disease results.(a)

8. That the power communicated to fertilize the germ is always equal, and that no more is given off than is necessary to fertilize the embryo, or else the parent might perish, Nature being a careful housewife; but that,

a. The balance is equally distributed when the germ is normal.

b. That it is unequal when the germ is abnormal.

9. That the power is equally distributed in the normal state to all parts of the body, as the blood nerves, &c., while the contrary is observed in all abnormal states.

10. The more equal the balance the greater the resistance to morbid actions, and the less easily is it disturbed. A South Sea Islander, a pugilist, are animals in whom the balance is well kept. A gun-shot wound does not produce the effect on them that it would on a hysterical woman, in whom the balance is deranged.

11. That the power must not be all drawn away too suddenly to any one part, or else the being dies, as we see in poisoning by prussic acid, death by lightning, blows on the stomach, and similar cases, where all the power seems discharged into the part attacked.

12. That continuity of structure is absolutely necessary to the transmission of the vital power. When a limb is removed, blood abstracted, or secretions thrown off from the body, they die; the power apparently retiring into the body, however diseased, to which they belonged.

13. That the being can only die by interruption of the continuity of structure, or displacement of the power from some vital organ.

14. That loss of the generative power, or that of thinking, can only result in the same way, and hence may be both functional and organic.

15. That the displacement of this power, originating at birth, is different from that superinduced after birth, and hence that there is an artificial and a real genius; there are hereditary and adventitious diseases.

If anything I have said here should appear at first sight superfluous and useless, I must beg the reader to suspend his judgment till he has seen how it applies to practice. I purpose in another work to carry out the subject still further and see if it does not admit of more extended application.

Having now stated so much I shall proceed to the immediate consideration of the disease in question.

[To be continued.]

(a) To this point I shall revert more fully in my work on Syphilis.

THE USE OF CHLOROFORM
IN THE REMOVAL OF
FOREIGN BODIES FROM THE EYE.

By JAMES MUNRO, M.D.

Case 1.—Robert J., stone-mason, aged 20, came to me on 20th of April and stated, that three days before I saw him, while engaged at his work, he received what is popularly called a "fire" on his eye. As is customary on such occasions, he applied to some of his fellow-workmen, who are considered rather expert in removing these so-called "fires;" but in the present instance, after a great number of ineffectual attempts to remove it, which only made matters worse, the man came to me. On examining the eye, which I had considerable difficulty in doing in consequence of the highly inflamed state of the organ and great intolerance of light, as well as constant motion of the eye and great lachrymation, it being twilight, and not being able to see properly, I ordered him to go home, take some purgative medicine and foment the part, and come to me in the morning. He came early next morning, telling me if I could not remove the fire, he was certain he would lose his eye, and that the pain was now so great he could not suffer it. I made several fruitless attempts to examine the eye, but, as it gave him a great deal of pain, I thought of trying the effects of chloroform, to which the man readily consented. He having been put under the influence of this most valuable agent, I immediately proceeded to examine the eye, which I was now enabled to do with perfect freedom. I found the whole eye highly congested; at one particular point more so than the rest, and at this point I thought I could distinguish a small foreign body. I therefore proceeded to remove it, which I accomplished easily enough with the point of a common lancet. It proved to be a small piece of iron, from the chisel, I suppose, with which the man had been working. During the whole time I had the eye under the most complete surveillance, and had not the smallest difficulty in keeping it perfectly steady. Immediately on his recovery from the effects of the chloroform, he expressed himself relieved. I advised him to continue the fomentation, and to take some more purgative medicine, as the dose the night before had not acted. Next day he felt a great deal better, and two days after he was again at work.

Case 2.—John R., labourer, aged 30, came to me on the 6th of November, stating, that two nights before I saw him, while going home, he tripped, and fell into a thorn-hedge on the road-side. At the time, in consequence of being tipsy, he experienced no inconvenience. Next morning he complained of pain and inability to open his eye; and, thinking there must be something wrong, he came to me. After several attempts to see into the eye, which were altogether useless in consequence of the great pain and difficulty of opening the eye-lids, suspecting some foreign body might be lodged in the organ, I proposed to give him chloroform, to enable me to make an examination, but he declined taking it, and went away; he however returned in the afternoon, telling me that the pain now amounted to torment, and that he would gladly do anything if I could relieve him. I at once put him under the influence of chloroform in the usual way. In two minutes he was in a state of complete anæsthesia, and then I had a complete command of the eye. On opening the eyelids, which I could now easily accomplish although the eye was highly inflamed, I discovered a foreign body in the sclerotic coat, which, on laying hold of with a pair of fine pointed common dissecting forceps, I extracted. It proved to be a small piece of thorn from the hedge into which he had fallen. The inflammation being intense, and pain great, I ordered a dozen leeches round the eye, with a calomel pill and black dose. I saw him again in the morning. He said the leeches relieved him at the time, but that the pain returned during the night. I therefore repeated the leeching, which had the effect of relieving him entirely, insomuch that three days after the removal of the thorn he was able to follow his

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usual employment without any inconvenience. I am certain, that both in this and the former case I could not have succeeded in removing the foreign bodies without the use of chloroform; at least, if I had, it must have given intolerable pain and a great deal of trouble; whereas, with this most excellent adjuvant, it became a very easy matter.

Moffat, N. B.

SINGULAR CASE OF EXTENSIVE AND SEVERE COMPOUND FRACTURE OF THE SKULL WITHOUT SYMPTOMS OF COMPRESSION.

By W. B. SEALY, M.D., M.R.C.S.

James Taber, aged 11, of Bishopstone, Wilts, received, July 29, 1850, a severe kick on the forehead from a cart-horse. On seeing him at nine o'clock in the evening, about two hours after the accident, I found him partially insensible from concussion of the brain, but on rousing him he could answer questions rationally, quickly, however, relapsing into his former semi-conscious state.

On examining the head, I found a semi-circular scalp wound above the frontal sinuses, exactly in the centre of the forehead, corresponding with the shape of the horse-shoe, with the convexity downwards, and about four inches in length, from which there had been much hæmorrhage.

This drawing was taken on the 17th of August by my friend Mr. Hind. It is a very faithful representation of the boy's appearance at that time. The large piece of denuded bone, deep in the bottom of the cavity, and the exuberant granulations, are well shown. The piece of bone removed is shown of its natural size.

There was extensive fracture of the skull, a portion of the frontal bone being driven to the depth of more than half an inch, forming a cup-like cavity, the floor of which was about an inch long and three-quarters of an inch wide, entirely denuded of covering. The sides of this cavity sloped inwards, so that the brim (if I may use the term) was considerably larger than the floor. The fractured portions were of an irregular shape and firmly imbedded.

There were no symptoms of compression; vomiting had taken place once, and he passed his water freely while I was there. Gave him hydrarg. chlorid. gr. iv., and applied cold-water dressing to the wound. When left alone in bed, the boy lay very still, in a kind of stupor, but breathing regularly and quietly.

July 30th.—Saw him at eight o'clock this morning with my friend Mr. Hind, of New Swindon. He had passed a quiet night; been sick once, after drinking some water; bowels not open; pulse regular; skin cool; he is, apparently, quite recovered from the shock of the blow; complains of severe pain in the head, and screamed much when the wound was touched. Removed with an elevator a projecting piece of bone from the left side of the cavity, about the size and thickness of a fourpenny bit (see wood-cut); continued cold-water dressing with a light bandage; had his hair cut quite short. To take cal. c. jalap statim, mag. sulph. post horam. To be kept most perfectly quiet, and to have a diet of arrowroot and gruel.

31st.—Has been quiet; bowels not opened; been sick several times, and complains of thirst; pulse quickened, and tongue slightly furred; to keep the dressings on the wound constantly wet with cold water, and to repeat cal. c. jalap stat. et mag. sulph. post hor.

August 1st.—The bowels been well opened, and he expresses himself as better. No return of sickness; wound looks clean; skin cool; tongue clean; pulse natural. The drowsy feelings have quite passed off.

To take hyd. c. cretâ gr. ij. n. mque.

Continue water dressing.

2nd.—Bowels regular; wound suppurating freely, and beginning to granulate. Water dressing to be discontinued, and bread poultice substituted.

3rd.—Much the same. The granulations large and flabby. Applic. argent. nitrat.

5th.—The boy doing well in every respect. Appetite good; and thinks it "very hard he may not be allowed to eat as much as he likes." Bowels open; tongue clean and moist; no thirst; no heat of skin; no pain in the head; pulse rather quicker than natural, but still healthy.

Continue poultice; and take hyd. c. cretâ only at bedtime.

14th.—Doing exceedingly well. Omit the grey powder.

17th.—Since the 5th, my little patient has gone on without a bad symptom, the wound looking healthy, and granulating freely. Caustic has been applied almost daily. Complains of no pain in the head. Has sat up the last three days for two hours at a time with no ill effects. Pupils rather large, but act quickly and freely. Tongue moist and clean. Bowels regular. Pulse rapid, being 120. His pulse has been getting gradually quicker the last three days; but yet there is no symptom of inflammatory action in the brain or its membranes, and no general indication of fever.

To take hydrarg. c. cretâ, gr. ij; antim. tart., gr. 1-12; n. mque. Continue poultice.

19th.—Boy doing well. Pulse *very* much quieter. He is very cheerful.

From this time he ceased to take medicine, except an occasional aperient. He was kept very quiet, and on low diet. The wound gradually filled up; so that, by *September 20th*, it was quite healed.

November 26th.—I saw this boy to-day. The forehead has a very flattened appearance; and in the centre of the wound is a deep indent. The fractured edges of the bone can plainly be felt through the skin, extending four inches in length(a) by two in breadth. He seems to enjoy excellent health, and has been at school since the wound healed, and makes good progress. His intellect appears quite as bright as usual.

Swindon, Wilts.

TYPHUS FEVER, TYPHOID FEVER, RELAPSING FEVER, AND FEBRICULA,

THE DISEASES COMMONLY CONFOUNDED UNDER THE TERM

CONTINUED FEVER.

ILLUSTRATED BY CASES COLLECTED AT THE BED-SIDE.

By Wm. JENNER, M.D. Londin.,

Licentiate of the Royal College of Physicians, Professor of Pathological Anatomy in University College, London, and Assistant-Physician to University College Hospital.

[Continued from page 33.]

EIGHTEENTH PAPER.

RELAPSING FEVER.—*Continued.*

DEATH SUBSEQUENTLY TO THE TERMINATION OF THE RELAPSE.(b)

Case 55.—In a man aged 32 years—rigors—headache—pain in the limbs—vertigo—furred tongue—anorexia—rapid pulse

(a) By "length" I mean across the forehead, from temple to temple.

(b) For the notes of this case, taken at the bedside during the life of the patient, I am indebted to my friend Mr. Humphrey. The examination after death was made by myself.

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—hot and dry skin—convalescence on the 11th day of disease.

Relapse on the 16th day of disease—rigors—rapid pulse—loss of appetite—hot skin—vomiting—convalescence on the 22nd day—erysipelas of the head and face on the 35th day—death on the 47th day of disease.—After death, a clot in the cavity of the arachnoid—slight opacity of the arachnoid—serosity beneath mucous membrane of epiglottis and adjacent parts—large firm spleen—mucous membrane of cœcum and colon thickened and grey—liver tough, dark, and coarse in texture—other organs healthy.

Alexander M'D., aged 32, of temperate habits, a ship steward, was admitted into the London Fever Hospital, June 17, 1848, under the care of Dr. Southwood Smith. He stated that, after having slept out in the rain during the night of Monday, June the 12th, he was seized on the following day with rigors and headache. On Wednesday he suffered from pain in the back and limbs. His bowels at this time were regular. He took to his bed on Thursday, *i. e.*, the third day of illness.

About two years before his present attack, he had, while at Calcutta and Madras, dysentery, followed by liver complaint and dropsy.

On the 18th June, *i. e.*, the 7th day of disease, the following notes were made:—Slept at intervals during the night; sleep disturbed by dreams. Some headache; vertigo on assuming the erect position; mind and special senses normal; muscular powers little impaired; tongue furred, dry in the centre; much thirst; no appetite; two stools; slight tenderness of abdomen. Pulse 120; occasional cough; expectorates a little greyish frothy mucus. No pain in the chest; skin hot and dry; no spots.

Mist. salin. eff. Hydr. c. cretâ gr. ij; pulv. ipecac. co., gr. vj., M. h.s.s.

Alexander M'D. continued to improve daily till the 23rd of June, *i. e.*, the 11th day of illness, when his pulse was only 78, and appeared convalescent.

No further note was made till the 16th day, when he was attacked with rigors, followed by heat of skin, quick pulse, and loss of appetite.

On the 18th day the skin was hot, the pulse 108, and there was occasional vomiting.

By the 22nd day his pulse had fallen to 84, his appetite had returned, and he was again noted to be convalescent.

On the 35th day he was attacked with erysipelas of the head and face. He died on the 29th of July, *i.e.*, the 47th day from the commencement of his illness, and the 25th after convalescence from the relapse.

The body was examined 6½ hours after death, the weather being temperate.

There was no *rigor mortis*. The integuments of the head, neck, and face, were pale. A considerable amount of serosity was found in the subcutaneous cellular tissue of the same parts, but no trace of pus.

Head.—A little red serosity escaped from the cavity of the arachnoid. On dividing the *dura mater* a delicate film of coagulated blood lay on the surface of the arachnoid, covering the convex surface of the left hemisphere. Firm, old adhesions united the two layers of the arachnoid in the vicinity of the longitudinal fissure. The arachnoid itself was slightly opaque. There was no abnormal vascularity of the *pia mater*. A little colourless, transparent serosity was found in the ventricles. The substance of the encephalon was firm, as in health.

Pharynx.—Its mucous membrane was pale and considerably elevated by a quantity of transparent yellow serosity, which occupied the meshes of the sub-mucous cellular tissue. Much similar fluid was found in the submucous tissue at the base of the *epiglottis*.

Larynx.—The epiglottis itself, the arytæno-epiglottidean folds, and *chordæ vocales* were much thicker than natural; the *rima glottidis* was a mere chink. The mucous membrane between the epiglottis and the *chordæ vocales* was finely injected. A large amount of yellow serosity was found beneath the mucous membrane of the whole larynx.

The *right and left lungs* weighed respectively 15 and 12¼ ounces; they were perfectly healthy in appearance.

Several of the bronchial glands had passed into a state resembling dry mortar.

A few old adhesions united the pulmonary and costal *pleura* on either side.

The *pericardium* contained about ½ oz. of transparent yellow serosity.

The *heart* weighed 9½ oz.; its substance and valves were healthy in all particulars. A large firm clot was found in the right auricle and ventricle. A smaller clot on the left side.

The *liver* weighed 2lb. 5½ oz. It was dark in hue, abnormally tough. The lobules seemed large and the texture of the organ coarse.

The *gall bladder* contained a moderate amount of dark, thick, orange-coloured bile.

The *spleen* weighed 24½ oz., and was adherent on all sides. The adhesions were old and firm. The substance of the organ was pale, and broke down with difficulty. The capsule was considerably thickened, especially about the centre of its convex surface.

The *pancreas* weighed 3½ oz.; it was pale and firm; apparently healthy.

The *right kidney* weighed 6½ oz. (a) Its capsule was thin, and separated with facility. On section, the substance of the organ was dark in hue, but perfectly healthy in structure. There was no abnormal vascularity of the lining membrane of the pelvis.

The *left kidney* weighed 6½ oz. In other particulars it resembled the right.

The *urinary bladder* was distended, its lining membrane pale, and in every respect normal.

The *œsophagus* was healthy in appearance; its mucous membrane had a purplish-violet hue inferiorly.

The *stomach* was contracted; very rugose. Its mucous membrane was mammillated throughout its whole extent. It was normal in consistence.

The *small intestines* were healthy in all particulars.

The mucous membrane of the *cœcum* was of slate-colour; the ascending and transverse *colon* of a palish grey. The solitary glands were visible throughout, whiter than the surrounding membrane, each gland surrounded by a dark margin, and having a dark grey central point.

The mucous membrane of the *large intestines* generally was rather softer, and slightly thicker than natural.

This was a well-marked case of relapsing fever, in a man aged 32 years. Vomiting was a prominent symptom in this, as in several of the previous cases. Although vomiting may and does occasionally occur in the course of both typhus and typhoid fevers, yet, compared with its frequency at the outset of the first attack of relapsing fever, and during the relapse, it is rare in the two former diseases. The erysipelas, from which the man died, commenced thirteen days after the termination of the relapse, and was, probably, in no way dependent for its origin on his previous state. There was no trace of disease of Peyer's patches, that is to say, the anatomical character of *typhoid fever* was absent; in fact, the case is here adduced, to show, that in mild cases of relapsing fever, no serious lesion of the viscera is discoverable after death. The only structural change which could be referred to the preceding attack of relapsing fever was the large size of the spleen, and even that I think may with greater probability be considered to have been partly due to old disease, and partly to the erysipelas, as a consequence or accompaniment. *In the acute febrile specific disease generally, of which erysipelas is one, there is a tendency to enlargement of the spleen.* The importance of this fact pathologically has not, it appears to me, been sufficient dwelt on by writers. The circumstances which determine this enlargement, and the laws which regulate it, are within the legitimate scope of pathological research. Louis' reasoning on his own observations, in *one* of these diseases, appears to warrant the conclusion, that the softening and increase in size are not the consequence of inflammatory action. As is common, if not constant, in erysipelas of the head and face, the fauces and, by continuity in *this case*, the larynx also became effected with erysipelatous inflammation. The tendency of that variety of inflammation to induce effusion of serosity, an event of no moment in the subcutaneous tissue, is, in this situation, a cause of death.

The grey hue, and thickened state of the mucous membrane of the large intestines, studded with the abnormally visible solitary glands; the tough and coarse-grained condition of the liver, and the old disease of the spleen, *i. e.*, its thickened capsule and trabeculæ, and firm, pale adhesions, were doubtless the remains of the "dysentery and liver complaint," from which Alexander M'D., had suffered at Calcutta two years before his entrance into the hospital.

(a) On this, as on other occasions, the kidneys were weighed *without* their capsules.

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THE LONDON PRACTICE OF MEDICINE AND SURGERY.

GUY'S HOSPITAL.

By F. W. PAVY, Esq.

BRONCHO-PLEURO PNEUMONIA.

The following is a case which has lately occurred in this hospital, and is of much interest, as showing how easily one may be induced to adopt as unquestionable the fictitious account of an accident as being the origin of a serious and fatal complaint; how closely symptoms of disease may simulate, and how clearly and satisfactorily they may be ascribed to, the effects of a non-existing external injury, and explained by an occurrence which never has happened. The patient, whose name was Robert Lovegrove, was a delicate strumous-looking boy, of 17 years of age; had been employed at a baker's, in Newington, and was brought to the hospital in a cab, Nov. 28, 1850, and admitted into one of our accident wards, under the care of Mr. Hilton. He stated that, about twelve hours previous to his admission, whilst endeavouring to move a sack of flour which stood upon another below it, he fell with it upon him, and hurt himself, and had been getting worse ever since. He admitted that he had been labouring under a cold for three days previously, but that he had not thought anything of it, neither had he at all attended to it. The boy was extremely ill, and suffering under most urgent and serious symptoms. His breathing was short, hurried, and laborious, and each inspiration attended with a catching pain on the left side; his pulse was exceedingly quick and irritable, his abdomen tense and tympanitic, and his expression anxious. He complained of severe pain when pressure was made on the ribs over the region of the heart; but no fracture could be detected by either of the means ordinarily employed for this purpose; he was, however, too ill and distressed to be pulled about and examined minutely. For the same reason, also, but little definite and satisfactory information of the physical condition of the organs within the chest could be derived from a stethoscopic examination; and, independently of this obstacle, there was such a loud gurgling and mucous rattle, as to be heard all over the chest, and to overcome any other morbid sound that might exist. There was extensive dulness on percussion, and an absence of or an overpowered respiratory murmur over the base of both lungs; and he had the flushed face, the injected eye, and the suppressed aspect or appearance of pneumonia; for which he was most properly and judiciously treated by Mr. Hilton, who ordered him:—Liq. ant. pot. tart. ʒj., liq. ammoniæ acetatis ʒss., aqua ʒss., secundâ quâque horâ.

The next day, (Nov. 29th,) his breathing being more hurried and embarrassed, his pulse quicker—140—and his symptoms altogether more urgent, and diagnostic of pneumonia, he was bled ad uncias octo, and directed to take, in addition to the medicine ordered yesterday, hydr. chlor. gr. i., pulv. ipec. co. gr. ij., secundis horis. There was the same gurgling noise attending the act of inspiration as on the previous day; but he spat nothing, seemingly not having sufficient power to get it up. He has passed water freely, but has had no motion. After the venesection, his pulse fell to 126, and became more full, and his respiration easier and less frequent. This improvement was, however, but transient, and his symptoms soon regained their previous formidable character, and grew more and more aggravated, as time advanced. On the following day, (Nov. 30th,) his pulse became more feeble, his dyspnœa increased, and he was at times delirious. When spoken to, he muttered out a reply in unintelligible half-finished words, from his extreme shortness of breath; his system getting weaker, and his breath more affected as midnight approached. At 11 p.m. he expired.

The symptoms under which this patient laboured obviously pointed to pneumonia as being his most serious and urgent disease, and that which ultimately terminated his existence. The cause of it was sufficiently and efficiently explained, by giving credence to the veracity of the boy's statement of the accident that had befallen him, and the fair presumption that he had fractured one or more of his ribs, near their vertebral attachment—an injury which cannot always be so readily detected, even when the patient is in a condition to undergo a careful examination—and that a piece of bone had protruded into the thoracic cavity, had set up inflammation in the lungs, and produced the symptoms which terminated his existence. With regard to the tympanitic state of the abdomen, under the conditions of the accident, it might have resulted from rupture of the spleen, or many other things; but there was no indication whatever besides, to lead to the supposition of the existence of any injury of the abdominal viscera. Thus far, everything seemed clear and comprehensible, and completely harmonized with the statement of the patient. But, as will be subsequently shown, the *post-mortem* examination revealed no external injury of any kind, and, on making further inquiries, it appears extremely improbable that the boy had sustained the accident described; and, if it did occur, it could not have had any connexion with his symptoms.

Inspectio Cadaveris Thirty-six Hours after Death.—The body was in an advanced state of decomposition, especially the abdomen, which was much distended; and, on carefully making an external examination, no injury or fracture could be detected by any tactile manipulation. The belly being opened, and the sternum and costal cartilages removed, the following were the morbid appearances discernible. The left pleuritic cavity contained a large quantity of a cacoplastic or buttery lymph, which covered the whole of the posterior and lateral surface of the left lung; and about six or eight ounces of serous fluid. No effusion into the right side of the thorax, but both right and left pleuræ alike showed marks of inflammation by their greatly increased vascularity and injected appearance. The left lung compressed; the inferior lobe much congested; the lower portion of the upper lobe in a state of acute hepatization, passing into the third stage of pneumonia, the cut surface being granular, and of a dull red colour, with small patches of grey here and there dispersed, and the tissue being consolidated and softened, and easily broken down between the fingers and thumb. At the apex of the upper lobe, was a small portion of healthy lung, which greatly contrasted with the diseased part of the organ. The right lung not compressed like the left, but its lower lobes much congested and engorged with blood, constituting the first stage of pneumonic inflammation; and, on being squeezed, a small quantity of frothy bloody serum exuded. At the summit of the right lung, as on the left, was a small portion of perfectly healthy tissue. Bronchial tubes throughout generally dilated, and presenting an evidence of recent bronchitis. Slight effusion into the pericardium, with a few flakes of coagulable lymph floating in it. Heart normal; a little *anti-mortem* ecchymosis on the descending or thoracic aorta. Liver healthy, but swollen, and presenting on its upper surface some white streaks, corresponding to the position and direction of the ribs, and produced by the pressure of these hard and resisting structures on a swollen and somewhat congested viscus. This is a condition of the liver frequently met with in the *post-mortem* room, and which used to be erroneously ascribed and put down to an inflammatory condition of it. The kidneys and spleen healthy. The intestines tympanitic, and no external injury either of the osseous or soft parts of the abdominal or thoracic parietes.

It was thus evident and conclusive, from *post-mortem* appearances, that this patient had been suffering from the fatal disease which had been diagnosed, and for which he had been judiciously but fruitlessly treated during life. It was also manifest that it had not arisen from any traumatic mischief, obvious that it was an idiopathic disease, and palpable that those circumstances, which seemed before death to stand in the relation of cause and effect, after death turned out to have no connexion with each other, but merely coincident; and these facts were clearly and satisfactorily corroborated, and the whole matter elucidated, by further evidence afterwards obtained from the boy's friends, which, it will be seen, not only does not correspond with, but contradicts, the previous history that he had given. It appears that he had always been a delicate lad, and frequently subject to cough; that, above a week previous to his admission into the hospital, he had caught a severe cold, and had complained of slight pain in his left side. On the night of Oct. 26, he had gone to bed as usual, apparently pretty well, but the next morning complained of feeling very ill, and requested his master to allow him to remain in bed, which was acceded to; but, as he got worse during the day, his master sent him to a neighbouring medical man, and afterwards home to his own friends, where he remained that night, and from whence he was brought to the hospital the

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next morning, with the symptoms above described. His master positively asserts that he could not have met with the accident he mentioned, and that he himself knew nothing, and had heard nothing about it previous to his admission. From this, it would seem extremely probable that the account of the accident was fictitious, and that it was invented to insure his immediate reception into the hospital. It certainly is an interesting circumstance, to observe how clearly his symptoms during life were explicable, and even supported the occurrence of such an incident, and that nothing should transpire to throw doubt on the veracity of his statement.

LONDON HOSPITAL.

By NATHANIEL WARD, Esq., F.R.C.S.,
Assistant-Surgeon to the Hospital and Demonstrator of Anatomy in the School;
AND
ROBERT BRUDENELL CARTER, Esq.,
House Physician.

FRACTURE OF THE OUTER CONDYLE OF THE HUMERUS,

WHICH WAS SO DISPLACED AS TO SIMULATE DISLOCATION OF THE HEAD OF THE RADIUS FORWARDS.

A lad, aged 6½ years, became an out-patient under my care several months ago, having sustained a severe injury to the left elbow joint. There existed at the front and outer part of the articulation, a considerable eminence, which, on examination, was found to be the outer condyle displaced considerably upwards and forwards, so as to have the appearance of the radius when dislocated in the latter direction. There was considerable pain and swelling in and about the joint, so that it was impossible to replace the fractured portion. The extremity was placed in an angular splint, a bandage very lightly applied from the forearm upwards to the arm, and the application of cold lotion recommended. He met with the accident by being pushed down while playing with some of his companions, and falling on the outer part of the elbow. He was picked up by two women, who, recognising some deformity in the joint, industriously set to work and manipulated rather roughly, in order to remedy it. The day following the accident the contour of the joint was uniform, owing to the considerable inflammation that had supervened. It became necessary to have free recourse to leeches on three or four separate occasions, their application being followed by the constant use of cool, evaporating lotions. On the thirteenth day the inflammation had entirely subsided, the lotion was omitted, and the arm kept quiet in the angular splint. A large quantity of plastic effusion appeared to have taken place in and around the joint; the displaced condyle alone appearing prominent, and having *so primâ facie* a resemblance to a displaced head of radius forwards, that many who saw the case came at once to that conclusion. On grasping the hand of the patient, however, and carefully rotating the radius inwards or outwards, with one hand, and pressing with the fingers of the other on the prominence in front of the elbow-joint, the movements of the radius were not found to be transmitted to that projection. A week after the subsidence of the acute attack of inflammation, the limb was bound up in cerat. hydrarg. compositum, &c. The application was renewed every fortnight during the period of eight weeks. The splint and bandages were then laid aside, and passive movement of the limb enjoined, the elbow having been found to have regained its normal dimensions from the absorption of the plastic effusion, and the displaced external condyle having become consolidated with the shaft of the bone. The condyle was found to have been displaced to the extent of three-eighths of an inch from its natural relation with the internal condyle, as evidenced by the measurement of the space between the internal and external condyles of the opposite arm. The ultimate result of the case was in every respect more satisfactory than could have been expected from the serious nature of the injury, and the severe inflammation that ensued on it; for, several months after the accident, and this patient's dismissal from the hospital, it was found that the forearm could be all but extended; that flexion could be performed to an angle of 45°, and that rotation inwards and outwards of the forearm were perfect.

Remarks.—Fracture of the outer condyle of the humerus, though not so frequent as of the internal, is by no means rare; but it is not usual to meet with cases in which the deformity from displacement is so great as in the case above detailed, and the fractured portion so displaced as to resemble a dislocation of the radius forwards. When displacement does occur, as we ordinarily meet with it, it is generally slight, capable of easy remedy, and the periosteum and soft parts in immediate attachment have not been so far lacerated and injured as to be incapable of retaining *in situ* the displaced portion when reduced. In this instance, on the contrary, from the original violence of the injury, the severe manipulation the patient had been subjected to after the accident, and the consequent inflammation, the reduction of the condyle could not be effected. A very guarded prognosis was given; and, in order to give the bone every chance of uniting, the limb was kept unmoved during eleven weeks, at the end of which time it was found that consolidation had taken place. Ultimately, the movements of the joint were but little interfered with, which in all probability would not have been the case had passive movement been had recourse to earlier. In cases of extra-capsular fracture not involving the joint, the prognosis is always favourable, and the union safe and speedy. Of intra-capsular fracture, the displacement is generally slight, but the union more tedious and less certain than in the former case, requiring longer time for the limb to be kept in splints, and frequently terminating in mere ligamentary union, this result being often the consequence of passive movements having been had recourse to at too early a period after the injury.

Under the most favourable circumstances the re-union of the condyle with the shaft from which it has been separated, when the fracture extends into the joint, and is accompanied with displacement, is very tedious. I have now under care another case of this kind in a healthy lad between ten and eleven years old. The limb has been carefully kept in an angular splint during six weeks. A careful examination, however, detects that only ligamentous or fibrous union has as yet taken place.

FRACTURE OF THE SURGICAL NECK OF THE HUMERUS.

An engine-driver, aged thirty-one, came under my care as an out-patient, suffering from the effects of the above accident. He had the day previously fallen forcibly to the ground with his arm underneath him. He had intense pain after the accident, and passed an extremely restless night. The axis of the arm was directed downwards, outwards, and slightly backwards, being further removed from the side, than if the head of the humerus had been dislocated into the axilla. The limb was an inch shorter than the unaffected one. The hollow at the base of the axilla was considerably encroached on. A flattening existed a little above the humoral attachment of the deltoid, and an apparent preternatural fulness immediately above this depression, extending to the borders of the acromion. A common pad, about 16 inches long, was folded on itself at its upper part, the upper border being stitched tightly to the body of the pad, so that a loop was thus formed, and through it a long piece of a bandage was passed and fixed firmly to the pad. The bandage, with the pad attached, was then placed into the axilla. The front extremity of the bandage was then passed behind the back extremity in front of the neck, and both were tied together in the opposite axilla, thus firmly fixing the conical pad in the axilla. The arm was then approximated to the side, and from the action of the conical pad overcoming the action of the pectoral on the one hand, and the latissimus dorsi and teres major on the other, the deformity was reduced, and the intense pain that had been complained of ceased. A splint the entire length of the arm, with a pad firmly fixed to it at either extremity by strips of plaister, was next placed on the outer side, and supported in its position by two or three strips of plaister encircling the arm and the body of the axillary pad. The forearm was next bent on the arm, placed over the chest, and the whole limb was bound to the side by a carefully adjusted bandage. Union of the broken bone had taken place in four weeks, without the slightest deformity, and at the end of twelve weeks the man could work almost as well as ever. The symptoms of fracture of the neck of the humerus are generally so well marked that it would appear hardly necessary to insist on them in contradistinction to those characteristic of dislocation of the head

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of the humerus into the axilla. Thus, the shortening of the limb, the fulness beneath the acromion, in consequence of the presence of the head of the bone, the depression beneath this, and the mobility in every direction of the lower fragment, are at once distinctive. On referring to my note-book, however, I find the details of the following case, which was sent some years back into the London Hospital, as a peculiar case of dislocation of the head of the humerus, for the reduction of which various and repeated attempts had been ineffectually made. The case runs thus:—"A lad about 15 or 16 years old had, four or five weeks before his admission, received a violent blow on the upper part of the arm. There existed fulness immediately below the acromion, and lower down a depression, caused by the angle of union, and the action of the pectoral and latissimus muscles. The elbow was abducted, but to a greater extent than in dislocation into the axilla. Between the upper part of the shaft (the smooth internal surface of which could be distinctly felt in the axilla, and the head of the bone, which occupied its normal position) existed an interval of at least three inches, occupied by the opposed extremities of the bone, and the uniting callus. The movements of the limb were materially impeded. In the treatment of fracture of the surgical neck of the humerus, the great indication is to counteract the action of the pectoral and latissimus dorsi, and to keep the limb as fixed as possible. The first indication was admirably answered by the folded pad in the axilla, which was of such a form, and so fixed in its position, as to force out the upper extremity of the lower fractured portion, and retain it effectually *in situ* without shifting, by the arm being bound through the medium of an outer splint, and a carefully adjusted bandage to the side of the chest. The shifting of the pad from the splint, and the latter from the arm, was prevented by the use of broad pieces of plaister applied at intervals. It may appear but slightly important to allude to these minor details of the treatment, but, in this *particular* form of *fracture*, the comfort of the patient, and the ultimate success of the case, are determined, in a great measure, by properly carrying them out; and, if the above detailed line of treatment be so adopted, it will be found preferable to the usual application of four splints to the arm. N. W.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening, January 18.—Medical Society of London. *Subject*:—Dr. Henry "On the Assimilative Force in Relation to Hypertrophy and Atrophy. Eight o'Clock.
Royal Botanic Society. Quarter to Four o'Clock.

Monday, January 20.—Statistical Society. *Subject*:—Dr. Starke, F.R.S.E., "On the Vital Statistics of Scotland." Eight o'Clock.
Chemical Society. Eight o'Clock.

Tuesday, January 21.—Linnean Society. Eight o'Clock.
Zoological Society. Nine o'Clock.
Pathological Society. Eight o'Clock.

Wednesday, January 22.—Geological Society. Half-past Eight o'Clock.
Hunterian Society. Eight o'Clock.

Thursday, January 23.—Royal Society. Half-past Eight o'Clock.
Royal Society of Literature. Four o'Clock.
King's College Medical Society. *Subject*:—Albert D. Smith, Esq., "On Fatty Deposits." Half-past Seven o'Clock.

Friday, January 24.—Royal Institution. *Subject*:—Professor Faraday, "On the Magnetic Characters and Relations of Oxygen and Nitrogen." Nine o'Clock.

Saturday, January 25.—Medical Society of London. *Subject*:—Mr. R. Wade, "On the Treatment of Stricture of the Urethra." Eight o'Clock.
Guy's Hospital Physical Society. Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, JANUARY 18.

THE PERINEAL SECTION.

It is high time that the question of the propriety of the perineal section in cases of Stricture of the Urethra should be decided by the Profession, and an angry controversy finally set at rest; and yet we must confess, that those who have taken upon themselves the labour of examining the accuracy of Mr. Syme's statements, and the applicability of his operation to the cases in which it is recommended, have no small excuse for their warmth, when they view the pertinacity with which the Edinburgh Professor of Clinical Surgery throws the weight of his position into the balance for deciding upon the introduction of a painful and dangerous proceeding, in lieu of one far more easy of accomplishment and generally allowed to be equally successful in its result.

Mr. Syme has been an especial favourite with his pupils—many of these, now become his professional friends, he has been long accustomed to see

Addictos jurare in verba magistri;

and this has spoiled him for carrying things smoothly with those of his brethren who have not imbibed the feelings with which he has inspired his pupils. It is time, however, that Mr. Syme had discovered it to be the duty of the Profession not to receive implicitly a proposal such as he has made without subjecting it to a severe ordeal. We tell him, that nothing great was ever done in surgery, or in any other human pursuit, without opposition; that no so-called discovery, unless in matters of the simplest character, should be adopted until it has been proved in the fire of controversy; that the opposition may not always be rational, because what is rational and what is irrational in opposition, does not always appear until the case, like a new-built house, stands clear of the rubbish collected around it.

Mr. Syme should consider how large is his demand upon our faith:—he asks us to believe, not only that the perineal section is a means of cure in obstinate forms of Stricture; but that, even in milder cases it is preferable to dilatation, as more speedily, permanently, and safely affording relief! and this too, while the great majority of the Profession believe, as a rule, that when a catheter can be introduced into the bladder, the urethra being entire, there is no need of any external incisions with the knife; but when a catheter cannot be introduced—and here, alas! even here we are upon debatable ground; for there are some who have the impudence and the presumption to assert, that in their hands the catheter never fails to find its way along the diseased urethra.

We will not doubt that Mr. Syme, to the best of his knowledge at the time, has given a true account of the cases by which, in his work on "Stricture and Fistula in Perinæo," his proposal is supported. But the Profession have a right to demand that the subsequent information he may have received, as to the less favourable final result of any of these cases, should be made public. After the statements made by Mr. Lizars, we unhesitatingly declare that new evidence is required from Mr. Syme.

Many rumours have reached us, that Mr. Syme's cases are not so universally successful as reported. We hear that no later than the 8th of this month a fatal case occurred in the Edinburgh Infirmary, which had been operated upon on the 3rd! and that the patient died, having been twice subjected to transfusion of *blood!* The *onus probandi* is with Mr. Syme; who, until proof to the contrary is given, must consent to lie under the very serious charges of carelessness and inaccuracy, if not wilful misrepresentation. It is to Mr. Lizars that the credit is chiefly due, of having brought these matters before the public; and we feel it our duty to tell Mr. Syme, in all sorrow that one so circumstanced should deserve it, that the undignified and arrogant

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manner with which he has met the objections to his proposal, has had the effect of weaning from him the respect and esteem with which he was once regarded by men his equals in station, talents, and professional skill.

For ourselves, we fully agree with Mr. Henry Smith, who says, in one of his papers on Stricture in this journal :—

"Mr. Syme has clearly pointed out, in his late work, and it must be obvious to every surgeon who is brought into frequent contact with cases of stricture, that certain instances are met with, in which the process of dilatation, however carefully carried on, will be of little or no actual service, in consequence of the disposition to contraction. An instrument of considerable size may have been introduced at one time in such a case, and in a few hours or days, only one of the smallest size can be introduced, and that with great difficulty and with great suffering on the part of the patient. This state of things will go for years and years. I have received with interest and sympathy the graphic description of the long train of sufferings which patients have drawn up for me, both orally and in writing. It is under such circumstances that Mr. Syme has recommended the free division of the urethra by the perinæum. It must be admitted that inestimable benefit has resulted to some of the patients who have undergone this operation. The first case recorded in Mr. Syme's book, and the two cases I have here recorded as occurring in the private practice of Mr. Fergusson, are satisfactory evidences of this; nevertheless, the fact that success has occurred in some instances, ought not to authorise the surgeon to adopt it so freely as has been recommended, if it is shown that death may result from it, and that there are other means in his power, by which he may attain the same result with equal facility and with much less danger to the life of his patient."—*Medical Times*, June 1st, 1850. P. 400.

Thus far and no further do reasonable men agree with Mr. Syme. The great and important question, then, still remains unsettled,—and to this one count we must consider it reduced,—namely:—Can any satisfactory ground be shown for treating moderately obstinate stricture by perineal section, instead of by simple dilatation, or by dilatation aided by the use of potassa fusa?

On carefully examining the whole controversy, we are satisfied that no progress has been made by all the angry charges and recriminations which have been bandied about. We feel assured, that it remains exactly in that state in which it was left by Mr. H. Smith's admirable papers in this journal, and from which we have quoted These papers, we say, supply the starting point from which this investigation should be continued. They admit the principle of Mr. Syme's operation, and the great benefit to be derived from it in certain cases. The difference to be settled, then, is not a difference of kind, but of degree. And this, we desire the authors of future communications to our pages on the subject will bear in mind. It is folly to waste time in idle reproaches; with such, our pages must be unsullied. As to the past, if we have spoken harshly, our harshness was not unprovoked; and Mr. Syme, we should think, must feel conscious that his words are not always free from bitterness.

THE *SOI-DISANT* "RECIPROCITY" CLAUSE OF THE INSTITUTE'S REFORM BILL.

It may be laid down as a fixed principle, that no Bill introduced into Parliament for the purpose of regulating the Medical Profession, will be received as a final measure, unless it contain a clause whereby the same privileges are granted to all possessing the same qualification—unless a licence to practise in Scotland be at the same time a licence to practise in England—unless after one examination a man be held to be legally qualified in any and every part of the United Kingdom, not only south but also north of the Tweed,—not only east but also west of the Irish Channel. Reciprocity of practice, then, as it has been termed, must form an essential feature of a new Medical Reform Bill. Justice demands this, and without it neither the public nor the Profession will be satisfied.

The tenth clause of the Bill drawn up, or adopted by the National Institute, purposes to obtain "reciprocity" of practice. That the Profession may fully comprehend the kind of "reciprocity" proposed, and at the same time the security offered for the efficient education of the future General Practitioners, we here reprint that all-important clause, not only as it now stands, but also as it was originally printed; for the Bill, and this clause in particular, has undergone some modification since it first appeared.

10th clause as originally framed :—

"And be it enacted, That the Council shall have full power from time to time to admit into the said College as members thereof, without examination, but on payment of such a fee as they shall from time to time think fit, but which shall not exceed that which shall be payable by those admitted after examination, any person shall have attained(a) his age of *twenty-two* years, and shall be able to adduce evidence satisfactory to the Council that he has a medical or surgical degree, diploma, certificate, or licence, from some university, college, or licensing body, of the United Kingdom, duly authorised for the granting thereof, and that he has been engaged for at least *five* years in a course of Professional study embracing all the subjects on which an ordinary candidate for admission into the College would be examined, and also that the examination which he underwent was of a standard as high as that of the examination imposed by the College of General Practitioners on ordinary candidates."

10th clause as amended :—

"And be it enacted, That the Council shall have full power from time to time to admit into the said College as members thereof, without examination, but on payment of such a fee as they shall from time to time think fit, but which shall not exceed that which shall be payable by those admitted after examination, any of the persons following, that is to say, Doctors or Bachelors of Medicine who shall have obtained their degrees from any university in the United Kingdom entitled to grant degrees, Graduates or Licentiates of Medicine of the several Universities of Oxford and Cambridge, and members of the Royal College of Physicians in London; provided nevertheless, that in all these cases the candidates for admission shall have attained his age of *twenty-two* years, and shall be able to adduce evidence satisfactory to the Council that he has been engaged for at least *five* years in a course of professional study embracing all the subjects on which an ordinary candidate for admission into the College would be examined, and also that the examination which he underwent by his degree or licentiateship was of a standard at least as high as that of the examination imposed by the College of General Practitioners on ordinary candidates."

Thus, it is proposed, that every graduate of St. Andrews, Aberdeen, and Edinburgh, that every member of the Faculty of Glasgow, shall receive a licence to practise without further examination, on the payment of a fee, which fee "shalt not exceed that which shall be payable by those admitted after examination." Not only, then, are the present graduates to be admitted to all the privileges of membership of the new College; but all those who in time to come may cover themselves with the shield of an Aberdeen or other equally valuable degree, may, on the payment of a fee, legally practise as General Practitioners.

Notwithstanding that the Council will require under this Bill satisfactory evidence that the candidate "has been engaged for at least five years in a course of professional study," there is reason to fear the university that would confer degrees for the smallest amount of knowledge would,

(a) *Sic* in orig.

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in fact, fix the maximum of the professional education of the great mass of the future practitioners of the United Kingdom. The student would naturally reflect, should this Bill become law, "If I study in England, I shall have to undergo a severe examination before strangers, and at last obtain only an inferior title, with a licence to practise; while, if I study in Scotland, I shall gain, by a less severe examination before my own teachers, the title of doctor, and the same licence to practise." Under these circumstances, how many students would present themselves for examination before the examiners of the London College? Surely their number would not be legion; and, unless supported by the fees of Scotch graduates, the new college would, in its youth, be like the college in Pall-Mall is in its decrepitude, not only poor, but even near unto bankruptcy; thus, the English schools of medicine, we repeat, would inevitably find themselves deserted. Where, if this Bill were law, would the boasted reciprocity be? The Edinburgh graduate would, without examination, be licensed to practise in England, however meagre his qualifications; the London practitioner, however high his merit, would, unless he had attended certain classes in the university, and undergone an examination before Edinburgh Professors, be refused a degree. Surely this would be "reciprocity" all on one side.

Such is not the "reciprocity" we desire, the public need, and the Profession demand. Let there be equality in all respects between the Scotch, English, and Irish examinations and privileges. We have a strong opinion that if measures of conciliation and compromise fail, the Profession will be compelled to adopt the policy of instituting *one* Board of Examiners for all three kingdoms; that Board to license to practise only after examination, and irrespective of University degrees and University professors; that Board to confer on all who pass it one title and one privilege—unity of qualification, equality of right. Then its licentiates would obtain, as now, degrees when, where, and how they please; such degrees being, as hitherto in England, *honorary* merely. Let us not be misunderstood; our desire is that there should be "reciprocity" of practice, but then, it must be conjoined with equality of qualification and title; those educated south of the Tweed must prove themselves as well versed in their profession as those educated north of that stream; those in Dublin as able as those in London; and let no fictitious value in the shape of a title be bestowed on the one which is not conferred on the other.

ST. MARY'S HOSPITAL.

Nearly twelvemonths have elapsed since the Profession were given to understand that the medical staff of this hospital would shortly be appointed. June was then named, then August would certainly be the time, the builder volunteering to get the building ready for them in that month. Still time wore on; Her Majesty's Post-office was afflicted with a plethora of testimonials; there was much talking, much canvassing, some heartburning, but very little doing. The builder seeing others taking things coolly, relaxed in his well meant efforts; and thus the year wore out without the appointments being made, or the hospital completed. The partridge season being over, candidates were at length advertised to send in their testimonials by the 28th of last December, on which day, the Committee appointed for the purpose were to meet for the responsible duty of opening them; but, as it was only a matter concerning the interests of some thirty or forty medical men, (many of whom had for months been looking forward to that day with heart-sickening expectation,) when the Committee met, there were not sufficient to form a quorum; so that, after a little jocosity, the matter stood over for another week. Meetings have, however, since taken place; but, if we were to judge from the past, we may reasonably expect their Report in about a month.

Now we, on the part of the candidates, protest against one hour's unnecessary delay in bringing this matter to a conclusion; much valuable time has already been wasted, and some warm friends to the Institution have sadly cooled. Intended subscribers have buttoned up their pockets, and zealous supporters have been lost. The Committee have an important duty; but it is one which, having been undertaken, should be discharged to the utmost of their ability, without favour or affection. They should meet *de die in diem* till they have decided on the merits of the candidates, and prepared their report. We will not attempt to influence their choice, but this we may say, that if they are desirous of establishing the Hospital on a firm and substantial basis, and of creating a School which shall take high rank in this Metropolis, they must select gentlemen who are thoroughly and practically acquainted with their duties; men of position and spotless reputation, capable of reflecting credit on the establishment, whether in the wards of the hospital or in their various departments, as teachers of those whose practice and success in life will be materially influenced by the precepts inculcated, and the examples presented, by those charged with their instruction.

A "REPUDIATING" PATIENT.

The time-honoured maxim, that the "labourer is worthy of his hire," does not appear to be in favour with a correspondent of the *Times* newspaper, who signs himself "Anti-Drench." This wise individual wishes our contemporary to follow up its crusade against the "butchers" with an attack upon the "doctors." He would, apparently, like to get both his butcher's meat and his medical advice for nothing; and, if he had his wish, would no doubt grumble excessively at having to pay the baker. It appears that, in order to cut down the doctor's bills, this honest and generous man protested against his medical attendant charging him for medicine; and now feels desperately aggrieved when he finds the same amount abstracted from him by the horrible contrivance of "visits." Not satisfied with expressing, in no measured terms, his dissatisfaction with this procedure, our courteous assailant lavishes his vulgar abuse on the Profession, as a set of intriguing busy-bodies, whose professional practice is confined to frightening "mamma," petting "Master Charles," and gossiping with nurse; and so screwing another five shillings from ill-used Mr. "Anti-Drench."

The facts, however, of the letter, as far as we can understand them, are these: Mr. "Anti-Drench" is a gentleman of 300*l.* or 400*l.* per annum; he has a wife and two children, and his doctor's annual bill amounts to a little more than double his Income-tax. He admits to have received during the year some 150 visits from his surgeon, to whom he pays 20*l.*! He feels excessively sore that his doctor should demand for a year's attendance as much as the Government take from him in a single tax.

We may safely leave the case to its own merits. If the maddest financial reformer can make out that the Medical Profession is overpaid, we will permit Mr. "Anti-Drench" to follow unmolested his generous impulses towards his fortunate attendant; but we doubt whether even the most ardent economist can pronounce 20*l.* a year too much for

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150 visits, or decide that the gentlemen to whom the public entrust their health and their lives, are to be considered in the light of sharp tradesmen, whose only anxiety is, to make unnecessary visits to their patients, and to screw out the largest fees possible from their unprotected victims.

We cannot but feel astonished that a sensible paper like the *Times* should have admitted so silly a letter into its columns. The *Times* seldom begins a complaint without having some foundation for it; still more seldom does it commence an attack on a system by a weak and foolish tirade, like that of this sagacious "Anti-Drench." If the *Times* thinks the doctors are overpaid, we can unfortunately give it ample evidence to the contrary; but we hope, when it next permits any letter respecting us to go forth to the world in its widely-diffused columns, it will at least demand from its correspondents some positive facts to which we may reply, and not sanction, even by implication, such intangible, absurd, yet malicious abuse as that of its contributor, "Anti-Drench."

BIBLIOGRAPHICAL NOTICES.

Of the Crystalline Lens and Cataract. By Bernard Edward Brodhurst. Pp. 243. London. 1850.

The Viennese school for opthalmology has long maintained a high position among establishments of a similar class. The names of Jaeger and Rosas are of world-wide reputation, and students are attracted to the scene of their labours from all parts of Europe. Mr. Wilde, of Dublin, in his very instructive work on the medical schools of Austria made us acquainted with many particulars relating to these Professors, their practice, and the Josephinum Hospital; and more recently Mr. Brodhurst has been following in his steps.

One of the striking features of the work before us is a totally new arrangement of cataracts, by which all the old-fashioned, and in many respects convenient distinctions of consistence are ignored. For our part we deprecate the tendency to change so prevalent at the present day; innovations are not by any means necessarily improvements, and we cannot admit that the reasons alleged by the author for doing away with the nomenclature of hard, or soft, or fluid cataracts, are satisfactory to us, or likely to be generally recognised; such distinctions are so obvious and so convenient that we see no good purpose gained by doing away with them.

The author, to our surprise, countenances extraction in cases of *soft* cataract. Why so formidable a proceeding, and one attended with so much violence to the eye should be adopted, when the infinitely safer and milder operation with the needle is always sufficient, we are at a loss to conceive, and probably Mr. Brodhurst will arrive at the same conclusion when he has had more experience.

The directions for the operation of extraction are clear and explicit; and the following remarks are judicious, as condemning a practice as idle as it is dangerous:—

"When the operation is finished, and before the patient is led to bed, it is not unusual to test the power of sight. It was an old practice, especially in Germany, to fill a glass partially with water, and bid the patient point to the height at which it stood in the glass. Now, it is usual to hold the spread hand before the eyes, that the fingers may be told. If a patient be very anxious to know the result of the operation, it is better to gratify him; but it is wise to abstain from this display of curiosity. An old lady having been operated on, and two cataracts extracted, to which she submitted, and was most tractable, was about to be led to bed, when the operator requested her to open her eyes. She immediately responded, and exclaimed, astonished, that she could see him perfectly; she congratulated him on his good looks, and proceeded to examine the room; thence her eyes were directed to the garden beyond, and neither entreaties nor threats were sufficient to repress the old lady's inquisitiveness. It was impossible to keep her eyes closed, when at last she consented to be removed to bed. Twice the corneal flap had to be replaced, having fallen down on itself."—P. 195.

Unfortunately, the sequel of the story is not told, and we are left in melancholy ignorance as to whether this obstinate old lady paid the penalty of her curiosity, or whether she in due time mounted her glasses, and renewed her compliments to the doctor on his becoming appearance.

Though this work bears the impress of having been written rather from the observation of others than from the author's own experience, and though it contains many opinions with which we cannot agree, yet it bears evidence of care and labour, and, as such, is deserving of approbation.

A Practical Treatise on the Therapeutic Uses of Terebinthine Medicines. By Thomas Smith, M.D. 1850. Pp. 95.

A practical treatise, in which the utility of turpentine, of its derivatives, is illustrated by cases. Dr. Smith uses turpentine *externally* in the form of a camphine bath. Two pounds of carbonate of soda, 4 to 8 ozs. of camphine (2 ozs. for children and delicate women) and half an ounce of oil of rosemary, with a sufficient quantity of water, form a slightly stimulating bath, in which the patient may remain for ten or fifteen minutes. On emerging, the breath is strongly tainted with a terebinthine odour, and this may continue for 24 hours. As a counterirritant, he employs warm oil of turpentine. *Internally* as a purgative, he prescribes oil of turpentine in doses never larger than half an ounce, with some other aperient. As a diuretic he gives it in doses of from 5 to 30 drops. The diseases in which Dr. Smith has found it especially useful, are: hæmatemesis, (illustrated by 4 cases), epistaxis, (2 cases), hæmaturia, (3 cases), hæmorrhage from the tongue, (1 case), purpura hæmmorrhagica (1 case, which appears to us a case of scurvy, not purpura), hæmoptysis from tubercles in most instances, (9 cases), worms, (4 cases), lumbago, (4 cases), gout, (2 cases). In some other affections, as pertussis, he has found benefit from the inhalation of the vapour. It therefore appears that turpentine is chiefly beneficial in hæmmorrhagic diseases; and Dr. Smith is no doubt correct in calling it the best styptic we have. We would, however, direct his attention to the fact that his cases are few in number, are not accompanied by a corresponding series of cases treated by other methods, and are occasionally related in so loose a way, as somewhat to lessen our confidence in the narrator. If therapeutics are ever to be improved, it will not be by such loose observations as that "one case of hydrocephalus, a little boy, seven years of age, seemed to be very much benefitted after the administration of a few enemata containing this drug, and the child eventually recovered."—P. 59. In no other science but medicine would such a style of *observation!* be admissible.

Chemistry. By George Wilson, M.D., F.R.S.E. Chambers' Educational Course. Edin. 1850. Pp. 316.

This is one of the excellent series now in course of publication by Messrs. Chambers. The present little work is very clearly written, and will no doubt be highly useful to those who would find the larger treatises on chemistry too copious and too profound. The only objection we can possibly make to the work is whether even now it is not too minute for the class of readers for whom it is intended; whether in fact Dr. Wilson has not fallen into the very common mistake of somewhat overdoing his subject, although he sets out with the express intention of avoiding any mistake of this kind. But if so, the clearness of the style and the abundance of illustration redeem the error.

A Manual of Qualitative Analysis. By Robert Galloway, F.C.S. 1850. Pp. 119.

Considering the works of Parnell, Fresenius, Wills, and others, on Qualitative and Quantitative Analysis, we were at first sight disposed to question the necessity for another work on the same subject, or, we should say, on a part of the same subject; but, after the perusal of Mr. Galloway's little treatise, we somewhat altered our opinion, and do not hesitate now to say that it will be found useful for those who are commencing the study of chemical analysis. There is a less appearance of technicality about the work than about those we have above alluded to; and while equally exact, it is more easy to follow.

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Epidemics Examined and Explained; or living Germs proved by Analogy to be a Source of Disease. By JOHN GROVE, M.R.C.S.L. London. 1850. Pp. 192.

We cannot allow that Mr. Grove has afforded the least *explanation* of epidemic diseases, nor can we even give the praise of having minutely *examined* them. We find nothing novel in the work before us; and the leading idea or hypothesis has been already much more fully worked out by Dr. Mitchell, to whom Mr. Grove hardly does justice, and by Dr. Cowdell, to whom no allusion even is made, than by Mr. Grove himself. Yet the work is a clever one in many respects, and will repay perusal.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

ERRORS IN DIAGNOSIS.

It is well known that in persons who have had syphilis, both the patient and his medical attendant are occasionally too apt to look upon certain conditions which may be altogether normal, or at any rate nothing more than varieties of the normal state, as the secondary or tertiary consequences of the disease. M. Diday has recorded all such mistakes committed by the patient or surgeon which have fallen under his notice, and gives the following list of them. He has known:—

The greyish colour of the mucous membrane at the commencement of the urethra taken for a chancre at that point.

The enlarged papillæ at the base of the gland taken for vegetations.

The enlarged follicles of the scrotum for syphilitic pustules.

The mucus, the normal product of erection, for a gonorrhœal discharge.

The sebaceous secretion of the gland, and the discharge of the prostatic fluid after defecation, for the same disease.

The caruncule myrtiformes for tubercles.

The clitoris (a fact scarcely credible if the author did not affirm it from personal knowledge) for a mucous tubercle.

The folds bordering the ranine veins for syphilitic excrescences.

The glands at the base of the tongue for venereal pustules.

The glands existing at the point where the tongue joins on to the anterior palatine arch, also for venereal pustules.

The longitudinal fissure of the tongue for a tertiary fissure.

The folds of mucous membrane behind the superior incisor for excrescences.

The longitudinal projection of the palate, normal among many persons, for an exostosis.

The lateral deviation of the uvula, also normal among many persons, for disease of the facial nerve.

The lacunæ of the tonsils for chancres or gangrenous ulcers.

Some points of the palate, circumscribed by two or three vessels, for ulcerations.

The normal mucous follicles of the posterior wall of the pharynx for tubercles, and called by distinguished pathologists "follicular angina."

The caruncula lachrymalis for a vegetation.

The elevations on the back of the head, and even the condyle of the lower jaw, for the swelling of the posterior cervical glands, which announces the invasion of constitutional syphilis.

The normal projection of the inguinal glands for bubo.

The mastoid process for an exostosis.

Enlarged follicles of the skin for syphilides. — *Gazette Méd., Mai* 25.

[These observations are not particularly useful to medical men, who could never make many of the mistakes here alluded to, but they are curious, as indicating the source from which our quacks make such a harvest. A man discovers some of these appearances shortly after he has had syphilis; he has not noticed them before, consequently he gets alarmed, and perhaps goes, not to his regular surgeon, who would disabuse him in a moment, but to an advertising quack. What becomes of him then we need not say. But if ever there was a case in which Government should protect its ignorant citizens, it is in this, for a man's health as well as his pocket suffers when he falls into the hands of our brethren of the *black art.*]

MICROSCOPIC EXAMINATION OF EXUDATIONS ON THE BUCCAL MUCOUS MEMBRANE.

We extract from an able paper on Diphtheritis by M. Empis, the portion relating to the point above stated.

1. The first pseudo-membranous exudation noticed by the author is that which occurs in Muguet (one species of thrush.) This has characters altogether special, as proved by the observations of Berg, Gruby, and especially of Robin. It is made up of the spores and filaments of a cryptogamic plant, which can not only be inoculated, as shown by Berg, but can increase after removal from the mouth, as appears by an experiment of Robin. Vogel has described this cryptogame as occurring in diphtheritis as well as in thrush, but he has evidently mistaken one exudation for the other.

2. The exudation of diphtheritis presents the common characters of fibrinous exudations; viz., *(a)* a number of small interlacing filaments of fibrine, crossing each other at acute angles, and forming a more or less regular network; *(b)* a number of small irregularly rounded granules interspersed in the meshes of the network, and very little affected by acetic acid; these are the "molecular granules" of Lebert; both these structures are coloured deep brown by tincture of iodine. *(c)* In addition to these elements, there are globules of pus, and numerous epithelium cells.

3. The pseudo-membrane of scarlatinal angina presents the same microscopical characters as the diphtheritic exudation. The microscope alone can not distinguish between them. M. Empis makes also the remark, that the microscopic characters of the buffy coat of the blood, of the false membrane of pleuritis, or of the pseudo-membrane of blistered surfaces, have much in common with those of diphtheritis. But in the first we have white and red particles often, but no pus cells or epithelium; in the second there is no epithelium, and it is only in the case of the pseudo-membrane of blistered surfaces, that we have the fibrinous net-work, molecular granules, pus and epithelium cells, as in diphtheritis. Consequently here, also, the microscope at present fails to make the diagnosis, and cannot recognise when diphtheritic exudation occurs, as it will occasionally on a recently blistered surface.—*Archiv. Gén., Mars*, 1850, p. 288.

ON HYDATID BRONCHOCELE.

By Professor ALBERS, of Bonn.

When the author published the second part of his Atlas of Pathological Anatomy, he was only able to report upon a single case of this kind; and, although ten years have elapsed, during which period he has examined a great number of diseased thyroid glands, he has never met with a second case until the beginning of this year, when, in the body of a man who died, aged 60, of hypertrophy of the heart, a beautiful example presented itself. The middle connecting portion of the gland projected forwards in the form of an apple, the two lateral portions resembling ordinary bronchocele. The platysma and lower parts of the sterno-cleido and sterno-thyroid muscles were remarkably developed. A capsule was formed from the surrounding cellular texture; the thyroid arteries were very large, and the gland seemed to consist of a soft mass, inclosing hard roundish bodies. On cutting into it, a great number of cysts, varying in size from a pea to a nut, lined with a serous membrane, and containing a clear but somewhat thickish fluid, were found. On submitting this to the microscope, the *echinocci* were plainly seen. In other parts of the same lobe the walls of the cysts had become ossified. The parenchymatous substance of the gland separating the cysts was firm, almost fibrous, in some places no longer exhibiting the cellular and fibrous structure characteristic of bronchocele. It was quite evident that the cysts arose from no mere expansion of the cells of the gland, but from the presence of an entirely new structure. Both kidneys, as well as the choroid plexuses, contained hydatids also.

The hydatid tumours were of very different ages. Those of the upper part of the right lobe were quite soft, their newly-formed sacs being very delicate, and their contents fluid and thin, while those of the lower part of the same side, and especially on the left side, had their sacs ossified, and

their contents converted into hard calcareous matter. Such conversion of the hydatid into osseous substance is also observed in other parts of the body, as the lungs, peritoneum, omentum, and ovarium, examples of which are given in the Professor's Atlas. The lower portions of the gland, and especially on the left side, were those in which the hydatids, judging from their age, were first developed; and this is usually the case with regard to other swellings, fibrous cysts, and effusions of blood found in this organ—a fact which may arise from the greater supply of blood this part of the gland is furnished with, and from its greater liability to irritation from pressure.

The present case exhibits the hydatids forming within the parenchyma of the gland, while in the author's other case they were found, either between the layers of the capsule formed of the thickened cellular tissue, or between the capsule and the surface of the gland. But even in the present case, as the most bony sacs were found to be those most superficially placed, so it would appear that the first swellings attacked the capsule, and that the parenchyma was afterwards invaded. In the former case, too, one lobe only was affected; in the present, both, as well as the conjoining isthmus, all the parts of the gland being mingled inseparably together.

The knowledge of the existence of this form of bronchocele is of importance to both physician and surgeon. The former is well aware that iodine and mercury could exert no power in producing the absorption of such masses as these; and the surgeon would carefully avoid inserting a seton in a tumour it could not cure, while it would endanger the patient's life by hæmorrhage, owing to the great supply and enlarged condition of the blood-vessels.—*Casper's Wochenschrift.*

THE HYDRO-FERROCYANATE OF POTASH AND UREA.

We extracted some time since, from the pages of *L'Union Médicale*, an account of the supposed antiperiodic powers of this singularly named remedy. Our esteemed contemporary has lately published a letter from a correspondent, M. Rabourdin, of Orleans, who has analysed the salt, and has not been able to detect a particle of urea. This has called up one of the inventors, M. Ossian Henry, who asserts that it is perfectly easy to separate the urea, and gives a process for the purpose. If the salt possesses anything of the extraordinary virtues claimed for it by its discoverer, M. Baud, it would be right to make it well known, that it may be tried by other observers.

M. COSTE, ON GESTATION IN THE HUMAN SUBJECT.

The following are the results obtained by M. Coste, after a long series of researches made on women cut off by violent death :—

In all females who had destroyed themselves while menstruating, M. Coste found the lining membrane of the uterus so thick as to resemble a factitious membrane. In cases of extra-uterine conception, this thickened membrane formed folds like the convolutions of the brain, and was often one-tenth of a millimetre in thickness.

From these facts the author concludes, that whenever an ovum arrives at maturity in the ovary, or is separated from it, the mucous membrane of the uterus undergoes a particular change intended for the reception of the ovum.

The next point ascertained by M. Coste, is, that the Fallopian tubes remain always open, so as to convey the ovum to the uterus at any period after impregnation, and are not closed by a membrana caduca, as has been generally believed.

In females who had committed suicide from the 20th to the 30th day after conception, M. Coste always found the Fallopian tubes open, the uterine mucous membrane still more thickened, and the ovum enveloped in this latter membrane, so that the uterus appeared to be empty. As the ovum is gradually developed it pushes this membrane before it, and thus at last forms the different folds of the *caduca*, which in reality is nothing but the lining membrane of the uterus. M. Coste, therefore, rejects William Hunter's theory.

After delivery the lining membrane is regenerated.—*Bul. de l'Institut, Oct.* 21.

GENERAL CORRESPONDENCE.

EXCISION OF THE HEAD OF THE FEMUR.

[To the Editor of the Medical Times.]

SIR,—The principal object I had in view in bringing before the Medical Society of London my observation on excision of the head of the femur, illustrated by 12 cases,—all that I could collect,—has been already attained. The memoir I read on the evening of the 13th of Dec. was attended with this result: it brought within the Society's hall a large assemblage of my professional brethren, including many surgeons of known experience, and it elicited from them remarks which must be deemed valuable, whether in accordance or adverse to the views I have adopted in respect of an operation which seems more formidable than it really is; for excision of the head of the femur, and of the neck and trochanters of that bone, when affected with caries, is not itself a difficult operation; the difficulty lies in the diagnosis. The caution, amounting almost to timidity, with which many surgeons regard operations on the hip-joint, has no doubt arisen from, or at least been much influenced by, the known fatality of amputations at or near the hip-joint, and by the hopeless character of gun-shot fractures involving the upper third of the femur.

It is to the observations there made on the subject of my memoir, that I mean, with your permission, briefly to reply.

1st. The gentlemen who favoured the Society with their valuable remarks, seem to have lost sight of the fact, that the most obstinate cases of caries in this region, when occurring in the adult, are not unfrequently confined to the upper and outer surface of the trochanter major. I have it on what I may consider the best authority, that such cases, clearly within the reach of the surgeon, and imperatively demanding the aid of surgical means, are mistaken for morbus coxarius, for diseases of the hip-joint, and are treated as such—unavailingly of course—and terminate (unless interfered with) uniformly in death. For we know nothing of the real nature of this kind of caries; it is as yet incurable by any means short of actual cautery or the knife. This class of cases, intractable no doubt, but still remediable by surgery, seems to me to have been altogether lost sight of. The admirable practical observations contained in the lucid speech which I may say terminated the debate, and especially those of the third postulate in that speech, are wholly inapplicable to the description of cases I now speak of.

2nd. If it be true, and it is a point I do not question, that in scrofulous caries of the hip, or of any other joint, occurring as it most frequently does in youth, nature often effects wonderful changes by the removal of diseased structures, and by the restoration of lost parts of a magnitude seemingly incredible; it is also true that such diseased structures may sometimes be more quickly and more advantageously removed by the knife, the aptitude for their restoration being in no way infringed on or diminished by an operation; and this has been proved over and over again in those bold operations on the elbow-joint well known to all surgeons; operations so often repeated, and with such success, as clearly to warrant similar attempts to bring within the domain of legitimate operative surgery the excision of the carious pelvic extremity of the femur.

3rd. It was objected with a great show of truth, by most of the speakers, that the removal of local disease could not cure the constitutional taint in the class of diseases I now advert to. But the same remark applies precisely to operations on the elbow-joint, knee-joint, and all other joints similarly affected; and yet no surgeon hesitates to excise the extremities of the diseased bones of elbow-joints, or to amputate in cases of white swelling, although he be not in the least assured that the constitutional taint has ceased; and I should be glad to be informed of the pathognomonic symptom which is to assure the surgeon on that point. He may, or he may not, remove the whole of the affected structure (I think it very questionable if in any case he does;) at all events, he does not remove the constitutional taint by snipping off the ends of the radius ulna and humerus; this, I hope, will not be maintained, even by the gentleman who made the observation; and yet these cases do admirably,—the wounds made by the surgeon heal, and the extremity may, and often does, become a useful limb; and in amputations life is saved. It would almost seem as if the operation had determined the solution of the constitutional disease, and terminated it. As no surgeon, then, pretends to wait for the cessation of the constitutional taint, before he operates on diseased elbow-joint, neither is he bound to follow such a course in morbus coxarius. Moreover, as I have shown, he can never know when that constitutional taint has ceased.

4th. That operations not strictly warrantable by the existing cir-

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cumstances of the case, as a more advanced knowledge shows, have been performed, I am free to admit. But the history of the introduction of each important operation, is full of such errors. This, however, is not the question, which really is the discovery of the fitting cases for the adoption of the operation; and this is only to be effected by multiplied physiological and pathological observations, and by careful discrimination of symptoms.

To say that we "must not operate whilst active mischief is going on," is an observation that scarcely requires any refutation. The surgeon must operate when the life of the patient is in danger. In white swelling, in diseased elbow-joint, in traumatic mortification, the exhaustion of the frame, so happily alluded to by the last speaker, "as a symptom not merely of the existence of an incurable local malady, but of a constitutional disease," must be met, no doubt, by general treatment. But the surgeon need not, for this reason, neglect the favourable moment for removing a local malady, which, if it do not cause, yet certainly aggravates, the sad condition of the patient. I am, &c.,

Grosvenor-street. HAYNES WALTON.

SELF-SUPPORTING DISPENSARIES.

[To the Editor of the Medical Times.]

SIR,—An invitation was contained in a recent number of your journal for communications from surgeons connected with self-supporting dispensaries. In thus soliciting information, I take for granted that you are desirous of obtaining a knowledge of the truth, and are resolved that your judgment shall not be warped by prejudiced or preconceived notions on such an important subject. Under these impressions, I readily comply with your request.

The Derby Dispensary was established about twenty years ago, on Mr. Smith's plan, under the designation of the "Derby Self-supporting Charitable and Parochial Dispensary." Previous to the Poor-law Union Act, one of the parishes of the town contracted with the Committee of the Dispensary for medical attendance on their paupers, to the great benefit of the paupers and general satisfaction of the parishioners. This arrangement of course ceased when the Poor-law Union Act came into operation. From that time till about six years ago, the Institution consisted of a "charity class" in connexion with a "free class." Although great good was effected by the Dispensary during the fourteen years in which this union existed, yet it was greatly retarded in its operations, and ample proof was afforded that the two principles of self-reliance and reliance on charity are antagonising principles, utterly incompatible with each other, and incapable of harmonising or, indeed, of existing together for a long continuance.

In the year 1844 the discontinuance of the charity class was with much difficulty effected, and the institution became re-modelled exclusively on the principle of self-reliance, under the name of "The Derby Self-Supporting or Provident Dispensary." Since this alteration was made, the Dispensary has become an invaluable institution; it possesses the entire confidence of the public and has gradually and steadily increased in usefulness, popularity, and importance. The number of free "class" members on the books in 1844, the year in which the above alteration was made, was 384. The number of enrolments now is considerably above twelve hundred (1297) and is rapidly increasing. The honorary secretary, with the dispenser, and one of the surgeons in rotation, meet at the Dispensary every Thursday evening, for the purpose of admitting new members and receiving the weekly contributions, when the Dispensary is generally crowded from six till eight o'clock. The receipts average from 4*l.* to 5*l.* Last week they amounted to 7*l.*, and forty enrolments.

There are eight surgeons belonging to the Institution, who are well satisfied with the securities against the admission of persons whose circumstances enable them to pay for medical assistance; and also with the remuneration which the Dispensary affords for medical attendance on persons from whom, for the most part, they usually receive nothing.

The following conclusions may justly be drawn from the twenty years' experience afforded by the Derby Dispensary:—

1. That dispensaries formed on the principle of self-reliance, *when properly conducted*, are admirably adapted to afford medical aid to a very numerous class of persons, who, without such an institution, would be unable to pay for it.

2. That the poor and working classes highly value the mode of relief afforded by the dispensary.

3. That the union of a "charity class" with a "free class" in the formation of such institutions is altogether inexpedient, and ought never to be attempted.

4. That the remuneration afforded to the medical officers, although certainly inadequate as regards the value of their services, yet, as they are willing to co-operate with *honorary* subscribers in effecting a great public benefit, they are satisfied; at the same time, such remuneration, by promoting a spirit of laudable competition amongst the surgeons, becomes an admirable security for proper attention to the sick committed to their charge. Instead of being derogatory to the Profession, it tends to increase its dignity and respectability, and to raise it in public estimation.

5. That, to secure the important advantages intended by these dispensaries, the co-operation of the public as *honorary subscribers* is essential. By the rules of the Dispensary, the surgeons cannot receive more than 3*s.* per annum for each person in health, not sick case, *enrolled* under his name, (at the time of admission each applicant is required to name the surgeon under whom he wishes to be *enrolled*.) If there shall be any surplus, it is to form a reserve fund for any contingencies which might occur.

6. That such institutions are admirably adapted to afford medical relief to paupers; and, if they should be established throughout the country, might become a powerful agent in the hands of Government for superseding the present very objectionable mode of affording medical relief under the new Poor-law Act, which is notoriously unsatisfactory to the Medical Profession, and consequently cannot secure from the union medical officers due attention to their pauper patients.

Derby has a population of about 50,000. The paupers are attended by one union surgeon. There is a General Infirmary, and the Provident or Self-supporting Dispensary. Without the important aid afforded by these institutions in supplying medical assistance to the poor and working classes, it would be utterly impossible for one individual to perform the duties imposed upon the union medical officer. I am, &c., JOHN JONES.

Derby.

KOUSSO AS AN ANTHELMINTIC.

[To the Editor of the Medical Times.]

SIR,—The variety of remedies that have at different times been proposed for the cure of tape-worm, sufficiently attests their invalidity; and, when it is considered to what serious affections the presence of these parasitic animals give rise, it is incumbent, if only on the score of humanity, to investigate every new proposal made for their eradication from the human frame, and to test, in the most unprejudiced manner, the means put forth to effect this desirable purpose.

To Dr. Pereira the merit is due of having, in the *Pharmaceutical Journal* for July, 1850, directed the attention of the Medical Profession to the anthelmintic properties of the brayera anthelmintica, or, as it is more commonly known, the kousso.

In Abyssinia, as in other eastern countries, worms are known to constitute a disease of more frequent occurrence than in Great Britain, and the kousso has there been known as a remedy for upwards of 200 years; yet it has not been, until lately, employed elsewhere; and, from the extravagant price at which alone it can be obtained in France, there would seem to be little chance of our deriving any satisfactory information on the subject. Desirous of testing the value of the kousso as a remedy for tape-worm, and, having just received from my correspondent at Aden an ample supply for this purpose, I beg to state, through the medium of your publication, that I shall be most happy to present the remedy to the physicians of our medical hospitals and charities, that its qualities may be fairly ascertained previous to my obtaining a larger supply. In Paris I find the kousso is still held in estimation, and the first trials of it were made in 1847. Few trials have been made in this country, and these are described in the *Medical Times* and the *Lancet* as having been made by Drs. Todd, Budd, and Gull. It has also been successfully employed by Dr. Inglis, of Halifax.

I am, &c., JOHN SAVORY.

143, New Bond-street.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Dr. J. R. BENNETT, President, in the Chair.

PERFORATION OF THE STOMACH—ULCERATION OF THE GASTRO-EPIPLOIC VEIN.

DEATH BY HÆMORRHAGE.

Dr. Routh exhibited a specimen of a man's stomach perforated in the great curvature. The case was that of a man, aged 60, who had usually enjoyed good health. Some time back, he had consi-

derable pain in the stomach, for which he was salivated to an unusual degree; some sloughing, with considerable œdema of the tonsils and larynx, resulted from this treatment. Dr. Routh did not see him till about ten days after. The symptoms were those of gastrodynia, with considerable weakness. There had been slight hæmoptysis, but, the lungs being sound, the hæmorrhage was attributed to the throat complaint. This on examination was found to be reddened, with some tenderness over the larynx and difficulty of swallowing. The abdomen was soft, with some pain over the stomach. Bowels much constipated. He was ordered a soothing laxative, a draught with prussic acid and gentian, a blister to the stomach, and a gargle. Under this treatment he gradually improved, the gastric pain almost entirely disappearing. The throat symptoms were very much diminished, two leeches having been applied to the laryngeal region, and a blister on the nape of the neck. He continued under treatment for about three weeks, and appeared to be improving, when, on Wednesday last, he was seized with a fit, and died in about twelve hours. Dr. Taylor assisted at the *post-mortem*, 36 hours after death. Lungs healthy; apex of left lung containing a small dark cretaceous plate. Heart small and flabby; one of the tricuspid valves somewhat thickened; the right auricle very much so; the other valves healthy. Liver large, with fatty degeneration. Kidneys with cysts and fatty degeneration. Intestines of rather a dark colour. The stomach was full, and contained about three quarts of blood, partly liquid and partly in clots; about the centre of the greater curvature was a large hole, through which the index finger could be passed downwards into a considerable mass, involving the diseased mesenteric glands and part of the pancreas. There appeared to have been some ulceration or an abscess in this mass, which in bursting into the stomach had involved the gastro-epiploic vein, and thus caused death by hæmorrhage.

EXFOLIATION OF BONE AFTER AMPUTATION.

Mr. Gay exhibited a ring of bone taken from the end of a stump three months after amputation. Mr. Gay had previously taken away a similar ring, consisting of compact texture having the entire sharp edge, which is left after sawing the bone through; and he thought that these exfoliations were more constant than was expected, and that they accounted for the sinuses which sometimes delayed the healing of stumps. Another preparation produced, was that of the end of the femur after amputation had been performed eight days. In this the periosteum had shrunk irregularly from the extreme edge of the bone, leaving from a third in some parts to a line in others exposed and evidently ready to exfoliate. Mr. Gay regarded this as one of the processes by which the ends of the bones are after amputation rounded off, in accordance with nature's general plan, and advises, in order to avoid the tediousness of the process, that the edge of the bone be either sawn, nipped, or filed off at the time of the operation.

CASE OF INTERNAL STRANGULATION.

Mr. Hancock related a case of internal strangulation, which presented the usual symptoms of constipation, vomiting, swelling of the abdomen, &c. He was requested to see the case by Mr. Brown, of Lewisham, who agreed with him as to the propriety of performing an exploring operation for the relief of the internal constriction, whatever that might be. After a careful examination, Mr. Brown directed attention to a spot on the right side, about three inches above Poupart's ligament, which presented an unusual feeling to the touch, and, as no abnormal signs presented elsewhere, it was decided to operate in that situation. Accordingly, Mr. Hancock carried an incision from rather more than an inch above the anterior superior spinous process of the ilium towards the rectus abdominis muscle, ending above the external abdominal ring. After dividing the layer of muscles and fascia transversalis, the peritoneum was found to bulge. This was laid open, exposing a knuckle of congested and constricted intestine, but the constriction could not be detected, until the gut had been drawn down for about two inches, when the band, which was exceedingly tough, was divided. The patient, however, only survived the operation a short time. No other band or adhesion was found after death. In another case to which Mr. Hancock had been called, but in which the patient refused to submit to an operation, the cause of constriction was found to exist in the appendix vermiformis adhering by its apex to the cœcum, and a portion of the ileum protruding through the ring thus formed. Although these cases terminated fatally, Mr. Hancock submitted them to the Society, as he was in hopes, that if the several cases of internal strangulation occurring in the practice of individuals were recorded, the attention of the Profession would be directed to the propriety of more early surgical interference than usually obtains, and patients be thus afforded a better chance of recovery. At the same time he acknowledged that the diagnosis in these cases was frequently very obscure, the symptoms being for the most part of an unsatisfactory and negative character.

METROPOLITAN SANITARY ASSOCIATION.

On Thursday, a Deputation from the Metropolitan Sanitary Association waited upon Sir Charles Wood, Chancellor of the Exchequer, at his official residence in Downing-street, for the purpose of presenting a Memorial urging him to make such arrangements as would insure the total abolition of the Tax on Windows. The Deputation consisted of

Rev. Charles Hume, Rector of St. Michael's, Wood-street; Dr. Bushnan; W. Rogers, Esq., (Barrister-at-Law;) C. F. J. Lord, Esq.; C. R. Walshe, Esq.; W. D. Bruce, Esq., F.S.A.; T. Abrahams, Esq.; and Dr. Barnett, the Honorary Secretary.

Dr. Barnett introduced the Deputation to the Chancellor, who received them with the utmost courtesy and politeness.

Mr. Rogers, of the Chancery bar, then stated, that the Association, having at its head the Lord Bishop of London, and among its members some of the highest noblemen of the land, a large number of the clergy, and of the legal and medical Professions, was instituted to carry out, by Legislative aid, a great object of moral and social improvement among the poorer classes, by improving their dwellings; and among other appliances, by the introduction of ventilation and light. He urged the Chancellor of the Exchequer and the Government to take the broad basis of justice and humanity, and a consideration for the well-being of the poor and middle-classes upon which to act, and not to hesitate upon mere fiscal grounds; and called attention to the circumstance, that the tax was injurious in the greatest degree to health; and that it was a mere war tax, and introduced as a *temporary measure*, and ought, in good faith, now to be abolished.

Dr. Barnett then presented the Memorial to the Chancellor, which stated:—

"Strong evidence has been adduced, proving that the health of the people is greatly dependent on the ample supply of air and light, and that much waste of health and strength, and even of life itself, is caused by a deficiency of elements so essential to healthy human organisation.

"By official returns it appears, that 19,000 persons die annually in London from tubercular and zymotic diseases, yet the testimony of physicians and surgeons of experience shows, that in the present state of knowledge, the principal diminution of mortality to be hoped for is in these classes of diseases—diseases which are so little susceptible of cure, but very amenable to means of prevention.

"Evidence may be found in the Report of the Health of Towns Association, and that of the Health of London Association, and especially in the valuable Reports of the Health of Towns Commissioners, at p. 41, Vol. I., and at p. 119—123, Vol. II., from which it appears, that the tax on windows encourages the construction of houses highly unfitted to securing the necessary supply of air and light, and that it impedes the construction of dwellings more adapted to healthy existence. . . . .

"It is scarcely necessary to point out the intimate relation between an impure atmosphere and a tax which operates as a premium to shut up every window which can possibly be spared, and prevents the opening of any aperture under a penalty.

"In proportion as the Window Duties exclude light from human dwellings, they tend to deteriorate the population; they interpose a positive and definite obstacle to the full development of the physical constitution, and consequently to the physical strength and vigour of the people.

"The Association trust, therefore, that you, Sir, will, with a just and humane consideration for the health of the people, cause such arrangements to be made, as will insure the total abolition of the Tax on Windows.

"Adolphus Barnett, Hon. Sec.,
"Jan. 16." Metropolitan Sanitary Association.

Mr. Nicholay advocated the repeal of the Window-tax entirely on sanitary grounds, and called particular attention to the measure introduced by Lord Althorp, permitting all classes to open additional windows free of duty, and which measure he believed the promoters at the time really, honestly, and truly intended for the benefit of the people generally, but, by an interpretation given to the Act of Parliament which was never contemplated, such boon was entirely lost, and those who opened windows under the faith of that Act had subsequently to pay for them. He trusted the time was now come when the country would be relieved of this injurious impost,—an impost that was never intended to be a permanent one,

and nothing but a total and unconditional repeal would satisfy the country.

Dr. Bushnan desired to call the attention of Sir Charles Wood to the fact, that certain diseases had been proved to be caused by defective light and ventilation; and that the progress of all was very materially affected by the same causes. He would not at that time detain Sir Charles Wood by any facts in proof of his assertion; but he was ready to lay such a case before the Government as, he thought, would induce them to pause before they perpetuated so gross a wrong on those who could not assist themselves, and whom it was the duty of a paternal government to assist.

Sir Charles Wood could not enter upon any medical consideration, or doctrines involving opinions.

Mr. Lord remarked, that though the Chancellor of the Exchequer could not entertain or understand the bearings of such points, it was the especial object of this Deputation, solicitous for real sanitary reform, to urge the abolition of the Window-tax, because health, happiness, and life were all curtailed through its injurious operation. It was a principle in physiology, that light and air were indispensable to the full development and healthy growth of animal as well as of vegetable life. It was painful to the feelings of all, that such slow, sapping maladies, which Dr. Bushnan had characterised as blood diseases, should be assisted in preying on the vitals of the population through any regulation for fiscal purposes. It could not be too generally known, that the microscopic experiments of the learned Professor Owen gave additional proof, that light and ventilation were as specially required to prevent many diseases as to aid in restoring health.

Sir Charles Wood briefly replied by stating, that the Deputation were aware that it was his duty to listen to the statements made to him, not to give any opinion. At the same time, he assured the Deputation that the Memorial presented to him should receive due consideration.

The Deputation then withdrew.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 10th inst.:—

Bain, James, E.I.C.S., Bombay.
Bull, George Rhind, Birmingham.
Bunney, John, Coventry.
Grahame, William Dixon, London.
Griffith, Gideon James William, Mountpleasant-square, Dublin.
Hillcoat, Henry Brougham, Brussels.
Kelly, Patrick Dillon, Mullingar, county of Westmeath, Ireland.
Paine, William Henry, Stroud, Gloucestershire.
Puddicombe, Alfred, Moretonhampstead, Devon.
Steele, William Palmer, Abergavenny, Monmouthshire.
Thompson, Henry, Belfast.
Webb, Harry Speakman, Oxford.

At the same meeting of the Court, Mr. Carles Bedingfield Wood, and Mr. Edward William Pritchard, passed their examinations for naval surgeons; these gentlemen had previously been admitted members of the College, their diplomas bearing date respectively July 11, 1845, and May 29, 1846.

Dr. Paris, the distinguished President of the Royal College of Physicians, is rapidly recovering from severe illness.

Dr. Babington has been requested by Lord Palmerston to attend, on behalf of the British Government, the meeting of medical men convened at Leghorn by the Austrian and Italian States to consider the subject of quarantine.

Dr. Monro, having recovered from his severe indisposition, his agreeable professional *réunions* will shortly be recommenced.

The Soirees of the President of the Royal Society will be resumed immediately after Easter, when His Lordship comes to town for the season.

Cambridge.—Dr. Haviland, who has held the Regius Professorship of Medicine at this University since 1817, expired Jan. 8, at his residence in Trumpington-street. He graduated as twelfth wrangler, and a member of St. John's College, in 1807. In 1814 he was elected Professor of Anatomy, which appointment he resigned when he became Regius Professor of Medicine. He practised as a physician in Cambridge for many years; for a long time he was Consulting Physician to Addenbrooke's Hospital. Dr. Haviland, who was in his 66th year, had long been suffering from constitutional disease.

Military Appointments.—41st Foot: Assistant-Surgeon W. Kilner Swettenham, M.D., from the staff, to be assistant-surgeon. 47th Foot: Assistant-Surgeon Edmonds Robert Richardson, from the staff, to be assistant-surgeon. 49th Foot: Assistant-Surgeon W. Walter Weld, from the staff, to be assistant-surgeon. 61st Foot: Assistant-Surgeon W. Briscoe, M.D., from the staff, to be assistant-surgeon, vice Lucas, deceased. 1st West India Regiment: George Peacocke, M.D., to be assistant-surgeon, vice Wall, appointed to the staff. Hospital Staff.—Richard E. Fitzgibbon, gent., to be assistant-surgeon to the forces; Dudley Clifton Wodsworth, gent., to be assistant-surgeon to the forces, vice Briscoe, appointed to the 61st Foot; W. Sim Murray, M.D., to be assistant-surgeon, vice Richardson, appointed to the 47th Foot: William Armstrong, gent., to be assistant-surgeon to the forces, vice Swettenham, appointed to the 41st Foot; Assistant-Surgeon Thomas Frederick Wall, from the 1st West India Regiment, to be assistant-surgeon to the forces, vice Weld, appointed to the 49th Foot.

Naval Appointments.—Surgeons Thomas Frazer, M.D. (1838), at present serving in the Wellesley, 72, flag-ship, on the West Indies station, to the Cumberland, 70, at Chatham, the flag-ship of Vice-Admiral Sir G. F. Seymour, G.C.H., to relieve the Wellesley; James J. Paul, M.D. (1845), to the Wellesley. Assistant-Surgeons Marmaduke P. S. Ward (1848) to the Spy, 3, brigantine, at Chatham; John Watt Reid (1845), from a naval hospital, and James S. Ayrest (1847), from the Hogue steam guard-ship at Cork, to the Cumberland; Henry M. Speer (1845), from a naval hospital, to the Hogue, at Cork; Acting Assistant-Surgeon Frederick Le Keux to the Impregnable flag-ship, at Devonport.

Melancholy Suicide at Boston.—On Thursday last, John Brown, Esq., M.D., aged 51 years, terminated his existence by taking prussic acid. The body was found in the hot-house, and was in a sitting posture, with one arm resting upon a flower-pot. A short time ago, the deceased held the office of Mayor, and was a magistrate for the borough. An inquest was held on the body, and the jury returned a verdict of "temporary insanity." About fifteen years ago, an eminent surgeon who had filled the office of Mayor took prussic acid, and died in the same way.

Death of M. Link.—We regret to announce the decease of M. Link, the Senior Professor of the University of Berlin, celebrated as a botanist and a writer on natural philosophy and science. A singular *contretemps* occurred at the funeral. The clergyman who pronounced the *post-mortuary* oration, being what is termed orthodox, could not approve the spirit of some of M. Link's writings, and censured them accordingly—it is said, even in most unbecoming language, thus giving great offence to the friends of the deceased.

The following medical celebrities died in France in 1850:—Capuron, Prus, Tanchou, and H. Royer-Collard.

Guy's Physical Society.—A very interesting paper was read at the meeting of this Society on Saturday evening, Jan. 11, by Mr. Robinson, "On Obstructions of the Intestinal Canal," before a very good attendance,—Bransby B. Cooper, Esq., in the chair. The author of the paper considered his subjects under the following heads:—The *post-mortem* appearances—symptoms during life—diagnosis—cause of death—and treatment, in which he strongly recommended the internal employment of metallic mercury to overcome the obstruction. Dr. Lloyd made some remarks on the appearances seen on dissection, and mentioned cases where large quantities of mercury had been given, and had remained in one of the coils of the small intestine, and had never reached the constricted part. Mr. Hilton spoke somewhat at length and to the purpose. He referred the congested condition of the gut observed above the stricture to a slow inflammatory action; and said that he agreed with Dr. Lloyd with regard to the exhibition of mercury, and that he had not seen advantage accrue from its administration. He concurred with Mr. Robinson, in regarding those cases, where the symptoms of obstruction, after existing for some time, are suddenly relieved, as cases resulting from a false band of adhesion, which suddenly giving way, no longer produced obstruction; he was borne out in this view by the dissection of two cases, where the bands seemed in a state of ulceration or disintegration; and thinks that if these patients had lived a few hours longer, they would have given way, and produced a spontaneous cure. He observed, that in intro-susception, there was always, in addition to the constipation and other usual symptoms, hæmorrhage from the bowels, which he regarded as perfectly pathognomonic of the morbid condition in question. In the treatment, if purgatives be unavailable, he recommended reliance to be placed

on opium, with the employment of large injections of fluid per rectum. After some useful and practical observations from Dr. Barlow, on the variety and seat of obstruction, with a few remarks from other gentlemen, the meeting adjourned, with a vote, which was carried unanimously, that the discussion be resumed on Saturday evening, Jan. 25th, the next meeting of the Society.

SMITHFIELD is to be abandoned. (?) This paradise of enthusiastic common-councilmen is to be converted into a site for a fountain, model lodging-houses, and public baths. Old Smithfield has fought a good battle, but, though defeated, even yet contemplates to rear its head in defiance of Mr. Simon and other sanitary reformers. The Bill proposed by the Corporation will have the effect of enlarging the nuisance instead of abolishing it *in toto*. The City actually propose to increase the evil in a tenfold degree. While houses are to be pulled down between Smithfield and Victoria-street, a new and much enlarged central market is to be constructed, abattoirs built, and sewers formed to convey the drainage to the Thames, or by a deeper drainage to a still lower outlet (where, deponents say not)! The proposed improvements aggravate the nuisance, and are totally at variance with the opinion of Mr. Simon, the health officer of the corporation, and in direct opposition to the startling yet truthful evidence of Professor Owen, as to the quality of the food when deteriorated by driving the cattle to and from the market. We sincerely trust this abominable Bill will not pass the House. It would seriously militate against the health and comfort of our fellow-citizens, and form an insuperable obstacle to the improvement of the district. It is right that the public should be aware who the individuals are that thus seek to perpetuate a growing nuisance and a deep disgrace to the metropolis of the world. The "City of London Central Markets Association" rejoices in the presidency of a draper "over and against" St. Bartholomew's Hospital, in Smithfield; its treasurer, we believe, is a skin-dealer and banker to the graziers, whose banking-house is in Smithfield; and its list of contributors is swelled by the names of most of the influential *butchers* of London, and very few else; and by these and such as these our National Council is to be swayed in dealing with that foul blot—Smithfield Cattle Market. But after all, we suppose that they who pull the strings are the authorities of the City, who enrich themselves by the nuisance, who make money-getting the test of all morality and decency, and whose offspring thrive on putridity and rottenness—a new and curious species, inviting the further study of the naturalist.

THE LONDON GRAVE-DIGGERS are in full activity—the Board of Health as supine. Nothing has been done that the public wot of, by that body, to carry into effect a system of extra-mural interment. St. Pancras churchyard still receives new inmates, to eliminate disease and death to the miserable parishioners. St. Andrew's Holborn (one of the worst reported) and St. Paul's, Covent Garden, yet open their receptacles of rottenness and corruption to spread misery abroad, and that without remonstrance or reproof. What with the largely increased population soon to fill our streets, and these open and still opening sepulchres, well may the stoutest heart regard with fear and trembling the marvellous year of 1851, already ushered in with an increased mortality, and with a condition of meteorology threatening still more fearful results.

HEALTH OF BELGIUM.—The close of the year has been fatal to children. For the last three months the mortality has been out of all proportion as regards the majority of the localities in the province of Brabant. At Brussels, during the month of December, upwards of 300 children, under 8 years of age, died. The damp and unhealthy weather has given rise to numerous cases of malignant fever. Among children, cases of measles, scarlet fever, and other maladies of that nature, have been very prevalent. Typhus fever has been very fatal during the past year.—*Brussels Herald.*

THE SANITARY STATE OF BERLIN is reported to be very unsatisfactory. The population is 400,000, and of which 60,000 are said to be laid up with influenza.

THE CHOLERA is reported to have entirely subsided in Cephalonia.

TREATMENT OF INTERMITTENTS.—Mons. Chevreuse recommends the juice or extract of the plantain (*plantago major*). He gives the details of five cases cured by this remedy, which had resisted quinine, arsenic, &c.

BRANDING WITH CAUSTIC.—Mr. Rogerson, a surgeon at Blackburn, has been required to enter into recognizances to appear at the next Lancaster Assizes for marking a B with caustic on a boy's forehead, whom he caught ringing his bell, with the intention to run away. The punishment provided in such cases is transportation for life, or for not less than fifteen years, or imprisonment, with or without hard labour, for not more than three years. Two surgeons stated the mark was indelible. Without defending the rash act of the angry surgeon, we may state, that if lunar caustic were, as is most probable, the drug used, the mark will be effaced before the trial can take place, unless it were more freely applied than is probable. Mr. Rogerson was wrong, but the annoyance sustained by medical men by young scamps in ringing their bells, without cause, is most intolerable.

THE late Mr. Bethune Morrison, of Naughton, Scotland, has left 500*l.* to the Dundee Royal Infirmary, and 200*l.* to the Dundee Lunatic Asylum.

BLOOMSBURY DISPENSARY.—Dr. Pidduck, of Montague-street, Russell-square, has been elected Physician to this Institution. The appointment, we are informed, is worth 100*l.* a year. This dispensary is one of the very few charities in London where the medical officers receive remuneration for their services. The exception should be the rule.

CREWKERNE AND YEOVIL MEDICAL ASSOCIATION.—The following are the laws of this Society, which come into operation on the 1st of the year:—

1. This Association shall consist of honorary and ordinary members, who shall elect annually a president and a honorary secretary.

2. Every member must possess a qualification from a Royal College, or from the Apothecaries' Society.

3. Honorary members must be recommended by at least three ordinary members at a general meeting, and must obtain three-fourths of the votes (by ballot) of the members present. They may attend the meetings, but have no vote.

4. Any gentleman wishing to become a member after the general meeting in April, 1851, must be proposed and seconded by a member, and obtain the votes of three-fourths of the members present.

5. All members shall conduct themselves in their profession as gentlemen, and as professional etiquette requires.

6. An annual subscription of 10s. shall be paid by each member in advance.

7. If any member violate the rules of the Association, the Committee shall be empowered to require a personal or written explanation. If this be refused, or not prove satisfactory to them, the consideration of his expulsion shall be referred to the next general meeting, and if thought proper, the decision of the "Manchester Medico-Ethical Society" shall determine whether or not he shall be expelled.

8. The president shall act as treasurer, and pay all accounts which may be approved by the Committee.

9. The honorary secretary shall keep an account of the proceedings of the Society, and may appoint any member to act for him *pro tem.*

10. The Committee shall consist of any number of members (not being less than three,) and shall be empowered to enact bye-laws for the better regulation of the Society, which must be approved by a majority of the members present at the next general meeting. All meetings of the Committee must be called by the honorary secretary.

11. That important and permanent advantage may be derived from this Association, members will be requested to present cases and communications in writing, which must be sent to the honorary secretary at least a fortnight before they may be read, and the secretary may, by permission of the Committee, refuse to sanction any part of such communication being read, should it be considered personally or otherwise objectionable. The honorary secretary will inform the members, at as early a day as possible before each meeting, of the business to be transacted and of the communication to be read.

12. At the written request of three members, the honorary secretary shall be empowered to call a meeting, the time and place being specified in the notice. Visiters may, by permission, be present, and will be invited to take part in any discussion.

13. The majority of members may determine on any course to be pursued in the way of petitions to the Throne or Parliament, or to endeavour to secure the public against empirical or illegal practice; and this Association is established to advance the interests of the Medical Profession and the welfare of the public.

14. Two general meetings (at the least) will be held in each year, on the second Thursday in April, and the second Thursday in September, alternately at Crewkerne and Yeovil, or at any other place which may be decided on by the Committee.

15. The *Lancet*, *Medical Gazette*, and *Medical Times* will be circulated in rotation among the ordinary members, after the 1st of January, 1851, at which time the Society will commence its operations.

The President is Dr. Tomkins, of Yeovil; and the Secretary, Mr. Wills, of Crewkerne.

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ABUSES IN PRIVATE ASYLUMS.—Mr. Purnell, Chairman of the Gloucester Quarter Sessions, has been presented with a magnificent testimonial, consisting of a drawing table, surmounted by a silver vase, "in admiration of his exertions in detecting certain abuses in private lunatic asylums."

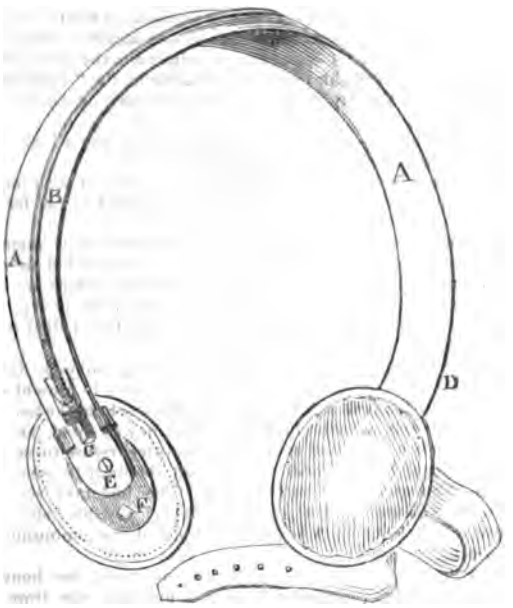
IRELAND.—

"Luckless is he whom hard fate urges on
To practice as a country surgeon"—

especially, it seems, in Ireland. Dr Henry, of Castledawson, proceeding on horseback to visit a patient, was fired at near Moneyglass. The ball passed through the back of the Doctor's neck, but happily without serious injury.

IRISH MEDICAL CHARITIES.—A very influential meeting of Irish medical men has been held in Dublin, to urge the necessity of immediate legislation on this important subject, and to express approval of the Bill brought into Parliament last session by Sir William Somerville.

DR. ARNOTT'S TRUSS.—It is perhaps a matter of surprise how few surgeons direct their attention to the examination of the commonest instruments and apparatus which, though of essential importance to the comfort of a patient, retain, in many instances, a simplicity of construction hardly consistent with the improvements in other departments of the healing art. This remark is applicable to trusses. The evils attending a badly-fitting truss are proverbial; and it is often long before one can be so made that it completely answers the end in view. Either it presses so much that the skin becomes excoriated and inflamed, or so little that the protrusion, in part, descends. The pad has not just that direction which corresponds with the feelings of the patient, and he is constantly trying to give it some twist or inclination which, though slight, would make all the difference between comfort and discomfort. We are indebted to the accomplished author of the "Elements of Physics" for a truss which experience has now shown supplies these deficiencies; with his usual liberality, Dr. Arnott has presented his discovery to the Profession.



1. Along the convexity of the spring of the truss A is fixed a steel wire or rod B having at the end C a screw, with a nut, which may be moved with a key about an inch along the wire, carrying with it the extremity of the truss, and consequently separating the two pads with each upward turn. The end D is of course fixed to the opposite extremity of the truss. The advantage gained by this mechanism is as follows:—The patient can himself accurately adjust the curve of the truss to his own wants; and yet any protrusion pressing against the pad meets the whole force of the spring, as if the external wire were not there. If the skin, upon the first application of the truss becomes fretted, one or two turns of the screw affords immediate relief. If additional pressure is required, it is effected by the opposite movement.

2. The pad, which presses against the ring, has a ball and socket-joint, E, with a screw, F, moved by a key, which can fix it in any inclination which the patient may choose. It is hardly possible for an instrument-maker, however skilful, to fit a pad so as to please a patient, until after several trials; here the truss once made can be regulated by the patient himself, and altered as his feelings suggest, by the simple movement of a screw.

There are some minor points in the working of the truss, which a few minutes' manual examination will show better than a written description. It is manufactured by Mr. Fergusson, the surgical instrument-maker to St. Bartholomew's Hospital, of Giltspur-street, by whom it will be readily shown to any one desirous of inspecting it. It has now been tried in several cases, where a common truss could not be borne, and with complete success. We recommend the "Arnott truss" to the examination of our readers.

GUY'S HOSPITAL.—Arrangements have been effected by which new wards, containing 200 additional beds, will be in the course of this summer added to this Institution.

LIVERPOOL DISPENSARY.—The Physician elected to this Institution is Dr. Sandie, and not Dr. Tandy, as stated in our last.

SELF-SUPPORTING DISPENSARIES.—A meeting to consider this question is to take place next month at Liverpool.

LONDON MEDICAL CHARITIES.—Among the 491 Charitable Institutions of London, which disburse annually the enormous sum of 1,764,736*l.*, 97 are medical, thus:—12 general hospitals, 50 medical charities for special purposes, and 35 dispensaries.

BRISTOL LUNATIC ASYLUM.—It is stated that an order has been sent to the Bristol parochial authorities from the Secretary of State, for the erection of a lunatic asylum, the estimated cost of which is 50,000*l.*

FEE BILL OF THE SAN FRANCISCO MEDICAL SOCIETY.—For a single visit or advice, in a case in which no further visits are required, 32 dols.; for each visit in a case at which the physician is in regular attendance, or for advice at his office, 16 dols.; every necessary visit on the same day to be charged, whatever their number, at the same rate; when detained, for each hour 32 dols.; for a visit as consulting physician during the night, 100 dols.; for visiting distant patients, 10 dollars to be charged for every mile from the city; for an opinion involving a question of law, 150 dols.; for a *post-mortem* examination in case of legal investigation, 200 dols.; for a *post-mortem* examination made at the request of the family or relatives of the deceased person, 100 dols.; for the application of the forceps, 3000 dols.; for reducing recent luxations, 32 to 100 dols.; for removing of stone from the bladder, 500 to 1000 dols.; for the introduction of the catheter in ordinary cases, 16 to 32 dols.; for division of stricture of the urethra, 300 dols.; for examination per anum or vaginam, 50 to 100 dols.; for amputation of a finger or toe, 100 dols.; for trephining, 1000 dols.; for the operation for cataract, 1000 dols.; in all surgical operations not included in the fee bill, the charge to be discretionary with the surgeon.

DEATHS *in the Metropolis for the week ending Saturday, Jan.* 11, 1851.

CAUSES OF DEATH.	Jan. 11. 0	15	60	All Ages.	Sum of Ten Weeks.
ALL CAUSES	451	336	235	1023	11621
SPECIFIED CAUSES	450	325	235	1021	11561
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	130	30	13	178	2275
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	4	19	18	41	570
3. Tubercular Diseases.	55	109	5	169	1850
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	59	35	25	119	1309
5. Diseases of the Heart and Blood-vessels	4	22	18	44	393
6. Diseases of the Lungs, and of the other Organs of Respiration ...	117	68	90	275	2722
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	21	25	9	55	610
8. Diseases of the Kidneys, &c. ...	...	7	5	12	106
9. Childbirth, Diseases of the Uterus	...	7	...	7	104
10. Rheumatism, Diseases of the Bones, Joints, &c.	2	6	1	9	81
11. Diseases of the Skin, Cellular Tissue, &c.	1	...	...	1	14
12. Malformations	4	...	...	4	29
13. Premature Birth and Debility ...	29	1	...	30	220
14. Atrophy	11	1	1	13	145
15. Age	...	...	43	43	782
16. Sudden	5	2	1	9	116
17. Violence, Privation, Cold, and Intemperance	8	3	6	17	230
Causes not Specified	1	1	...	2	60

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1.	Small-pox ...	16		Paralysis	17		Disease of Spleen ....
	Measles	21		Delirium Tremens	2	8.	Nephritis..... ...
	Scarlatina ...	16		Chorea	...		Nephria or Bright's Disease ... 4
	Hooping Cough	43		Epilepsy	6		Ischuria ....
	Croup	1		Tetanus	...		Diabetes 1
	Thrush.....	3		Insanity	5		Stone ....
	Diarrhœa ...	15		Convulsions	47		Cystitis ....
	Dysentery ...	1		Disease of Brain, &c.	12		Stricture of Urethra ... 2
	Cholera	...	5.	Pericarditis...	3		Disease of Kidneys, &c. 5
	Influenza ...	9		Aneurism ...	...	9.	Paramenia ... ...
	Purpura and Scurvy.....	1		Disease of Heart	41		Ovarian Dropsy..... ...
	Ague	1	6.	Laryngitis ...	4		Childbirth (see Metria) 5
	Remittent Fever	2		Bronchitis ...	136		Disease of Uterus, &c. 2
	Infantile Fever	2		Pleurisy	5	10.	Arthritis ....
	Typhus	35		Pneumonia...	96		Rheumatism 5
	Metria or Puerperal Fever	2		Asthma	27		Disease of Joints, &c. 4
	Rheumatic Fever	3		Disease of Lungs, &c.	7	11.	Carbuncle ... ...
	Erysipelas ...	2	7.	Teething	14		Phlegmon ... ...
	Syphilis	...		Quinsey	1		Disease of Skin, &c.... 1
	Mema or Canker.....	...		Gastritis	...	17.	Intemperance ...
	Hydrophobia	...		Enteritis.....	7		Privation of Food..... ...
2.	Hæmorrhage	5		Peritonitis ...	6		Want of Breast-milk 3
	Dropsy.....	15		Ascites.....	3		Neglect ....
	Abscess	2		Ulceration (of Intestines, &c.)	2		Cold ....
	Ulcer	2		Hernia.....	2		Poison 3
	Fistula.....	1		Ileus.....	1		Burns and Scalds 4
	Mortification	1		Intussusception	...		Hanging, &c. 1
	Cancer	15		Stricture of Intestinal Canal	1		Drowning ... 1
	Gout.....	...		Disease of Stomach, &c.	5		Fractures ... 3
3.	Scrofula	7		Disease of Pancreas ...	...		Wounds 2
	Tabes Mesenterica	18		Hepatitis.....	2		Other Violence..... ...
	Phthisis (or Consumption).....	123		Jaundice	1		All Violence 14
	Hydrocephalus.....	21		Disease of Liver	10		
4.	Cephalitis ...	16					
	Apoplexy.....	14					

BIRTHS AND DEATHS.

	Births.		Deaths.		Births over Deaths.	
Males	792	1580	492	1023	300	557
Females	788		531		257	

The Deaths in the several Districts are as follow :—

Districts.	Population in 1841.	Jan. 11, 1851.	Sum of Ten Weeks.
London...	1948369	1023	11631
West	301189	166	1731
North	376388	195	2704
Central...	274199	170	2166
East	393067	229	2516
South	503346	269	3134

Norwich Lunatic Asylum.—The Report just presented, states that there were 252 patients in the house, 116 males, and 136 females. The expenses for the quarter had been 1,023*l.* 2s. 7d. The Report of the Commissioners of Lunacy was said to be very satisfactory to the visiting justices.

Births and Deaths at Antwerp in 1850.—The Register-office returns for 1850 at Antwerp furnish the following items :—Births 3105, being 157 more than in 1849 : deaths 2037, being less than in the previous year. The number of marriages amounted to 902, 120 more than in 1849.

TO CORRESPONDENTS.

No notice will be taken of communications otherwise addressed than to the Editor, and at the Office in Princes-street.

The Exhibition of 1851.

[To the Editor of the Medical Times.]

Sir,—An idea came in my mind lately, after engaging in conversation with some parties on that noble conception of our illustrious Queen's consort, the Exhibition of 1851, whether it were practicable for the medical practitioners throughout the United Kingdom who are strangers or foreigners in London, if desirous of visiting such a "centre of attraction," to get arrangements made by your valuable help, drawing the attention of metropolitan medical men to take into consideration how they may confer a great boon to their provincial brethren, and open up a way for more cordial co-operation among them.

I propose that you request a meeting of those favourable to taking steps, as will enable us, who are as strangers in a foreign land, in London, to "respectable accommodation," for payment as reasonable as possible. To carry out this step will require little sacrifice. Were they even to provide a home, especially what will most be valued, a bed, for their brethren, upon certain conditions, I do not think it would be beyond the pale of their benevolence and hospitality. These hints I fondly hope will meet the views of some one that can see the germs of a good harvest that may spring up from such a move. Should you consider this subject anyways feasible, by giving this notice in your "Times," you will oblige a subscriber and

L. R. C. S., Edinburgh.

Advertising Medical Men.

[To the Editor of the Medical Times.]

Sir,—Is it true that Sir Alexander Morrison has turned publisher, and with Dr. Culverwell, advertises his books "to be had at his own house"?

I am, &c., Querero.

[We regret to find that this is true; and are much surprised that a man in the position of Sir Alexander Morrison should condescend to adopt a course so exceedingly unprofessional. It is the duty of every medical man who wishes to be respected in his profession, to avoid every appearance of quackery; and we know nothing that savours more of this delinquency than that of illegitimate self-advertisement. We strongly recommend Sir Alex. Morrison to abandon the trade he seems to have commenced: upon inquiry at the Row, he will find it anything but a profitable one. Time was when Cavendish-square was an aristocratic locality. Much as it has fallen from its high estate, Sir A. Morrison is the first bookseller who has been there located.]

The Medical Directory for 1851.

[To the Editor of the Medical Times.]

Sir,—Will you allow me to call your attention to an act of injustice inflicted upon me by the Editor of the "Medical Directory." He has omitted all notice of my work on Excision of the Tonsil, and its Consequences in Cases of Deafness, and of papers I published in the "Provincial Journal," on Rheumatic Inflammation of the Ear. The statement respecting this was forwarded to the Office of the "Medical Directory" immediately after the first circular. I cannot help thinking the omission involves something more than a mistake.

I am, &c.,

Wm. Harvey, Fellow of the Royal Medico-Chirurgical Society, and Medical Society of London.

2, Soho-square, January 16, 1851.

[This is not the only complaint, even at this early period, that has reached us, of the names and qualifications of gentlemen not being inserted in the "Directory" in the terms in which they were sent to the Editor. We shall be glad to receive the statements of gentlemen so aggrieved. In a work of this kind the greatest impartiality is necessary, or its value will be altogether nullified; and, *under the circumstances*, in Mr. Harvey's case the fault is almost unpardonable.]

Juvenis.—Our Correspondent must not be deceived by the glitter of Oken in his Physio-Philosophy. It is a work of undoubted talent, but so wrapt up in a mantle of mysticism—so strapped and corded with dogmas, many of which are utterly false,—that we defy any one—not excepting Madlle. Julie, the all-knowing,—to understand it. Of his geology, Professor Sedgwick says, "All his pages on the structure of the earth give us little more than a compound mass of error, involved in a succession of assertions, poured out with the utmost dogmatism and without one syllable of reserve. Almost everything that he tells us of Geology, and much that he tells us of mineralogy, must come under this unmitigated censure. His geology is false to nature in its beginning, and its middle, and its end." *Juvenis* had better study Professor Anstead's or Sir C. Lyall's works, and there is a very useful little manual by Lieut.-Col. Portlock called "Rudimentary Geology," which might be advantageously consulted.

Clericus.—You run a great risk in treating the cases you describe. The responsibility of non-professional persons treating others on homœopathic or even allopathic principles is great. We know an instance where a clergyman bleeding a poor parishioner, wounded the brachial artery; a diffused aneurism and mortification came on, and the man died!—a bitter lesson, which others may perhaps learn who step out of their own sphere to intrude on that of the hard-worked and ill-paid country surgeon.

T. S.—We only hope that the fellow who wrote the disgusting letter in the "Times," to which our Correspondent alludes, may, in his extremity, feel the want of a doctor. Ingratitude and insult are too often the rewards paid for attention, kindness, and important professional services; but we *give* so much, that such low-minded men would fain *take all*.

A Constant Subscriber, Ludlow.—The work of Dr. Henry Monro.

Ptosis.—The first page of a paper on Ptosis has unfortunately been mislaid. Will the Author kindly send us another copy?

M.D., Torquay, will do well to procure "Microscopical Researches into the Accordance in the Structure and Growth of Animals and Plants," translated from the German of Dr. Th. Schwann and Dr. Schleiden, by Mr. Henry Smith, and forming one of the Volumes of the Sydenham Society. The work we lately reviewed, "Schleiden's Botany, by Dr. Lankester," also contains much valuable information.

Communications are acknowledged from Mr. Chaldecott, of St. Thomas' Hospital; A Subscriber; L. R. C. S. Edin.; Dr. Budd, of King's College; Fidelis; Mr. Lloyd, of St. Bartholomew's Hospital; Dr. Daniell, of Grosvenor-street; Mr. Annan, of Kinross; Mr. Savory, of Bond-street; M. D.; Juvenis; Clericus; A Subscriber, Ludlow; T. S.; Dr. Wilks, of Peckham; Querero; and Mr. Wm. Harvey.

ORIGINAL LECTURES.

CLINICAL LECTURE ON MEDICINE,

AT

KING'S COLLEGE HOSPITAL.

By GEORGE BUDD, M.D., F.R.S.,

Fellow of the College of Physicians, and Professor of Medicine in King's College.

I wish to call your attention to-day to the case of Mary Cox, the woman who has been the subject of so many operations for the extraction of needles and pins from the parietes of the belly. The case is one of the curiosities of medical experience; but, strange as it may seem to you, it is by no means the first case of the kind.

Hysterical women sometimes do extraordinary things. Two or three years ago, there was one in the hospital, under my care, who for a long time had made herself an object of compassion, and distressed her family, and deceived very shrewd and experienced physicians, by feigning various ailments, the reality of which seemed to be attested by broad red spots, which appeared in succession on various parts of her body; and which, as it afterwards turned out, she had herself produced by irritating the skin with ginger. She had learned these fictitious ailments from a young woman with whom she was intimate, who had for a long time practised the same deceit. I have met with more than one instance in which a woman in this state of mind has been in the habit, for years together, of eating her hair—a propensity which, like other strange manifestations of the hysterical temperament, is also sometimes found to be catching. Instances now and then occur of a woman running needles into various parts of her body, and thus exciting, and keeping up for a long time, the interest and compassion of her neighbours and friends, who generally believe that she has had the misfortune to swallow a packet of needles, and that they are gradually working their way out of the body.

The case of Miss Cox is one of this kind.

She was admitted into the Hospital under my care, on the 10th of September last.

The circumstances of her previous life, as far as we have been able to collect them from her own account, which is not, perhaps, altogether trustworthy, are these:—

She is unmarried, 34 years of age, and has had no other occupation than domestic service. She was born in Surrey, and has spent most of her life in different parts of that county.

Her family are very consumptive, and she has herself never enjoyed good health. She has had several severe illnesses; among the rest, rheumatic fever, at the age of 18; and, since she attained the age of 20, her menstruation has been irregular, and she has often had leucorrhœa.

It was in the spring of 1846, when she was in a state of mental distress, in consequence of the death of her father, and of ill treatment by her mother-in-law, that she thrust the needles and pins into her belly.

Not long after this, in the month of June of the same year, she was admitted into the Norwich Hospital, where she remained two months, for what was supposed to be an abscess of the liver.

While in the hospital she vomited a large quantity of matter, which led to the inference that the abscess had broken inwardly.

She said nothing about the needles, and their presence was not suspected.

Since that time she has been constantly under medical treatment in the country, and has had many blisters applied to different parts of the chest, and has received much attention from some kind-hearted ladies.

On her admission to the hospital, she complained of pain and tenderness at the pit of the stomach, and of pain extending thence round the lower part of the right side of the chest. Upon manipulation, there appeared to be many points of some firm material—feeling like the ends of needles or pins' heads—imbedded in the parietes of the belly at that part. She complained of increased pain and tenderness when these points were pressed, and also that the pressure caused a feeling of sickness. On inspection, several minute scars were seen on the skin at this part of the belly.

The same evening an incision was made down to some of these hard points, and four needles were extracted.

At this time her appetite was very bad, and she complained of a feeling of sickness every morning on waking, and vomited after taking warm food, in consequence of which she ate her meals cold. The bowels were costive, and there was a dry, brownish streak down the centre of the tongue. Her breath was short, and she had a dry cough. There was no feverish heat of skin; but she slept indifferently, and the urine was scanty and high-coloured, and caused a sense of scalding when it was passed. The menstruation had lately been regular, but painful: the monthly discharge was scanty, and she had constant leucorrhœa.

She refused to give us any information about the needles; constantly replying to our inquiries, that she knew nothing about them.

A great number of what were now clearly needles or pins were still felt imbedded in the parietes of the belly at the epigastrium; and it was inferred that most of her ailments resulted from the needles, some of which were deeply situated, and had most probably penetrated the coats of the stomach.

On the 13th of September ten more needles were extracted from over the stomach, and the next day another came out with the dressing.

Again, on the 30th, seven needles and one pin were extracted from the same locality.

She was at this time kept on milk diet; and, to remove some hysterical feelings, had a shower-bath, or, when she was not well enough to walk down stairs, was splashed with cold water every morning. The bowels were regulated by pills of aloes and myrrh.

The vomiting after meals ceased on the 14th, but she still continued to take her food cold.

On the 3rd of October, twelve more needles and two pieces of needles were removed from over the stomach.

The vomiting had by this time entirely ceased, and she felt somewhat better; and, in consequence, was ordered three grains of citrate of iron three times a day.

At the end of a fortnight, this was left off, on account of a recurrence of vomiting. She resumed it on the 11th of November, and has taken it, with occasional intermissions, almost ever since.

From time to time one or two needles or pins have been extracted; and the day before yesterday, Mr. Bowman, after much difficulty, succeeded in drawing out four, which were very deep-seated in the parietes of the belly, and some of which had probably passed beyond them, and transfixed the coats of the stomach.

Two or three more can still be felt; one at the epigastrium, and one or two on the right side of the belly, near the pubis.

The state of her stomach has greatly improved of late; but, in other respects, she remains much in the same condition as when she entered the hospital. Her appetite is indifferent, she sleeps badly, the bowels are costive, the urine is high-coloured, and there is still a dry streak along the middle of the tongue. She still complains of pain and tenderness at the epigastrium, and at the lower part of the belly, where, as I have just stated, one or two needles or pins may still be felt, and also, occasionally, of sharp pain under the false ribs on each side when she draws a deep breath.

There is reason to believe that some needles have passed through the walls of the belly, and are lodged in the organs within, beyond our reach.

Altogether, thirty-eight needles and five pins without heads have been already taken out. These were all imbedded in the parietes of the belly, in the epigastric region, in a space not much larger than the flat hand.

The needles have all become black. The pins, though slightly corroded, retain, for the most part, the bright colour of a fresh pin.

The needles are of different sizes and lengths; one of them is a very formidable weapon, just two inches and a-half long.

It is singular, that not one of the needles has an eye. From this it would seem, that she did not thrust them in all at once, as she has attempted to make us believe, but at intervals, as the needles, in the course of her work, lost their eyes, and became useless. The spirit of economy probably prevented her from thus disposing of a good needle.

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The needles and pins had set up no suppurative inflammation in the parietes of the belly; but some of them were surrounded by a thin layer of fibrous tissue, which made them very hard to extract.

I have told you that the case of Cox is by no means singular. If you will go over the way to the Museum of the College of Surgeons, you may see, among the pathological specimens, a hundred needles of various sizes, most of them entire, which were extracted from the body of a Danish Jewess; and in the printed catalogue you may read a history of the case, which was published by Dr. J. D. Herholdt, Professor of Medicine at Copenhagen, and which has been kindly transcribed for me by Mr. Johnson.

This lady is reported to have been healthy, and of acute mind, till 1807, when she attained the age of 15.

For three years from this time she had various hysterical disorders of the most aggravated kind, for which mesmerism and many medicines were tried in vain. In December, 1810, she recovered, and during the next eight years had good health.

The following are all the notes relating to the needles:—

"Jan. 8, 1819, she was seized with great pain and tenderness of the abdomen, which continued unabated for several days, and was attended with discharge of blood from the stomach and intestines. Feb. 2, a tumour, like a deep-seated abscess, was felt below the umbilicus; and ten days after this, the patient being much reduced, and apparently at the point of death, Professor Herholdt made an exploratory incision into the tumour. No pus, but a little blood flowed, and he extracted a sewing needle from the wound. Between the 12th of February, 1819, and the 10th of August, 1820, 273 needles of various sizes were extracted through incisions from various parts of the body, from 1 to 17 being extracted at each time, and from 1 to 5 months intervening between the operations. They were all blackened by oxidation, and many were broken.

"Whenever the needles came to the surface the patient had vomiting of blood and hiccough. She often complained of severe pain in the part from which the needles were afterwards extracted before they appeared.

"About this time the patient's mother had an attack of apoplexy, and became paralytic; and shortly afterwards the patient herself had paralysis of both arms, and aphonia.

"After the 10th of August, no needles appeared for some time, and the patient gradually lost her paralytic symptoms, and completely recovered her health and strength; but the whole abdomen was so marked with scars produced by the wounds from which the needles were extracted, that it appeared like a map.

"In May, 1821, a very large tumour appeared in the axilla, and between this month and July, 1822, more than 100 more needles were extracted from about the shoulder.

"Retention of urine, like that in 1810, and after this diabetes insipidus came on, and the patient had a copious discharge of fluid, like urine, from the vagina.

"After these discharges had continued a long time, both these, and a frequent discharge of air from the urethra, as well as paralysis of the right arm, and complete inability to leave her bed, were discovered to be feigned; for the patient being watched through a hole made in her door, was seen walking about the room, writing with her paralysed arm, and injecting air, through an enema-pipe and bladder, into her urethra.

"The history gives no information as to whether the patient swallowed the needles, or pushed them under the skin; nor does it state at what time she had done either of these."

Such are the notes of this singular history, recorded in the Catalogue of the College of Surgeons.

You will hardly entertain the doubt expressed in the concluding paragraph. It is no easy thing to swallow hundreds of needles. It is highly improbable that even one would pass down without sticking in the fauces or œsophagus, and causing great distress. That hundreds should do so is next to impossible.

There can be no doubt that, like our patient Cox, this lady thrust the needles through the skin into the parts from which they were extracted; and that the same proceeding has been adopted in all similar cases.

It is important that the medical man should not allow himself to be deceived in a case of this kind; because, as long as he is so, the patient will most probably continue the deceit

If the Danish Professor had known that the needles were thrust through the skin, and had confidently stated this to the lady, it is very unlikely that she would have gone on giving him so much trouble for nearly four years.

He was probably misled by her often complaining of severe pain in the part from which the needles were afterwards extracted, before they appeared. She did this, no doubt, with the view to deceive.

The same thing was done by the girl to whose case I just now referred, who made red patches on her body by rubbing the skin with ginger. In order to impose on the people about her, she complained much of pain in those parts for a day or two before the patches appeared, and before she had applied the ginger by which they were produced.

INTRODUCTORY LECTURE,

AT ST. GEORGE'S SCHOOL OF ANATOMY, MEDICINE, AND SURGERY.

By J. B. DANIELL, M.D., F.R.C.P.,

Physician to the Royal Pimlico Dispensary.

GENTLEMEN,—The progress of time brings us to this period of our session when I have again the satisfaction of addressing you, as your lecturer, on certain principles and practice of your future Profession, connected with morbid changes, either in the functional, organic, or structural conditions of the abdominal viscera, with their serous and mucous membranes.

Permit me to hope that I may experience at your hands the same marked attention which characterised the proceedings of my lectures when I had the honour of appearing before you as your teacher at the last session.

Let me also crave your kind indulgence in overlooking much imperfection in conveying in clear and precise language the accumulated information in the treatment of disease.

Length of days, and accustomed habit of lecturing, can be the only method calculated to establish the character and develope the powers of communicating clear, intelligible, well-adapted, and precise notions to an audience. I may have failed in these points,—I may have dissatisfied you or disappointed your expectations; but permit me to state, that, in these particulars, I did my best for your instruction; and, if my language was feeble in offering precise terms of expression, I can with truth assert, that my exertions and my energies were unabating to do my duty.

Let me, therefore, once more solicit your sustaining confidence, and, in the words of one of our beautiful modern poets, I must ask you

> "To give me heart and give me time,
> Till every string's accordant glee
> Is blended into harmony."

I have named the important word "time." Its car rolls on in silent, regular, and unperceived motion. It passes unknown to our senses; we neither hear it nor feel it. It advances in measured periods, over which we have no control, marked only in its progress by the limited duration of light and darkness.

The life of man is in the incessant walk of Time, wherein every moment is a step towards death; even our growing to perfection is a progress to decay; every thought we have is a sand running out of the glass of life. As

> "The uncertain glory of an April day,
> Which now shows all the beauty of the sun,
> And by and bye a cloud takes all away."

Let me then exhort you to value this important talent committed to each and all your special care. Observe accurately disease in all its forms. Take every occasion proffered you by your teachers *practically* to understand the treatment of medical and surgical cases. The matured observation of experienced practitioners support and nourish as it were the unripe study of the youth. See all you can; touch what you can; seek information where you can. Neither book knowledge, nor attendance on the routine lectures of your school, however accurate, or however diffuse, can give a sufficiently clear idea to the mind of the object described. Bichat, that ornament of our Profession,—the John Hunter of France,—made this memorable observation a short time before his death—"You ask me, said he, how I have learned so much. It is because I have read so

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little. Books are but copies; why have recourse to copies when the originals are before me. My books are the *living* and the *dead*. I study these." On the same subject an anecdote is related of a late distinguished member of the Irish University. He prized book learning on all subjects beyond demonstration. He possessed a most accurate knowledge of natural history, but from books alone. In a hard winter a poor little sparrow sought shelter in his College rooms. He seized it, and was determined not to lose the opportunity of showing his colleagues how soon he could reduce his book knowledge to practical application. He ran over in his mind classes, genera, orders, and species, and then triumphantly pointed out how rapidly he had arrived at a decision of the species before him. "And pray what is it?" said a fellow-professor. "What is it!" cried the indignant Vice-Provost; "as if I did not know. It is a little crow to be sure."

Allow me now to direct your attention to certain privileges enjoyed by your attendance at this School of Anatomy, Medicine, and Surgery.

Dr. Theophilus Thompson, my able colleague and valued friend, furnishes you with the best practical knowledge required in the treatment of those important derangements connected with pulmonary disorder or disease.

Dr. Theophilus Thompson's appointment at the Hospital for Consumption peculiarly fits him for conveying to you his opinions in these too often hopeless cases; and when we remember that nearly one-sixth of our population fall victims to pulmonary affections, the special importance of your zealous attention to his instructions cannot be overrated. Whilst such opportunities are offered to you in gleaning facts under Dr. Thompson's directions at the Hospital for Consumption, you are advancing your knowledge most efficiently in the treatment of the organs of respiration.

I may with truth apply to my worthy and talented colleague, "Nemo in re medicâ clarior nec in virtute præstantior."

I cannot but dwell for a moment on the valuable statistical reports presented in the medical reports of the Hospital for Consumption. It cannot be doubted that it is an object of the first importance to detect the existence of phthisis a t its very commencement, as it is well known that in its progressive development of diseased structure, the patient's condition is almost hopeless; whereas, many examples occur, where the detection of the disease at an early period has directed the adoption of such remedies as are calculated to cure it. Additional means of diagnosis are offered in detecting disease at its early stage. One of the most important is by means of an instrument named the spirometer, intended to ascertain the capacity of the lungs for air, and which may be expected to give indications of the extent to which they are obstructed by tubercular or other deposits. To Dr. Hutchinson we are much indebted for the advantages offered by the use of this instrument.

These valuable reports of the Hospital for Consumption bring before us the subjects connected with phthisical cases, such as influence of age, influence of social condition, influence of trades and occupations, of hereditary predisposition, spirometric observations, hæmoptysis, duration of the disease, and treatment.

Hence the importance of the subject. During the last week, the class of diseases comprising the respiratory organs are considerably advanced, the deaths having risen from 264 to 321—a result during unseasonable warmth and moisture. It is singular that, during the higher mean temperature of the week, bronchitis, pneumonia, and phthisis were fatal in 120, 96, and 124 cases respectively in the previous week. They are now 152, 101, and 147.

I cannot, however, refrain from adding my honest admiration of the untiring industry, able efforts, and undiminishing energy of your teacher on the interesting and important subjects of "Materia Medica," and Botany. I allude to Dr. Lankester. I was, with you, a student at his Lectures on Botany during the summer session. From the abundance of his well-stored facts and regulated arrangements, I learned much useful and agreeable information. I shall again hope to meet you in this theatre, on the same occasion, during the next summer session. For, whatever number of years may have passed over our heads, whatever may be the extent of our experience, every day brings its own knowledge; there is still something new to seek, some deficiencies to supply, and some errors to correct in medical and scientific subjects.

All the world is a school, and every man is a student in it. Some are dull and idle; but each ought to be diligent and industrious, as upon his faithfulness depends his weal or woe.

When the great progress made in chemistry within a few years is considered, and the number of able scientific men who are at present actively employed in cultivating the science, it is impossible not to feel certain of its rapid advancement and future applications.

Every chemical investigation, however insignificant, which lays claim to attention, must in the present day, from a certain number of observations, and enable us to draw some conclusions, whether extended or limited. The imperfection of the method or system of research adopted by physiologists can alone explain the fact, that for the last fifty years they have established so few new and solid truths in regard to more profound knowledge of the functions of the most important organs—of the spleen, of the liver, and of the numerous glands of the body; and, unless physiologists become more generally acquainted with the methods of research employed in chemistry, the progress of physiology will be materially impeded.

The connexion between chemistry and physiology is the same, and in another half century it will be found impossible to separate them.

In connexion with the anatomical and surgical tuition at this school, there is offered for your instruction every facility which experience, talent, and observation can furnish. You have at all times free and unreserved communication with your teachers, and can thus glean from them the accumulated results of their harvest in the spheres of literature and science.

The Profession in which you are engaged is undoubtedly one of the noblest and most interesting subjects that can engage the attention; and, its practice being essentially devoted to the alleviation of human suffering and the promotion of the general welfare, brings with it the highest satisfaction and pleasure.

The members of our Profession should therefore, with diligent research and painstaking industry, be acquainted with those standard works of most valuable observations which our Greek and Latin predecessors have transmitted to posterity. The definite, clear, and precise character of the Latin and Greek languages were the common vehicle, for many years, of all that was elegant, polished, and refined in literature. The force and beauty of their style would, even in our own professional studies, independent of its feeling and elevated productions in poetry and prose, abundantly repay us the trouble of mastering these languages. As a proof of modern taste in admiration of the authors' most valuable writings in our Profession, several books of the "Old Man of Cos," the unforgotten Hippocrates, have been translated into English. Let me counsel you to read them attentively, and I question much whether you will not be disposed to yield assent to the "plagiarism" of modern authors in many instances of a supposed novelty in the principles and treatment of disease. By the intended curriculum of the College of Surgeons, a knowledge of Greek, Latin, and mathematics at the examinations will be required—an arrangement that does the greatest credit to those Fellows of the College who proposed it. Such salutary measures are in every way calculated to raise the character of our Profession, by advancing the accomplished acquirements of its Professional members.

I hesitate not to affirm, that the respectability of our and every profession is derived from the cultivated and educated members of its body; and in proportion as the members of a profession acquire knowledge and become acquainted with the varied tributary streams of its application, the more will "knowledge" be found "power."

It is by cultivation we improve our moral, physical, intellectual, vegetable, and inorganic condition.

You cannot change the nature of a plant or animal; but by cultivation—the ferocious animal becomes mild—the wild, domestic.

The marble in a quarry is obscured, its beauty concealed, its utility unappreciated; but at length, under the hand of cultivated application, its polish becomes developed, and all its beauties displayed.

Those who look upon the surface of society, and who hear of the large fortunes accumulated by a few successful medical or surgical practitioners, may think that the practice of the medical profession is at once the sure and ready road

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to independence and wealth. How erroneous, how false is such an opinion! The public seem to have no knowledge of he difficulties, and, consequently, no sympathies for the struggles of those who, bred with the feelings and notions of gentlemen, and obliged at all hazards to keep up an appearance of respectability, are compelled to wait quietly and silently for that employment which they may either not obtain at all or too late in life to afford them the opportunity of providing for their families.

Let not these fluctuating conditions discourage the energies and exertions of the honourable and enlightened professional practitioner. Let him remember, that some flowers are appointed to bloom till December, and others to perish in May. The rose that lives but a day has fulfilled as entirely its own vocation as the oak that stands for a century. The one blooms as queen of the garden, the other as monarch of the wood. For both there is an appointed period. The mariner has sailed long enough who reaches the harbour; the soldier has fought long enough who gains the victory; the steed has run long enough when he touches the goal; and the Christian has lived long enough upon earth, be his days ever so few, who has made his way to heaven.

Dr. Daniell adverted to the question of medical education, by which the public are to receive the benefits from such well-directed labours. "Reasoning," said the learned Professor, "upon the elevated position which medical education should occupy in the mind of every man in Great Britain, I should be induced to infer, that no topic does engage the thoughts of every educated man more warmly, as self-security, health, and even life, are involved in the question; none is more fostered by all men, of every shade of politics and rank; and that legislation upon this subject, and wholesome legislations and restrictions, must constitute the basis of the medical law of this enlightened country.

Dr. Daniell next dwelt, in very forcible language, on the necessity of the students adopting the sentiments and the manners of gentlemen. "Not only," said the Professor, "would I insist on a consummate knowledge of our professional resources, but a *gentlemanly feeling*, openness, and candour, which disdain all artifice, which invite free inquiry, and boldly bid defiance to all that illiberality to which the Medical Profession has been and is so exposed. And now, lest words of mine should have fallen listlessly on the ears of any, I will close with the soul-stirring sentiments of Dr. Gregory:—

"If," says he, "knowledge is power, and you love power and influence—pursue it. If knowledge carry in its train extended usefulness, and you love to be extensively useful in your Profession and the world—pursue it. If knowledge, united with uprightness, bring esteem and confidence, and you love to be esteemed and confided in—pursue it. If knowledge, rightly conducted, and directed to right ends, brings you nearer to the Fountain of Knowledge, and thus makes you more happy, while it enlarges your capacity of conferring happiness upon others, and you love to be happy and to confer happiness—pursue it."

ORIGINAL COMMUNICATIONS.

EXPLANATORY OBSERVATIONS

ON THE MORE SPEEDY COLLECTION AND ADJUSTMENT OF URINARY SEDIMENTS—SPONTANEOUS AND ARTIFICIAL.—ON MICROSCOPICAL EXAMINATION, AND ON THEIR MORE PROMPT AND IMMEDIATE DIAGNOSIS.

By ROBERT VENABLES, A.M., M.B., Oxon.,
Incept. Cand. Roy. Coll. Phys., &c., &c., &c.

Since the appearance of the second edition of my essay on the "Elements of Urinary Analysis," &c.,(a) I have been applied to both personally and by letter, from professional gentlemen and others, complaining of difficulties which they experienced in collecting and adjusting urinary deposits for microscopical examination. Several general practitioners have represented to me, that they experience great, sometimes insurmountable, difficulties, in collecting and preparing specimens according to the ordinary instructions. To allow sediments to subside, and to wait till this has taken place, is quite impossible with many whose time is fully occupied by their professional engagements; and the consequence is, they are often compelled to treat their cases, quite uncertain as to the real nature of the urinary sediment; when possibly such knowledge may be of essential moment, and if possessed might materially influence our adaptation of the means of cure. Expedition and economising time are of the greatest moment to myself, both in lecturing, and in those urino-pathological inquiries which I am so often called upon to make. I cannot, therefore, more effectually contribute to the general professional convenience than by relating my own plan of proceeding, and submitting it for adoption by others if they should feel so disposed.

In one of the former numbers of the *Medical Times* I detailed a method, which I found not only certain but very expeditious in detecting the oxalate of lime and other deposits. But even this method has been complained of, the filtering occupying more time than can always be spared. It is the object of this paper to show, that even a still more expeditious process may be successfully practised.

When a specimen of urine is to be examined, it must present to us one or other of the following conditions:—it either contains a deposit or it does not. If it present the latter condition, the circumstances require no special observations here. But, if it contain a deposit, this must either have subsided, or it will be found generally diffused through the urine, rendering the fluid what has been called *turbid*. We shall first consider the deposit as having subsided. In this case, the supernatant urine should be carefully poured off, so as to leave the deposit undisturbed at the bottom of the bottle, which should now be corked up and inverted, so as to let the sediment come in contact with the cork; the bottle is then to be re-erected and the cork withdrawn. Innumerable particles of the deposit, whatever its kind, will be found adhering to its end, which is to be applied, and gently pressed upon the flat or plane surface of one of the glass slides or supports. An abundance of the deposit will adhere, and should be covered with a slip of thin or French glass. The object is now ready for microscopic examination.

If the sediment be generally diffused by shaking during the carriage, or otherwise, by merely inverting the bottle for a few seconds, re-erecting, and then applying the cork as already explained, enough of any urinary sediment may be collected and transferred to the slide, and thus be prepared, in a few seconds, for microscopical examination. I have by this means repeatedly discovered and exhibited intermixtures of oxalate of lime and uric acid, oxalate of lime and urate of ammonia, and of the latter with crystals of uric acid, during the short space of an ordinary consulting visit; and this when the oxalate, in consequence of various intermixtures, had escaped the detection of considerable expertness and address in urinary examinations. By this process I can detect the nature and composition of almost any urinary sediment in less time than would suffice for taking the specific gravity by the urinometer. For instance: phosphate of lime with the double phosphate of magnesia and ammonia, forming the "fusible" or mixed phosphates, blood-discs in hæmaturia, the fat globules so frequently diffused through chylous and other varieties of morbid urine. In fact, whatever the nature or variety of intermixture, sufficient of each and every principle will be found attached to the cork, so as to enable us to recognise them.

That all the matters composing a deposit, and diffused through the urine, may be detected and recognised by an expert and practised explorator, admits of no question or dispute; but it is the facility and expedition with which the exploration may be made, that in my mind give the process just described its value, and which have induced me to submit it for the benefit of those to whom time and promptness are objects of some consideration.

Although a little practice would enable any one—even the least conversant with urinary manipulations—to remedy or provide against some little difficulties occasionally experienced, still, perhaps, it will be as well to notice such as are sometimes met with, and the means which I myself adopt for overcoming them. The objection to the pipette for the transfer of a drop for microscopical examination is, that the drop almost always contains too much fluid, so that there is

(a) Published by Knight, Poster-lane, Cheapside.

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a considerable depth between the upper surface of the fluid and the surface of the glass support upon which it rests. This is often quite sufficient to float the slip of French glass, and on pressing it down, such strong currents are caused in all directions in the fluid, that any very minute light crystals, as octohedres of oxalate of lime, or indeed tolerably heavy crystals are carried away from under the slip of thin glass, and of course out of the sphere of vision. This is so powerful a cause of disappointment, that I have found crystals of oxalate of lime, intermixed with uric acid in urine, the former of which had escaped the observation, or rather detection, of very able and expert exploratorsr; so much, that, upon a very recent occasion, a medical gentleman, whose patient called upon me, would not believe but that I had deceived myself; and it was not until he saw the process that he became convinced.

A difficulty of this sort can never occur with the cork, because it rarely, if ever happens, that more fluid adheres than is barely sufficient to produce distinctness of outline and clearness of vision in the object. It may happen, from unusual viscidity, that a greater quantity of fluid may adhere to the cork; but this is easily remedied by gently and slowly inclining, and allowing the bleb or drop to collect at the most dependent part of the edge of the cork, and touch it with a thread, camel-hair pencil, or even the lip of the bottle. The crystals may then be transferred to the slide, and they will be found resting on the surface of the support; nor is there any danger of their being swept by any currents out of the area of observation, as there will not be fluid enough to float them, or currents strong enough to carry them away.

In certain cases, when the sediment has subsided and collected at the bottom of the vessel, it may be intermixed with various matters—products of decomposition, or the crystals and other minute objects may be so numerous and crowded together, that their forms and appearances will be obscured, possibly completely concealed, and so escape detection. This frequently occurs with the urates, phosphate of lime, but more remarkably with the oxalate of this earth. This inconvenience may be remedied by transferring a portion of the sedimeut to a test tube, adding a sufficiency of clear or distilled water, and shaking up the whole, so as to diffuse through the fluid in mechanical suspension. If the tube be then corked and inverted for a few seconds, on re-erecting, a sufficiency of the deposit will be found attached to the cork, and may be transferred to the slide in the manner already explained. If the sediments so collected be now examined in the microscope, they will be seen perfectly clear, distinct, and sufficiently apart, to exhibit their forms, outlines, optical and other distinguishing properties. We shall thus be enabled to recognise the crystalline appearances of the uric acid,—double phosphate, commonly called "triple," and oxalate of lime; and also the amorphous characters of those uncrystallised compounds—phosphate of lime, the urates of ammonia, and of the other alkalies and earths. These and the various intermixtures which occur in urine in which they have remained long, and been rendered indistinct by the changes which spontaneously occur under such circumstances, are rendered perfectly evident by this mode. This expedition and saving of time must prove a great advantage in the examination of urine—such as it is constantly falling to my lot to make—sent up from the country from long distances, and probably kept till spontaneous decomposition has rendered microscopical examination by the ordinary methods, not only difficult, but extremely obscure.

I have also lately had one or two applications requesting information as to the easiest and quickest method of distinguishing phosphate of lime; the opaqueness and amorphous forms of which present no optical or microscopical characteristics sufficiently distinctive. In the "Elements of Urinary Analysis," various chemical and other methods are pointed out; but that which I am about to detail will be not only quick, but easy of performance.

Phosphate of lime may be readily confounded with mucus, or with pus, with which, in large quantity, it is often intermixed, and this greatly increases the difficulty. It was upon one occasion or two of this sort, in which I was obliged to correct the mistake of taking phosphate of lime for a purulent deposit, and upon another for urate of ammonia, that I determined to notice the subject in this place.

In many instances, I have found the phosphate of lime forming exclusively the whole of the deposit, with perhaps the exception of a mucous or pus globule or two; and this has occurred to me so frequently, that I have felt greatly at a loss to understand the assertion by Dr. Prout, of the extreme rarity of such a deposit(a) as an idiopathic affection. I meet with it tolerably frequently, and, in a fair proportion of instances coming under my own observation, the characters and phenomena were as much idiopathic as those of any other of the diatheses.

But, however rare pure phosphate of lime, the intermixture with the double or prismatic phosphate is by no means very uncommon. The prisms of the double phosphate are not difficult of detection; for their form and crystalline appearance cannot be easily mistaken; but the amorphous intermixture of phosphate of lime is not so easily recognised; nor is the difficulty at all diminished by the mucous or mucopurulent exudation with which such forms of deposit are usually intermixed.

To detect the phosphate of lime, a portion of the urine turbid with its sediments should be set aside; and when the deposit has subsided, the supernatant urine is to be poured off, and a portion of the deposit transferred to a test-tube, and well washed by repeated washing with distilled water, till freed from all traces of adhering urine. A small portion of the washed sediment is to be next dissolved in a few drops of acetic acid diluted with distilled water. Whether the sediment consist wholly of the phosphate of lime, or of the mixed phosphates, a perfectly clear and colourless solution will be the result, unless there be mucus or pus, or both intermixed. In this case, or if there be opalescence, or any want of clearness or transparency, the solution should be run through the filter, through which it will pass rapidly, perfectly colourless and transparent. The acetic solution is next to be treated with a weak solution of oxalic acid, when it will in a very short time, if any salt of lime were present, assume a degree of turbidness proportionate to the quantity of lime present. After adding the solution of oxalic acid, the tube should be corked up and inverted, so as to allow the oxalate as it forms to subside and attach itself to the cork. After a few seconds, if the tube be erected and the cork withdrawn and applied to one of the glass supports, the microscope will show numerous octohedrons of oxalate of lime; thus proving that a salt of lime formed part of the deposits, and must have been the phosphate, as, had it been the carbonate, the solvent action of the acetic acid would have been attended with *effervescence*.

Oxalic acid I consider preferable as the precipitant to oxalate of ammonia, because, although not so very immediate as the oxalate of ammonia, the resulting octohedres are larger and more easily recognised. This process, too, has the advantage of precipitating the oxalate of lime pure and unmixed, and consequently free from any causes of obscurity or distortion of outline, or of the other properties of recognition.

The acetic acid, though it dissolves the prismatic phosphate and, under particular circumstances, the phosphate of lime, yet will neither dissolve nor hold in solution the oxalate, which therefore separates in the octohedral form, and perfectly secured from any mixture of other salts, all of which it will hold in solution. The double phosphate of magnesia and ammonia, if it exist in the solution and be required, may be precipitated by neutralising the excess of acid by means of potass or its carbonate. When time presses, we need not wait for the filtration of the whole of the acetic solution, but allow the first few drops of the filtered fluid to pass into a narrow tube containing a diluted solution of oxalic acid. When, even no turbidity whatever can be perceived, if the tube be corked and inverted for a minute or two, the octohedres will be collected on the cork and may be transferred to the glass slide.

As previously stated, although the prismatic phosphate may have its appearance in some degree obscured, still never so much as to render its appearance and identification impossible or even questionable. If, then, we wish to decide the question merely as to phosphate of lime, we have only to add

(a) Dr. Prout, in speaking of the different diatheses, says of the phosphates: "Of the remedies best suited to a deposition of the phosphate of lime, considered as a separate disease, I can say but little. The affection is so rare, that in the last twenty years I have not seen a dozen well-marked instances." I cannot altogether assent to this proposition. With respect to many of the occasions of urine depositing phosphate of lime solely, I must own I know nothing of the facts, nor have any opportunity of becoming acquainted with the histories. The urine is sent to me to ascertain the nature of the deposit, and the general characters of the secretion, and there all my opportunities end.

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solution of hydrochlorate of ammonia, agitate the mixture, and precipitate the filtered fluid by solution of oxalic acid or oxalate of ammonia, octohedral crystals(a) will be obtained equally as before. The phosphate in its hydrated or gelatinous state, as when recently precipitated, is soluble in hydrochlorate of ammonia, but the prismatic crystals are not; consequently, the two salts may be thus separated.

I was first induced to submit these few explanatory observations to the Profession, as rendering inquiries easy and expeditious, which many have represented to me as tedious and difficult. This I consider as of peculiar advantage in the discovery of the presence of oxalate of lime. I am, therefore, not a little surprised on perusing the following observations of Dr. Bence Jones. Speaking of the oxalate of lime, he observes :—

"It requires no skill, and no preparation of the urine, to find the oxalate of lime. Generally, oxalate of lime octohedra are found without the least difficulty," &c.(b)

I must confess that I cannot agree in this statement generally, or even as a general principle. In hospital establishments and public infirmaries, where the patients are under constant *surveillance*, and where all those difficulties and obstructions which occur in private practice can be met and obviated, the discovery of oxalate of lime may prove tolerably easy in sufficiently practised hands, but to this, as a general proposition, I must dissent. In this view, too, I think I am supported by Dr. Golding Bird, who gives special directions for their collection and adjustment.

With respect to time, however, Dr. Bence Jones admits that such is required. "The urine," he says, "should be left to stand for twenty-four hours in a bottle or tall glass; the upper part of the fluid should be poured off, and the last few drops remaining in the glass or bottle should be examined."(c)

By the plan proposed little or no time—beyond a second or two—is required, and we have the advantage of seeing the crystals distinct, as well as those principles which may co-exist with them in the urine, and these equally distinct and recognisable.

The authority above noticed also throws some doubt upon the nature or composition of the octohedral crystals. He says:—"Generally oxalate of lime octohedra are thus found without the least difficulty; sometimes in large crystals, very frequently in aggregations of small octohedra, forming microscopic calculi. Dr. Golding Bird was the first observer who stated that these crystals, which had for some time previously been observed in urine, were oxalate of lime. The chemical proof is difficult, if not impossible, to obtain, for the octohedral crystals are rarely present in sufficient quantity to admit of perfect examination."(d)

I must say of these statements, that I myself in no way agree with them, neither do I think the question of such insurmountable difficulty; nor are the crystals always so scanty in quantity as to evade the chemical proof of their composition. The first proof I would offer is, that from a specimen of almost any urine, previously acidulated with a little acetic acid, oxalic acid will throw down *octohedral crystals*, presenting in every particular the microscopical appearances and characters of those occurring spontaneously in urine.(e) Secondly. If the gelatinous phosphate of lime precipitated from the solution of chloride of calcium by phosphate of soda, be re-dissolved in diluted acetic acid, and the acetic solution treated with solution of oxalic acid, octohedres, precisely like those observed in the urine, will be thrown down. Octohedres, also, of precisely similar appearance, may be thrown down by oxalic acid from the solution of the same phosphate in hydrochlorate of ammonia; and, still more speedily, by oxalate of ammonia as the precipitant.(f)

With respect to the quantity for chemical proof I can only say, that I have at the present moment frequent occasion to examine the urine of three individuals, depositing the octahedral crystals in large quantity, intermixed with rhombs and prisms of uric acid; and, in a fourth case, with urate of ammonia. If the micturations of twenty-four hours, of any one of these cases, be collected, the octohedres will be found in quantity sufficient for any chemical proof of composition, and I have determined, qualitatively, the chemical composition of all. The following is the process adopted :—

The urine contained uric acid intermixed with the octohedres, and having remained at rest, was decanted, and the subsided sediment washed with distilled water, and then agitated with a dilute solution of potass,(a) at the temperature of 98° Fahr. Being left at rest, a cloudy, mucous-looking sediment, rather bulky, occupied the lower part of the jar. The supernatant fluid being poured off, and the precipitate washed, was allowed to subside. Collected and dried, it was treated as follows :—

A portion heated in a platinum spoon over the spirit lamp, for a few seconds, dissolved with effervescence in dilute acetic acid. Another portion, ignited before the blowpipe, dissolved very sensibly in water reduced to the temperature of 31° Fahr.; the solution had a strong alkaline reaction. Both these solutions gave precipitates with oxalic acid, which, examined with the microscope, were found to consist of octohedral crystals, thus leaving no doubt of the base being lime.

To determine the nature of the acid, a small quantity of the collected crystals were dried, by being placed under a jar, over strong sulphuric acid. They were then distilled with concentrated sulphuric acid in a tube retort, and the products received in a graduated tube over mercury. A volume of gas was the product, one half of which disappeared on agitation with solution of barytes, and the remaining volume burned with all the characteristics which distinguish the combustion of carbonic oxide. These facts, I think, put the question of the composition of these crystals beyond all possibility of doubt.

There is another remark of Dr. Bence Jones which I think it right to notice here. He says :—"Oxalate of lime is so insoluble in distilled water, that it might well be considered insoluble in the urine. Its occurrence in the form of crystals shows, however, that it cannot be insoluble, for crystalline form implies deposit from solution. Careful observation of the urine also shows that the oxalate of lime is soluble therein."(b)

Previous solution is not necessary to crystalline form. Fused sulphur crystallises on cooling; arsenious acid sublimes in octohedral crystals. But the authority above noticed states a more important fact, namely, that a gentleman, aged 59, passed about a drachm of urine at half-past ten in the morning. It was examined immediately, but no oxalate of lime could be detected, although this principle was expected and looked for. On examining, at nine the following morning, a drop under the microscope, myriads of small crystals of oxalate of lime were seen.(c)

For myself, I can only say, that I have never been able to detect oxalate of lime crystals in urine which had been filtered before being set aside. I have filtered urine immediately it was passed, and which was known to contain octohedral crystals; but no such ever appeared in the filtered portion; nor could I precipitate them by any re-agent, chloride of calcium or acetate of lime. I know of no urinary re-agent capable of holding oxalate of lime in solution; and it is impossible to conceive that oxalic acid may be generated in the urine after it has been emitted from the body. Dr. B. Jones, speaking upon the question, further observes: "I had for some time passed over similar observations, by supposing that my first examination had not been made with sufficient care; but, from the above, and other cases that have since occurred to me, I am certain that it sometimes requires many hours for the oxalate of lime to crystallize out. You cannot say that no oxalate of lime exists in any urine until at least twenty-four hours have elapsed from the time of the passing of the water."(d)

Oxalate of lime being insoluble in all the organic acids, the only way in which these statements can be reconciled is by supposing the co-existence of free hydrochloric or nitric

(a) The forms, appearances, and other properties are described in the "Elements," &c., and I omit all allusion here. I strictly confine myself to the objects of this paper.
(b) Animal Chemistry, pp. 65, 66.
(c) *Ubi ante.*
(d) Animal Chemistry, p. 26.
(e) The octohedres will be mixed with uric acid unless the acidulated urine be previously filtered.
(f) The octohedrons are sometimes so minute that they appear opaque and black like phosphate of lime, for which I have seen them mistaken. They may, however, be distinguished by flashing the light through them; by a little dexterity in moving the mirror they glisten occasionally, which phosphate of lime never does. They may also be distinguished by polarised light. But an objective of one-eighth or one-twelfth of an inch focus, with a shallow eye-piece, are the proper powers, and will bring out the octohedral outline perfectly clear and well defined.

(a) This dissolved the uric acid and carried it through the filter.
(b) Animal Chemistry, pp. 64, 65.
(c) Animal Chemistry, pp. 64, 65.
(d) Animal Chemistry, p. 65.

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acid; together with urea, and some principle capable of exciting decomposition of the latter, and its conversion into carbonate of ammonia. In this way the acid would ultimately become neutralized, and its solvent powers suspended, and of course the oxalate of lime would in such circumstances separate. I have decided this question by experiment. Oxalate of lime may be dissolved in the acid, and re-precipitated by an alkali added till neutralization has been effected.

[To be continued.]

ON THE PATHOLOGY OF THE UTERUS; ITS ANATOMY AND PHYSIOLOGY.

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(Continued from page 10.)(a)

Part II.—THE PHYSIOLOGY.

THE MOVEMENTS OF THE UTERUS.

In June, 1847, a paper was published in the *Lancet* and *Medical Gazette*, wherein I endeavoured to show, from anatomical details, similar to the preceding, and from the action of ether during parturition, that the contractions of the uterus were independent of the reflex action of the spinal cord, were similar in character to the contractions of the heart and the intestines, and were dependent for their production upon the same cause which produced the movements in these viscera. In the "Cyclopædia of Anatomy and Physiology," article "Nervous System," Dr. Todd adopts a similar view:—"As to the expulsion of the fœtus in parturition, while I am willing to admit that the physical power of the cord excited by the sensitive nerves at the neck of the uterus, may exert some influence on the contractions of the uterus, it seems to me quite evident that the actions of this organ are reflex only to a very slight degree."

In the paper referred to, I considered the contractions to be only peristaltic in form, and dependent on the ganglionic, or true sympathetic nervous system for their production. This form of action has been correctly described by Dr. Tyler Smith, "Op. Cit.," p. 39: "All muscles contract when subjected to immediate irritation, after they have been cut off from the influence of the cerebral and spinal centres, and when they have been as far as possible deprived of their nerves. In the case of muscles supplied by cerebral or spinal nerves, the contraction is limited to the spot irritated, and ceases with the removal of the irritation; but in organs partly or wholly supplied by ganglionic nerves, as the heart, bladder, intestines, œsophagus, &c., the motion produced is of a peristaltic kind, spreading generally in a vermicular manner, to a distance from the point of irritation, and continuing for some time after the irritation has ceased. The uterus is eminently endowed with this form of contraction. When one point of the uterus is stimulated through the abdominal parietes, the contraction extends with the utmost rapidity to the whole organ; the same occurs when the fingers are made to irritate any point of the internal surface of the uterus. Harvey beautifully described this peristaltic action of the uterus in the doe; William Hunter saw it in the cat and rabbit; Professor Muller in the uterus of the rat and the oviduct of the turtle. I have seen the same thing in the uterus of the guinea-pig and other animals."

Dr. Tyler Smith, however, considers that the uterus has other forms of action. He says:—"The forms of motor action which it will be necessary for us to consider, are—the voluntary, the emotional, the excito-motor or reflex, and lastly, the peristaltic or immediate."—P. 32. The peristaltic or immediate action has been already described; the other forms, however, remain to be considered. It would have been difficult to conceive what was meant by the voluntary or emotional action of the uterus, had not Dr. Smith furnished us with the explanation. A voluntary or an emotional action of the uterus would indeed be a singular phenomenon; for then we must believe that the uterus possesses within itself the power of being affected by emotions, and of exercising voluntary action; in fact, as possessing a separate brain and nervous system. No such thing, however, is really meant, but simply that the actions of the uterus may be affected by the volition or emotion of the brain. In describing the forms of action, Dr. Smith does not appear to have perceived the distinction between an emotion affecting the uterus through the influence of the brain, and an emotion of the uterus itself, and hence the confusion which he has introduced in the terms. This is further evident from the consideration which he gives to the subject. In speaking of these forms of action separately, he says, "the influence of volition with reference to parturition," and, again, "let us examine emotion as a motor power;" thus returning to the influence of the volition and the emotion of the brain upon the actions of the uterus, in the description which is given of the so-called voluntary and emotional uterine actions. However, in speaking of the reflex or excito-motor action of the uterus, the confusion between the terms *action* and *influence* is retained. He says, "we have next to consider *reflex* uterine action;" whilst in the description which follows we find it is the influence exerted upon the uterus by stimuli applied to distant parts of the body, acting through the medium of the reflex function of the spinal cord, and not a reflex action of the uterus itself.

On considering the contractions of the uterus, I have always thought that the apt simile of the late Professor Reid, applied to another part of the nervous system, well illustrated the subject: "The movements of a horse are independent of the rider upon his back; in other words, the rider does not furnish the conditions necessary to the movements of the horse; but every one knows how much these movements may be influenced by the hand and heel of the rider." To apply this to the present subject, the contractions of the uterus are independent of the cerebro-spinal system, though every one knows how much these contractions may be influenced by the actions of this system. According to this view, we have to consider—

1. The movements of the uterus; peristaltic in form, and effected through the agency of the true sympathetic system.
2. The influences which affect this movement—
   a. Through the brain, as in volition and emotion.
   b. Through the spinal cord, as in reflex action.

1. THE MOVEMENTS OF THE UTERUS PERISTALTIC IN FORM, AND EFFECTED THROUGH THE TRUE SYMPATHETIC.

Although I do not mean to say that direct irritation, acting upon a portion of inorganic muscle, will not cause the point irritated to contract, independent of the influence of the nervous system, yet the vermicular or wave-like contractions of the uterus, which spread from one part irritated over the whole organ, appear to require the influence of the sympathetic system for their proper accomplishment. "In organs partly or wholly supplied by ganglionic nerves, as the heart, bladder, intestines, œsophagus, &c., the motion produced is of a peristaltic kind, spreading generally in a vermicular manner to a distance from the part irritated, and continuing for some time after the irritation has ceased. The uterus is eminently endowed with this form of contraction."—("Op. Cit.")

That the contractions of the heart and intestines are independent of the action of the cerebro-spinal system is shown by a variety of evidence, part of which is the continuance of the contractions for some length of time after these organs have been removed from the body; but that the contractions of the uterus at the full period of pregnancy, or when induced by other means, are equally independent of the cerebro-spinal system, and may of themselves effect the expulsion of the child, is more difficult to be shown. Although I cannot go the length of the reviewer I have so often quoted, in saying, "The muscular action of the uterus we regard as essentially peristaltic and independent of nervous stimulation," (p. 30,) yet I agree with the opinions in the following quotations from the same:—"That the uterus is

(a) Dr. Radcliffe Hall informs me, in a letter which I have recently received from him, that the quotation from the article in the "British and Foreign Review," at the commencement of my last paper, "does not represent" his views. He adds, "you will see (on referring to the papers in the 'Edinburgh Medical and Surgical Journal,' October, 1846, pp. 102 and 325) that I was quite prepared for your present conclusion as to the uterine nerves not undergoing enlargement in the gravid state. I don't understand how the dissector of any of the lower multiparous animals could entertain the opposite opinion. And secondly, that my view of ganglionic nerves causing afflux of blood is not by their 'action on the arterial coats'; that office, I believe, belongs to purely *spinal* nerves, and they can only brace the tubes, and, by lessening calibre, increase quickness of flow, not fullness—but by increasing molecular activity of tissue and increased *attraction* of blood in consequence of this."

susceptible of being excited to contraction by reflected stimulation no more proves that its ordinary actions are dependent on the spinal cord, than the influence of remote excitants upon the actions of the heart and alimentary canal proves that these actions are essentially reflex in their nature. In fact, it does not appear to us at all difficult to show, that the influence of the nervous system on the uterus is precisely of the same character with the influence of any stimulus directly applied to that organ, and is very different from the ordinary forms of reflex action, as seen in the muscular system of animal life. Thus it appears, that when uterine contraction is excited through the nervous system, it is not by a new and powerful agency taking the place of the feebler powers of the organ itself, but by the application of a new stimulus, which causes remote irritation to have the same effect as one of a direct or immediate kind; so that the peristaltic contractions of the uterus are really its only mode of expelling its contents."—(P. 14.) As, however, much difference of opinion still exists, whether the contractions of the uterus are dependent or not for their commencement and continuance upon the cerebro-spinal system, I will give hereafter the evidence in support of both opinions.

2. THE INFLUENCES WHICH AFFECT THE MOVEMENTS OF THE UTERUS.

(a) *Through the Brain—Volition.*—The influence of the will upon the contractions of the uterus is sufficiently well-known. Although the will has no distinct power over the uterus to cause it to contract or to stop these contractions when once established, and although the contractions will continue when the power of the will is temporarily suspended, as during coma or complete intoxication, or when under the influence of anæsthetic agents, yet every practical accoucheur must have seen cases where the influence of the will was obvious in increasing the contractions of the uterus when deficient in force, or in retarding these contractions when violent, or when they are exceedingly painful. Increasing the contractions, as when, from dread of instrumental interference, the patient exerts her will, and, adding to the efficacy of the previous languid contractions, effects the expulsion of the child without the aid of the accoucheur. Retarding the contractions, when, from the dread of the suffering they produce, the patient exerts her volition to keep them away as much as possible—in the language of the lying-in-room, "keeping back her pains." Cases similar to the following are also not unfrequent. A lady who has had two or three children, is suddenly taken in labour, and the accoucheur being from home, has to be sent for, when she voluntarily restrains the force of the contractions, to retard for a time the birth of the child. As soon as the accoucheur arrives the contractions are allowed to take their course, and the labour is quickly over, the patient telling the accoucheur that she "kept back the pains until he came to her assistance." The influence of the will is also said to affect the contractions of the uterus, when the patient voluntarily closes the glottis, and, drawing inwards the walls of the abdomen, is said to "bear down." It is undoubted that the force of the contractions is increased by this means, but it must be remembered that two influences are in action; the influence of the will, which voluntarily closes the glottis with a definite object in view, being transmitted to the uterus, and the influence of the local pressure of the uterus by the surrounding viscera, and which appears to be the more powerful of the two. It is thus the combined actions of the will and of local irritation which produce the increased contractions of the uterus in this instance, and not the single influence of volition.

Emotion.—The influence of emotion upon the contractions of the uterus is too well known to require much illustration. The effect of the sudden introduction of a stranger into the lying-in room, or the sudden communication of bad news, in stopping for a time the contractions of the uterus, has been frequently noticed. Whilst the cheering influence of hope, confidence in attendants, and cheerful conversation, and the depressing influence of despair, want of confidence, sudden dislike to attendants, or melancholy conversation, are all well known to the practical accoucheur. To these may be added the emotion of the mother on hearing the child's cry, or at the sight of her infant, in producing the complete contractions of the uterus. There is, however, another class of emotions which have been generally, though I believe erroneously, attributed to the influence of the reflex action of the spinal cord. I allude to the influence which is produced on the contractions of the uterus, by suddenly plunging the hand into cold water, dashing cold water upon the face, taking a large draught of cold water, &c. In these cases the increased contractions of the uterus appear to depend on the influence produced on the system by the sudden application of the cold, and not, as is supposed, upon the reflex action of the cord, it being difficult to perceive through what media this latter influence can act.

(b) *Through the Spinal Cord—Reflex Action.*—The influence of reflex action of the spinal cord in increasing, and occasionally exciting the contractions of the uterus, has been abundantly recognised by most writers on the subject; and we shall see, when considering the pathology, that these reflex actions are the chief means by which the diseases of the uterus are made evident to the patient, and recognised by the practitioner. The contractions of the uterus are influenced through this means, by gently rubbing the abdominal surface at the commencement of a pain; by applying the hand, previously cooled by immersion in cold water, to the same part; by dashing cold water on the abdomen, or upper part of the thighs; by the application of warm flannels to the abdomen; by the alternate application of cold and warmth to the abdominal surface, when it has become accustomed to the continued action of ether, so as no longer to be excited by their single application; by the injection of cold or stimulating fluids into the rectum; or by the introduction of the finger of the accoucheur to the upper part of the vagina. When the finger passes to the uterus, it then becomes a local irritant, and the increased contractions are induced principally by this means, acting through the medium of ganglia of the sympathetic; yet there can be no doubt that some reflex influence is combined with that of the local irritation.

Combined Actions.—It not unfrequently happens that two of these modes of influencing the contractions of the uterus are in operation at the same time, and produce more effect than either singly applied. For example, *volition and local irritation* are combined in the instance already adduced, when the patient voluntarily closes the glottis, and contracts the abdominal muscles, by which means the uterus is subjected to local pressure from the surrounding viscera, and influenced by the same volition which closes the glottis and contracts the abdominal walls. It is a question, however, which I am not prepared to determine, whether reflex action is or is not added to this combined influence. That reflex action may be excited by the compression of the nerves of the abdominal muscles, in their contraction against the viscera, and so influence the uterus through the lumbar plexus, is possible; but I am not prepared to say how far the power of the will then in action may interfere with this reflex power.

Emotion and Reflex Action are combined when the child is applied to the nipple, and contractions of the uterus follow. Here, I have no doubt, the chief effect is produced by the emotion of seeing and feeling the child, together with the "singular feeling" which the child produces by sucking the nipple. At the same time, it is impossible to withhold the belief that some reflex action may also be induced through the inter-costal nerves acting along the splanchnic, and thence down the spermatic plexus to the upper third of the uterus. But as this reflex action can only excite one third of the organ, it is evident that the effect it will produce must be comparatively trifling. In the same manner I would explain the effect of a draught of cold water taken into the stomach, the chief effect being produced by the general emotion of the body, and a partial reflex action through the same media as in the last example.

Emotion and Local Irritation.—As in "taking a pain" during labour, after the patient has once felt the increased pain caused by the presence of the fingers on the upper part of the vagina. Here the emotion, caused by a remembrance of the increased pain induced, is added to the influence of the reflex action consequent upon the local irritation of the nerves at the upper part of the vagina.

The media through which the actions of the brain and spinal cord influence the contractions of the uterus are sufficiently evident on a reference to the distribution of the nerves of the uterus. There can be no doubt that it is chiefly through the branches of the lumbar plexus, which pass inwards as the white communicating cords become mingled with the fibres of the true sympathetic, and reach the uterus through the hypogastric plexus; and partly by the branches of the inter-costal nerves, transmitted to the

organ by the splanchnic nerves and spermatic plexus, as already explained. It has been stated, though I believe on insufficient grounds, that the endowment of these nerves from the cerebro-spinal system becomes affected by their association with the fibres of the sympathetic; and consequently that the influence of the brain and spinal cord cannot be so readily transmitted by them. To give the quotation at length: "No anatomist, so far as we are aware, has traced any branches of the sacral nerves into the uterus itself; although it is unquestionable that branches of several nerves of the cerebro-spinal system pass into the plexuses of the sympathetic, and are in this way distributed to the organ. It may be said that the distinction is unimportant; but we cannot regard it as being so, for it is obvious that the endowments of the cerebro-spinal fibres, which enter other parts of the sympathetic system, are greatly affected by their association with it, neither sensory impressions nor motor impulses being as readily conveyed by these fibres as they are by the ordinary cerebro-spinal nerves."—*British and Foreign Medical and Chirurgical Review*, p. 6.

An important difference is here drawn in the endowments of the nerves, and consequently in the influences which they transmit, between the branches of spinal nerves which pass directly from the sacral plexus to the uterus itself, and those which reach the organ through the medium of the sympathetic. I am, however, unable to perceive any foundation for this opinion. It is said that motor impulses are not so readily conveyed by the cerebro-spinal fibres which enter into the sympathetic system as they are by the ordinary cerebro-spinal nerves. Certainly we have not the same motor power over the organs supplied by the sympathetic system as we have over the voluntary muscles. But it is nowhere shown, that I am aware of, that this depends on an alteration of the endowments of the cerebro-spinal fibres, and not on the anatomical condition of the organs themselves. We can easily understand that the voluntary striated muscle would be much more obedient to the motor impulses from the brain than the inorganic non-striated muscular fibre, although the media by which this impulse was transmitted remained the same in both cases.

It is also stated, that the transmission of sensory impressions is interfered with by the presence of ganglia upon the nerves which transmit these impressions, assigning to the ganglia the office of "cutting off sensation." As, in the transmission of motor influences, it is nowhere shown, so far as I am aware, that this diminished sensory impression does not depend upon the anatomical condition of the organs which furnish this impression, and not upon the presence of the ganglia in the course of the nerves. We can readily believe it possible that the ultimate distribution of the cerebro-spinal filaments upon an organ, chiefly supplied by the sympathetic nervous system, may be different from the distribution which is followed in an organ immediately under the influence of the brain, and chiefly supplied by the cerebro-spinal fibres; and that this anatomical condition may influence the transmission of sensory impressions. It is certainly contrary to the view which assigns to the ganglia the office of "cutting off sensation," to find one of these ganglia always seated on the posterior or sensitive roots of the spinal nerves. In this situation, it in no way interferes with the "sensory impression" transmitted from all parts of the body. Why, then, should it be considered to do so when seated in the abdomen?

In considering this question, we ought not to overlook, that the amount of cerebro-spinal filaments distributed to an organ supplied by what is ordinarily called the sympathetic system, is considerably smaller than that which is furnished to an organ supplied by the ordinary cerebro-spinal nerves. And, as the degree of sensory impression transmitted from an organ, and the amount of motor influence which can be exerted over an organ, bears a close relation to the amount of cerebro-spinal filaments furnished to the part, so we have another reason for the fact under consideration, without attributing to the sympathetic ganglia the office of altering the endowments of the cerebro-spinal filaments with which they are commingled. During some of the diseases of the organs supplied by the sympathetic, or during the healthy actions of the uterus in parturition, the sensory impressions are transmitted with sufficient acuteness in the severe pains which are experienced. It cannot be considered that the ganglia exercise the office of "cutting off sensation" at these times; why, then, should it be considered that their office is altered during health?

But to peruse this subject further would lead to an examination of the comparative anatomy of the nervous system in the lower classes of animals, which forms no part of the present inquiry, but which I hope to take up on another opportunity.

To recapitulate what has been stated. The motor powers of the uterus consist solely of the peristaltic contractions of the organ, which are dependent for their full production upon the nerves and ganglia of the true sympathetic; yet these peristaltic contractions may be influenced by the brain, as in volition or emotion; by the spinal cord, as in reflex action; or by a varying combination of these influences. The media through which those influences act upon the uterus, being the branches of spinal nerves sent inwards to the viscera. This, however, introduces the question which has been deferred, viz., Are the contractions of the uterus dependent or not upon the cerebro-spinal system for their continuance?

9A, Langham-place.

[To be continued.]

CONTRIBUTIONS TO THE PATHOLOGY OF THE NERVOUS SYSTEM.

By NICHOLAS PARKER, M.B., M.D., M.R.C.S.,

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Disturbance of function does not of necessity involve *appreciable* alteration of structure. The vital endowments of a part may be disordered without any *discoverable* lesion of its material substratum. The nervous system bears out most fully the truth of this proposition. It is now generally admitted by those most conversant with the subject, that grave disorder of the functions of the nervous centres may exist during life, without any commensurate morbid alteration of structure being detected after death. As the foremost in importance and dignity among the nervous centres, the brain affords, perhaps, the most convincing illustration of the accuracy of this statement. A man is thrown violently from his horse; he is taken up senseless and motionless, his extremities become cold, his pulse is feeble and intermitting, and his respiration laborious and difficult. After continuing in this state for a variable period, he gradually returns to sense and motion; pulse and respiration improve, the surface of the body becomes once more of its natural warmth, there is a consciousness of pain, and questions are appropriately answered. The action of the senses may be still a little impaired, and the patient inattentive to slight external impressions; but by degrees he re-acquires the use and full enjoyment of all his faculties, becomes enabled to give a clear and connected account of his condition, and again obtains the faculty of moving his limbs in accordance with the dictates of volition. But sometimes, in lieu of recovering, he dies from the effects of the shock he has sustained. We carefully examine the body, more especially the brain-case and its contents, but cannot succeed in finding any alteration of structure. The matter is, therefore, supposed to be satisfactorily explained, and the cause of death to be sufficiently ascertained, when we have booked the case as one of "injury of the head, with concussion of the brain." Now, what do we mean by this term, "concussion of the brain"? Mr. Guthrie (a) says, "By the term 'concussion of the brain,' a certain indefinable something, or cause of evil, which cannot be demonstrated, is understood to have taken place, although the effect is often clearly proved by the almost instantaneous death of the individual, or by the succession of symptoms which quickly lead to his destruction." Other authors have thought that the operation of "this cause of evil" might be traced by effects other than the death of the individual, viz., by its producing a material alteration of structure in the brain. Dupuytren (b) says, "The brain may have less consistence, more or less disposition to diminish in size, and may be readily torn by the slightest effort." Littre, Sabatier, and O'Halloran, imagined that, in cases of death from concussion, the brain did not completely fill the cavity of the cranium. Mr. Guthrie places but little reliance upon these

(a) "Injuries of the Head."

(b) "Leçons Orales," p. 496, quoted by Mr. Guthrie in "Injuries of the Head."

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statements, viewing the diminution in the size of the brain as an accidental circumstance, "which may or may not be dependent on the shock which takes place, although it be followed by instant death;" and he adds, "I suspect that something has been overlooked in the explanation which I do not attempt to supply."

Now, notwithstanding that in cases of concussion *we cannot detect* the nature of the lesion, who can doubt but that the brain neurine has undergone *some alteration* which renders it incapable of performing its proper functions? But this alteration is, probably, one of molecular *arrangement* merely, the condition of the brain neurine, after concussion, resembling that of the particles of a magnetic steel bar which has been deprived of its magnetism by a blow. A moment before, and it was endowed with the faculty of evidencing a peculiar power, which enabled it to attract steel, to support heavy weights; and now it has been deprived of all these properties by some molecular alteration produced as the effect of the blow. In like manner, a moment before the concussion, the brain had exhibited the manifestation of thought and of sensation, as well as the power of originating and controlling motion, and by the effect of a blow all its functions have been at once arrested. A similar arrest of the actions of the brain may be produced by a number of most dissimilar agents,—by psychical as well as by physical causes—death resulting from powerful mental emotion, as well as from concussion, prussic acid, or chloroform. In these instances we know the operation of the cause by its effects, viz., a separation of the immaterial force from the material medium through which it was manifested, or a disturbance in their reciprocal relation. But we might as well expect to find an appreciable change in the molecules of the steel bar in the one case, as an alteration in the physical structure of the brain in the other. That there is some change of molecular arrangement may be highly probable; but, in both cases it eludes, and perhaps must ever elude, the most careful scrutiny.

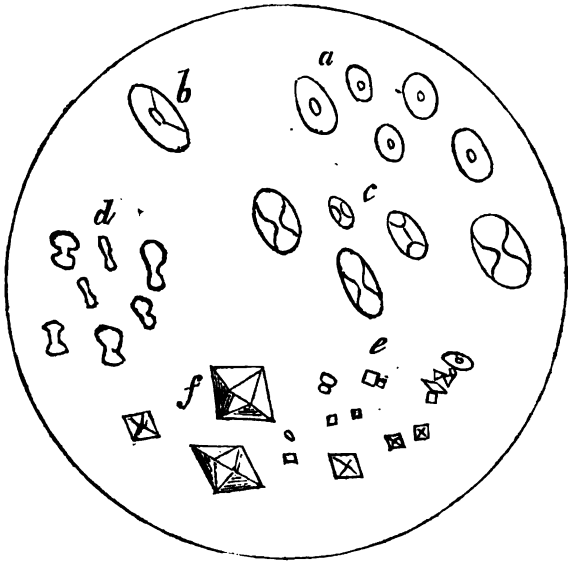
REMARKS ON THE DUMB-BELL CRYSTALS OF OXALATE OF LIME.

By HUGH M. BALFOUR, M.D.

Some doubt having been recently thrown by Dr. Frick(a) on the nature of the dumb-bell crystals occurring in the urine, which have hitherto been considered as oxalate of lime, the following remarks on the subject may not prove uninteresting.

During the period of nine months in which I acted as Clinical Clerk in the Royal Infirmary of Edinburgh I was in the daily habit of examining microscopically the urine of the patients, and paid considerable attention to the subject of oxalate of lime. That deposit, as was previously pointed out by Dr. Golding Bird, was found to be of very frequent occurrence, being common in cachectic patients, in those labouring under organic disease of the liver, &c., and in dyspepsia. The dumb-bell crystals were more frequent than I had been led to expect from the statements of various authors as to their extreme rarity, and were *invariably* associated with the octahedral forms. In one case which came under my observation out of the hospital, all the usual symptoms of oxaluria in a marked degree occurred in connexion with a copious deposition of these crystals in the urine, very slightly mixed with the octahedral variety. These facts seem to point out the identity of the two forms of crystals in a pathological and chemical point of view; but there is another circumstance which appears to me still more conclusive. In my own person I scarcely ever failed to produce the dumb-bell, as well as the octahedral form of crystals, by eating rhubarb, although no derangement of stomach or deposition of lithic acid in the urine took place. The following sketch was taken from a preparation made from one of these artificially produced specimens, and shows well the character of the deposit. It also exhibits a form, which I have in general found associated with the dumb-bell crystals, and which runs into the latter variety by almost imperceptible gradations.

Its appearance is oval, and somewhat similar to, though more regular than a nucleated cell (fig. *a*.) In others a slight fissure is seen proceeding from the central nucleus to the circumference (fig. *b*); and, in others, this line becomes more marked, so as to give the appearance of an hour-glass, surrounded by a case (fig. *c*.) At fig. *d*, the dumb-bells are shown in their complete form.



This figure represents oxalate of lime, magnified 500 diameters. At *a* is represented the oval form; *b c*, transitions from that to *d*, the dumb-bell form; *e f*, other forms. All taken from one preparation.

While on this subject, there is another circumstance worthy of observation. Drs. Prout(a) and Bird(b) as well as most others who have written on this subject, observe that oxalate of lime very rarely occurs as a distinct sediment. I have, however, satisfied myself by frequent observation, that in very many, nay, in the majority of cases, it does; and the appearance of the deposit is so characteristic, that I have frequently predicted with certainty, from this sediment alone, the existence of oxalate of lime in the urine. If the urine containing this salt be allowed to stand for some hours in a glass vessel, it will usually deposit a delicate looking, translucent, colourless sediment, bounded on the surface by a smooth, well marked, *wavy* line, and the appearance is so unlike any other urinary deposit, that when once seen, it cannot be mistaken.

Fort Pitt, Chatham.

(a) *American Journal of Medical Sciences.*

(a) Prout "On Stomach and Renal Diseases," p. 64.
(b) Bird "On Urinary Deposits," p. 168.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

By J. RUSSELL REYNOLDS, Esq., M.R.C.S.,
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CASE OF PROBABLE CARCINOMA VENTRICULI.

Frances S., aged 60, married, admitted under Dr. Walshe on May 3rd, a thin woman, with a peculiarly dejected and pinched expression of countenance; skin of a pale lemon or straw tint; complaining of great weakness, daily increasing emaciation, anorexia, abdominal pain, frequent vomiting, and dyspnœa, with palpitation of the heart. She has not been well for the last seventeen years, having never fully recovered her health after having had typhus fever. She ceased to menstruate six years ago, and from that time she has felt constant langour and increasing weakness, cephalalgia, and pain in the limbs. These feelings vary in intensity, but she has not observed any periodicity in their variation. About twelve months since, after feeling much more languid than usual for two or three days, she began to vomit. This did not occur after every meal, but she does not know that any one kind of food was its constant cause. Generally

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she felt pain in the epigastrium, and left hypochondrium, for two or three hours after taking food, and then vomited it very little changed in appearance. Sickness sometimes occurred in the night, sometimes in the day. From this time she became much thinner than she had been before, and completely lost her appetite and colour. Eight months ago, she felt "rolling pain in the stomach," (under the lower ribs on the left side, and extending thence across to the epigastrium and downwards.) This recurred every half hour for two or three days, and she compares it to "slight labour pains." With only two or three exceptions, she has not felt it since that time. About two months since she suffered intense pain in the back of the head, her skin became of a more yellow tint and extremely irritable, but there was no eruption. She had a very bitter taste in the mouth, her urine became dark-coloured, and fæces pale. Her breath was very short, and heart palpitations very distressing. These symptoms have continued and increased until the present time.

Skin is now moderately warm; she has occasionally bursts of perspiration, and heat. Tint is peculiar; it has a waxy appearance. Ankles puffy, appear œdematous, but do not pit upon pressure. Tongue rugous, granular-looking in front, clammy, rather broad, not furred. Lips pale; no aphthæ. No dysphagia; occasionally a "lump in the throat." Abdomen flaccid, flat, parturition-marks visible. Costal angles about equal. Liver dulness extends 7¾ inches from the level of the mammilla. No intumescence can be felt; no nodulations on the surface. Both recti muscles very irritable, right more than left. Any exertion or agitation causes great pain in epigastric and infra-mammary regions. She has not vomited since admission. Matters vomited are never black, nor of coffee-ground appearance. Occasionally the bowels are constipated for weeks together, and then attacks of diarrhœa follow. No hæmorrhoids. Nothing unusual in character or shape of fæces has been noticed. Leucorrhœa occasionally, but latterly discharge has been of a yellow tint. No hæmorrhage of any kind; no unusual fetor of any discharges. Micturition sometimes stops suddenly of late. Complains of irritation at the anus. Urine of orange-colour, acid reaction; 1·015 sp. gr. Fish diet, and beef-tea with gelatine.

℞. Argenti nitratis, gr. i.; extracti stramonii, gr. iii.; extracti lupuli, gr. xxiv. Misce.fiat massa, in pilulas duodecem div.; quarum habeat unam ter die.

May 5th.—(Examination continued.)—The apex of the heart beats faintly a little within the vertical level of the nipple. Dulness natural. At the base is a soft, prolonged, blowing, systolic murmur; there is also a diastolic murmur, sharper in quality. In pulmonary artery both sounds are murmurish. In aorta, first sound faint; second, not murmurish. Venous hum in neck. External jugular fills from below, and pulsates visibly. Radial pulse visible (90), very feeble, narrow, not jerking. Urine 30 oz. (in 24 hours), sp. gr. 1·015, acid, with a deposit of epithelium scales and mucus.

℞. Ferri citratis, gr. iii.; infusi gentianæ comp. ʒi. M. fiat haustus, ter die sumendus.

May 7th.—Left infra-clavicular region more prominent than right. Percussion painful; resistance and notable dulness well marked near the left sterno-clavicular articulation. Respiration coarse and jerking; more bronchial than on the right side. No rhonchus. Respiration in inferior part of left lung close in quality and harsh. It is generally weak, unless forced. Expiration much prolonged in both supra-spinatæ fossæ. She feels less languid to-day. Vomiting has not returned.

May 6th.—Much depressed; no change otherwise.

May 12.—Appetite improved; countenance more cheerful; urine 20 oz., sp. gr. 1·020, amber colour; dusky flocculent deposit; slight play of colours upon adding nitric acid gutt.

May 14.—Colour of skin certainly less yellow; no bitter taste in mouth; no nausea; tenderness in liver region and infra-clavicular continues; urine 20 oz., sp. gr. 1·015; play of colours continues; pulse as before.

May 15.—Langour great; appetite better.

Auge ferri citratis, dosem ad gr. iv.

May 18.—Feels languid as ever; sick, and at times very faint; cannot get warm; severe pain in epigastric region and cephalalgia; tension of right rectus abdominis muscle much more marked than left; no prominence distinctly visible or palpable in the region of the pylorus, but a suspicion of such when the recti muscles are sufficiently flaccid to make a tolerably minute examination; liver reaches three fingers' breadth below the false ribs.

She remained in the hospital for some days, without presenting any fresh signs or symptoms of importance, and left slightly relieved.

The following particulars of her history are of some importance (in a negative point of view principally) in the diagnosis and etiology of her disease:—

She was married when 18 years of age, and has had two children; the second was born four years after marriage. She has never been compelled to work hard, but has always been actively employed with household duties. Food, clothing, and rest, have always been sufficient. Her father died when she was quite young, cause not known. Her mother died from a "violent cold." She has one brother living, aged 70, in good health. She has had variola slightly, and pertussis; has suffered rheumatic pains occasionally; but has never had acute rheumatism.

Remarks.—The appearance of this woman was, at first sight, almost sufficient to establish the diagnosis with regard to the *nature* of her disease. The peculiar tint of skin, its waxy appearance, together with the puffy (not œdematous) condition of the ankles, and her anxious, pinched expression of countenance, could leave little doubt of the existence of the *cancerous* cachexia. These signs, when well marked, are considered absolutely peculiar to carcinoma. In some instances, a modification of the chlorotic tint may resemble that of carcinoma; but the age of this patient is not that in which chlorosis is seen; and her anxious countenance, pinched features, and other symptoms, will serve to exclude the idea.

She was of the *age* in which carcinomatous disease is known very frequently to become developed.

Some ambiguity has existed upon this question of age. By some it is supposed that there is a peculiar constitutional aptitude for the development of cancer at the "critical periods" of life, when the power of reproduction declines. John Hunter has said, "the cancerous age is from 40 to 60 in both sexes, though it may occur sooner or later." These statements would lead to the conclusion, that a woman having *passed* the age of from 45 to 55, is less likely to become the subject of cancerous disease, year by year, as she is further removed from that period of life; for it has been shown by Mr. Robertson, that in nearly 82 per cent. menstruation ceases between these two periods, and by far the larger number (55·6 per cent.) between the ages of 48 and 50. Now, it has been shown by Dr. Walshe, (who has pointed out the relation which exists between the number of persons living at each age, and the absolute mortality,) that the number of deaths from cancer steadily increases with each succeeding decade until the eightieth year; and this statement, taken in connexion with that of Leroy d'Etiolles, that "the mean duration of the life of persons (not operated upon) is five years for men and five years and six months for women," or with his own, that the mean duration of life is 39·4 months, would indicate that there is not any peculiar predisposition to the development of cancer at the climacteric period, but that the tendency is in direct proportion to the age of the individual. To return to the case, her having ceased to menstruate for *six* years is not an argument against the probability of cancerous development.

Again, she was of the *sex* in which carcinoma is the more common; the female population of this country is destroyed to about 2½ times as great an extent by this disease as the male. Little in the previous history of this woman throws light upon the case. Hereditary predisposition is apparently absent, and collateral relationship shows nothing. Her married condition and her husband still living is of no import in the diagnosis; for, although of the single ·07, of the married ·48, and of widows 1·32 per thousand die from carcinoma, yet these proportions are mainly influenced by the mean age of the different classes of women furnishing them. Alleged predisposing causes (beyond age and sex) do not appear to have been present to any marked extent. Of exciting causes we know little; predisposition is necessary, and seems to consist in a constitutional aptitude, the essence of which is beyond our grasp, and of which we know nothing until the local development, or cancerous cachexia is seen. Any local irritation may, when this condition of constitution exists, determine the site of development, but in the majority of cases no such irritation can be discovered.

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The loss of appetite, emaciation, weakness, change of colour and expression, with nausea and vomiting, are among the most prominent features of the cancerous cachexia. They are present under all conditions of localization. There were, in the fits of heat and perspiration, evidences of a low type of febrile action often met with. Her temper had become gloomy during the last twelve months; and during her stay in the hospital she often gave evidence of peculiar mental despondency, so common in carcinomatous disease. The bowels presented, in their irregularity of action, the characters commonly noticed upon the development of cancerous disease.

No tumour could be discovered upon the surface, and therefore internal organs must be looked to. She had never suffered any violent pain; but after exertion felt pain in the epigastrium; and several months before admission she had suffered pain in the region of the stomach, and was in the habit of vomiting her meals little or not at all changed. These symptoms point to the *stomach*. The recti muscles were found very irritable, and this confirmed the idea of some abdominal organ being implicated. The stomach is, with the exception of the uterus alone, the organ most frequently the seat of cancerous affections. Of 8289 deaths from carcinoma in Paris, 2303 are referred to the stomach. Of cases, however, of gastric cancer males are found to form the larger number. It is not constant nor even common for carcinoma of the stomach to be attended with violent pain; and, when it does occur, it is usually the combined result of the disease itself and the obstruction which is caused, by its mechanical influence upon the inlet or outlet, to the function of the organ. It is not at all probable that the gastric symptoms presented by this woman were due to mechanical obstruction. There was not distinct tenderness of the epigastrium as a constant phenomenon; but tenderness may be very slight, or even altogether absent in cases in which a tumour is distinctly palpable through the abdominal parietes. The abatement of some of her dyspeptic symptoms does not militate against this view, for it is very often observed. Positive certainty cannot be obtained, as no tumour was discoverable through the abdominal parietes, and there were none of the fetid eructations or coffee-ground vomitings, which mark this disease almost unmistakably. Other diseases of the stomach present somewhat similar symptoms, but may be distinguished. In *gastrodynia*, the pain is paroxysmal, and digestion, though painful, proceeds well. Here the pain was not sufficiently acute; digestion was impaired, and with it nutrition. The tongue here was rugose and granular, large, &c.,—another point of distinction from the variable, pale, and pitted tongue of gastrodynia, and the dry, red, smooth, contracted tongue of chronic gastritis.

If the stomach was the seat of the disease, what *part* of it was affected? This may be affirmed with some certainty when a tumour is perceptible, but it is very difficult, unless the symptoms are well marked, to ascertain it without. The guides to the diagnosis are found in the varied manner in which the function of the organ is perverted or arrested. Cancer is most common at the pylorus, next at the cardia, then at the greater curvature, and least at the lesser. The symptoms in this case were those of obstruction at the pylorus, viz., vomiting after two or three hours' undigested food. But the vomiting is obstinate when the pylorus is obstructed, and a tumour is generally discoverable, if the disease has proceeded so far as to cause vomiting by *mechanical* obstruction. There was no sign of the cardia being affected, as food was not vomited immediately, as it is in such cases, unless the œsophagus undergoes saccular dilatation; and there was no dysphagia. It is not possible to decide the point in this case.

Were any other organs affected? Those situated in the same cavity become most readily the seat of secondary development; and when the disease is primarily located in the stomach the liver is frequently affected.

In this case there was nothing to show that such implication had taken place; there was no nodulation of its surface perceptible. Its dulness, however, was much increased; there was some tenderness of its lower margin, and the right rectus muscle was extremely irritable. These things are frequently noticed in the earlier stages of disease of this organ; the diagnosis is often easy, but as often exceedingly difficult. Be this as it may, there were symptoms indicating that in some way the excretion of bile from the liver, or from the gall-bladder was temporarily obstructed (if her own report is to be trusted.) These are the high colour of the urine before admission—paleness of the fæces, increase of dyspeptic spmptoms, occipital cephalalgia (pointed out by Dr. Parkes as frequently connected with duodenal derangement,) irritation of skin, bitter taste in the mouth, and the disappearance of these symptoms during her residence in the hospital, together with some improvement in the colour of the skin. If the cancer of the stomach was of the colloid variety, as there are some reasons for supposing it was, this might be explained by the tendency which that variety has to infiltrate adjacent tissues; the infiltration proceeding in the lesser omentum may have caused this slight obstruction, as it has been frequently observed to do in cases of jaundice from cancerous disease not attended with ascites.

Some symptoms pointed to the *uterus* as the possible locality. It is rare for this organ and the stomach to be affected in the same individual, though the influence of sex may have some share in altering the statistical results on this part of the subject. The symptoms alluded to were the yellowish-white discharge, the occasional interference with micturition, and the irritation occasionally felt at the anus. There was, however, no pain, nor hæmorrhage; and the absence of these is unfavourable to the idea of uterine complication, though these symptoms may be absent from first to last.

In all probability, the intestines were unaffected; there were no symptoms or signs of their disease as distinct from that of the stomach.

The character of the respiratory sounds, with the signs from percussion of the chest, were those which are caused by cancerous infiltration of the lung, with some growth exerting pressure upon the surrounding structures. (Coarse, jerking respiration, bronchial, without rhonchus,—with dulness, bulging, resistance, &c.) The disease was little advanced; there was no hæmoptysis, expectoration, or even cough. The double murmur, with the heart-sounds, is not uncommon under such circumstances, and the general anæmic condition in which the patient was placed. There may have been regurgitation through the tricuspid orifice, from the absence of that constrictive power (?), which is thought by some to regulate the size of that orifice, rather than from any more important change in the structure of the valve.

Can the *species* of carcinoma be discovered? The stomach is the special seat of the colloid variety, and it may be from the tendency which this variety has to infiltrate adjoining tissues, that no tumour could be discovered. Local symptoms are more commonly absent in this form of gastric cancer than in any other. The affection of the lesser omentum I have alluded to. The question is a very doubtful one, and I refrain from venturing further upon it, as the symptoms were, many of them, equivocal.

Prognosis.—As much doubt rests upon the diagnosis, it is felt still more when considering this point. The organ affected is an important one; already the general health has suffered much; there is a probability that more than one organ is affected; these are grounds for fear, though carcinoma is not necessarily incurable at any stage of its development. Mr. Travers observes, that "not unfrequently a scirrhous tumour is inert from the period of its formation to the close of life." Sir Benjamin Brodie relates a case of scirrhous tumour lasting twenty-five years, and then death resulting from some other cause. These circumstances, together with the absence of hereditary predisposition, the considerable alleviation of many of the general symptoms, and the absence of any indication of important obstruction to the functions of the stomach, give the prognosis a favourable character rather than otherwise.

The treatment adopted was calculated to allay the irritability of the organ, and improve the general health. It was in some measure successful.

ST. THOMAS'S HOSPITAL.

By J. A. CHALDECOTT, Esq.
House Surgeon.

TRANSVERSE FRACTURE OF THE HUMERUS IN A HEALTHY SUBJECT FROM MUSCULAR CONTRACTION.

That the force of muscular contraction in violent efforts is sufficient to produce a fracture of the patella, or of the

olecranon, is frequently shown and universally acknowledged; that the os calcis may be broken by the same force, though of less frequent occurrence, is not denied; but that the long bones, the humerus, the bones of the fore-arm, the femur or the tibia, ever yield to such force, when in a healthy condition, is much doubted by most, and denied by many surgical authorities. Many instances have indeed been observed where these bones, when affected with cancerous or other disease, have yielded to muscular action; and a few, are related, in which the same force has fractured them when healthy. Some of these, to say the least of them, are apocryphal, and in nearly all of them there is no distinct evidence of the absence of disease; indeed, it is difficult to determine whether a bone is perfectly healthy or not. Dupuytren, in his "Leçons Orales," mentions an interesting case of fracture from muscular contraction, of what he thought a healthy humerus, afterwards found to be the seat of hydatid disease, which well illustrates this point. The following case shows that the humerus may be broken by muscular action, even when in a perfectly healthy state, for the evidence of there being no undue fragility of the bone is remarkably conclusive.

Henry Berry, aged 45, a well-made, healthy-looking, muscular man, five feet ten inches in height, fractured his right humerus while throwing a stone. He has had eighteen children, three of which are dead, from what cause cannot be ascertained; those alive are well-formed and healthy.

He states that he has always lived well but temperately, has always enjoyed excellent health, and has been a strong and active man; that in his youth he was celebrated for his prowess in throwing, and that although he had had many falls and other accidents, he has never before broken a bone; two years ago he dislocated his left shoulder, and since that he has been subject to rheumatism in the joint, though he had never previously suffered from that disease. He is of cheerful temperament, and although he has lately met with severe reverses, his health has remained good.

He has never suffered from syphilis, and neither he nor any of his relations have been the subjects of cancer or of scurvy.

The lungs are naturally resonant, heart sounds normal, digestive functions well performed, all the bones are of a natural shape and consistence and of average size.

Walking in a field at Peckham with a friend, and, talking about his former feats in throwing, he took up a stone, weighing about a quarter of a pound, to see what he could now do. While in the act, however, he felt a sudden crack in the arm, which fell powerless to his side, the lower part of it sticking out at an angle, so that he was obliged to use the other hand to bring it straight.

On examination, there was found to be a transverse fracture of the humerus, just below the insertion of the deltoid muscle. The crepitus and mobility of the fragments were distinctly felt. The arm was put up in the usual manner, and the man made an out-patient. A month after, the splints having been removed, the union was found to be perfect. The man recovered the perfect use of the limb.

PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

NORTH STAFFORDSHIRE INFIRMARY.

By GEORGE UTTERMARCK, Esq.

LITHOTOMY IN A CHILD.

George Lea, aged three years. Has suffered from calculus in the bladder for more than two years. His belly was tumid, and he had an unhealthy cachectic appearance; but after consultation, Mr. Ball operated in the usual way, great difficulty being experienced from the proximation of the rami of the ischia, they not being more than an inch apart. As I am not aware that the operation has ever been successfully performed upon so small a child, I annex the following dimensions:—Height, 26 inches; weight, 16¼ lbs.; between the superior spinous processes of the ilia, 5¼ inches. Round the belly at the umbilicus, 18½ inches. The stone was composed of lithic acid, with a coating of phosphates, and weighed two drachms.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening, January 25.—Medical Society of London. *Subject*:—Mr. R. Wade, "On the Treatment of Stricture of the Urethra." Eight o'Clock.

Guy's Hospital Physical Society. Eight o'Clock.

Tuesday, January 26.—Royal Medical and Chirurgical Society. Half-past Eight o'Clock.

Wednesday, January 29.—Society of Arts. Eight o'Clock.

Thursday, January 30.—South London Medical Society. Eight o'Clock.

King's College Medical Society. *Subject*:—Dr. J. T. Arlidge, "On Insanity." Half-past Seven o'Clock.

Royal Society. Half-past Eight o'Clock.

Friday, January 31.—Royal Institution. *Subject*:—Professor Brande "On Peat and its Products." Half-past Eight o'Clock.

Saturday, February 1.—Asiatic Society. Two o'Clock.

Medical Society of London. Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, JANUARY 25.

CORONERS' COURTS.

We recently intimated the probability of the Union Surgeons obtaining redress through the transference of the liability of their salaries from the Local Boards to the Consolidated Fund. Should Mr. D'Israeli's scheme receive favour in Parliament, it would involve also an important change in the mode of payment for Coroners' services, and thus we should see the first step towards a thorough reform in the constitution and conduct of Coroners' Courts. The evils incident to the Profession and the public through the irregular proceedings and the arbitrariness of these Courts, are unsuspected by all but those whose misfortune it is to make a personal acquaintance with their operation. It is at any time in the power of a perverse Coroner, or a garrulous witness, to damage the character of a medical practitioner, We remember once to have been in Court in anticipation of our opinion being required, when a case was heard wherein one medical man had demanded an inquest because another had stated that the patient would not have died if the plan of treatment recommended by him had been adopted. The Court was, on this occasion, converted into a forum for the display of the rhetorical talents of one gentleman, who expatiated for at least half an hour, much to the enlightenment, no doubt, of the lawyer, Coroner, and the somnolent jury, upon the physiological mysteries of growth and inflammation, during which he proved, entirely to his own satisfaction, that no patient who was supplied *quâque horâ* with a quart of brandy, until re-action was established, would die of that fatal malady—cholera. Whatever truth there might be in the opinion, which at best is an Hibernicism, the silliness of the argumentation employed was inexpressibly contemptible to a medical man, who, if acting as Coroner, would never have suffered such a tissue of hypotheses to have been foisted upon a jury, at the risk of injuring irremediably the character of a rival practitioner, who unfortunately was not, in this instance, gifted with equal lubricity of the organs of articulation. It is absolutely necessary, in order to discriminate the real value of medical evidence, that Coroners should have had a medical education. Whenever, therefore, a vacancy occurs, medical men should contest the election. The law, moreover, should expressly declare that none but medical men should be eligible to the office.

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There are other evils, also, of great importance, which present many difficulties in the way of their reform. The mode of procuring medical evidence is now most imperfect; and the evidence itself is often very unsatisfactory. There can be no doubt that homicides sometimes remain concealed in consequence of the inability of medical men to make a chemical analysis of the contents of the stomach; and either suspicion is not awakened, or matters are hastily hushed up to avoid inconvenient publicity. The latter instances we trust are few; but when we remember the imputed timidity of medical men in relation to courts of law, and their proverbial benevolence toward guilt or suffering, we apprehend that such cases sometimes occur. A competent analytical chemist should be appointed, therefore, to each Coroner's district, and paid by salary according to a fixed scale for his duties. It would be difficult in most districts to associate in the same person capability for conducting delicate investigations in analytical chemistry and for unraveling also the minute phenomena of diseased structure, For the latter duties, we believe that medical men are generally competent; and in all cases in which a medical coroner should consider their evidence clear and conclusive, it should be relied on, and the surgeon in attendance at the time of death be entitled to the usual fee. We would recommend that the aid of another officer should be sought in *post-mortem* cases, only on doubtful questions,—otherwise it would be an injustice to the medical man, and no advantage to the public. Analytical chemistry is, however, a science in itself, and requires a distinct officer for an accurate display of the evidence it is qualified to afford. We do not mean to disparage the science of medical men. Our own pages are evidence of their sound and varied attainments; and we have no doubt that there are many medical practitioners throughout the country, who are competent to perform the most difficult chemical analyses; but we still maintain that, for better security to the public, a rule should be enforced of submitting all suspected liquids to a professed analytical chemist for examination. The salary of this officer, as well as that of the Coroner, should be paid out of the Consolidated Fund. The practice of getting up the evidence through the instrumentality of a parish beadle, and entrusting to this functionary's foresight and perseverance the legal conduct of the case, is obviously bad, and unsuited to the grave importance of many inquiries that are conducted in this Court. It imperatively demands amendment.

Coroners have recently, in particular instances, arbitrarily ordered that the surgeon in attendance upon the patient at the time of death should not be present at the autopsy. This is a grievous wrong and tyranny, and assumes guilt before evidence, on the part of the medical attendant—a custom diametrically opposed to the spirit of our laws and the practice of our courts. It is but fair and just that the medical attendant, if he wish it, should be present at all examinations, as medicine is not so absolute a science that the inferences of one man can be implicitly depended on. Every available fact is sometimes necessary to enable a witness to give satisfactory evidence upon questions of pathology and therapeutics, and every opportunity should be given to the medical practitioner for the formation of a correct opinion; as in doubtful cases he holds the issues of life and death in his hands. Other peculiarities and defects of the Coroner's Court we shall refer to on another occasion.

THE ADMIRALTY CIRCULAR.

The following Circular from the Admiralty has been sent to us for publication. It is with great regret that we insert it; and we do so, partly because we trust that the individuals named in it may be able to offer some explanation tending to remove from them, if it be possible, the stigma it throws upon them of having acted in a manner inconsistent with the honour of gentlemen, and derogatory both to the character of the Profession they belonged to, and of the service they had entered.

The Cholera in Jamaica.—(Circular.)—Admiralty, Jan. 9, 1851.—Sir,—Dr. William C. Tucker, and Mr. William Bainbridge, assistant-surgeons in the Royal Navy, having resigned their commissions on being called upon to proceed to Jamaica to aid in the treatment of cholera raging in that island, my Lords, in accepting the same, feel compelled to record their disappointment at conduct so unbecoming and so unofficer-like on the part of these gentlemen. My Lords have the satisfaction of feeling, that, with very rare exceptions, the medical officers of the Navy have shown a laudable zeal and forwardness in the exercise of their important duties; and they therefore regret that, at a time when the members of the Medical Profession generally have been distinguished for their devotion to the cause of humanity, a disposition to abandon their duties at a period of distress should have manifested itself in any officer of the naval medical service.—I am, Sir,

Your most obedient humble Servant, W. A. B. Hamilton.

Messrs. Tucker and Bainbridge have, it thus appears, been guilty of an offence of the gravest nature. They are accused of a treble dishonour: — guilty not only of inhumanity in refusing the aid of their medical knowledge, but of cowardice in shrinking from a field of peril, and of disobedience in refusing compliance with the orders of a service whose first law is, that individual will, shall disappear before the demands and exigencies of public duty. Such conduct is, we are happy to say, almost unparalleled among us. It is our boast, that medical men have almost invariably shown the most extraordinary fortitude and courage in facing and contending with dangers and difficulties, by the side of which the perils of the battle-field or the tempest are as trifles. The Medical Officers of the Navy have been ever pre-eminently distinguished in the exhibition of this courage and devotion, which seem to be inherent in the Profession at large.

We have spoken of a possible palliation or explanation of the conduct of these two individuals. But, as we reflect upon it, we almost despair of such being possible. It is, indeed, conceivable, that Messrs. Tucker and Bainbridge may have believed that they were wrongly selected for this duty; that others should have been first despatched, according to the common rules of the service. They may also have reflected, that the Admiralty have not shown themselves very ready to recompense duties of this kind; and are too much in the custom of slurring over the services of their medical corps, without a generous approval, or even a just recognition. It is not unlikely that these gentlemen may allege, that they were already disgusted with the severities and degradations to which they had been exposed in the Naval Service; and were unwilling to continue longer to be subjected to those regulations which demand great performances, but provide for them no adequate rewards.

Be this as it may, we cannot excuse anything which looks like shrinking from a dangerous duty. If a man enters a public service, he must abide by its laws. A soldier or a sailor knows no other motive to action than the will of his superior. He obeys orders without remonstrance, or, if he objects, it is in the spirit of the old army rule, "Obey first, and question afterwards." Whatever may be the danger or the hardships he is called upon to encounter, no man in justice to his own honour can draw back. And in the present case it so happens, that the duty to which Messrs. Tucker and Bainbridge were commanded did not present any

extraordinary danger, or call for the exercise of any uncommon spirit.

While on the face of the case we feel compelled to condemn these gentlemen in the strongest terms, we cannot entirely approve of the Circular of the Admiralty. As far, indeed, as the two officers are individually concerned, we would have approved even a severer censure; and regret that the Admiralty did not at once *dismiss* them from the service, in place of allowing them to *resign*; and, in this regret, we know that we are joined by the highest and most distinguished officers of the Naval Medical corps. But such a *General Circular* as this is only justifiable when the individuals are not only to be punished, but when it is necessary to give a lesson to their brethren in the service. If the Naval Medical Service were deficient in spirit, or if resignations when danger drew nigh were common, then it would be the duty of the Admiralty not only to make a public example of notorious delinquents, but also to hold up to others that which any backwardness in duty would justly draw upon them. But our brethren of the Navy are not thus backward, and the Admiralty should be most cautious not in any way to reflect on the characters of those who have served them, faithfully and boldly, in many of the most trying situations in which men can be placed.

THE *PROVINCIAL MEDICAL AND SURGICAL JOURNAL.*

We have on various occasions advised the conductors of the *Provincial Medical and Surgical Journal* to abstain from political discussion, if they desired to maintain harmony among the members, and to uphold the more important interests of the Society of which the *Journal* is the avowed organ. We foresaw that if political topics should become an engrossing theme, the Society would, in consequence of its peculiar composite character, be shivered by internal dissensions.

By pursuing the course they had commenced, the Editors would find it impossible to maintain that independent position of which they at one time boasted; for politics cannot be handled without exhibiting sympathies which conflict with hostile prejudices and opinions. In the high and serene atmosphere of philosophic contemplation, political disputations perish for lack of sustenance; and in the lower strata, agitated by the breath of human passions and worldly interests, no course can be safe that is not followed under the direction of a strong will to a declared object. The *Provincial Journal* attempted the latter *rôle*, and it has failed; not because the principle was unsound, but because the elements from which the *Journal* derived its power were in themselves conflicting. The Editors are not independent, or, to be independent, they must be neutral.

They have at last discovered their true relation to their readers, and have determined henceforth "to avoid as much as possible the discussion of any irritating or political subjects." The meeting to be held at Brighton will be called upon to approve or reject this policy; and when we remember that the movement against the management proceeded from the South-Eastern counties, we cannot doubt what will be the decision of that meeting. The Editors wisely hold out the olive branch to propitiate the recalcitrant members of this branch.

We are of opinion, that the Central Council, under whose direction the Editors are doubtless acting, have come to a prudent resolution; and that, if they adhere to it with good faith, they will increase the influence of the Society, and extend its usefulness. We have never desired to see this Society weakened or dissolved, for we believe that it has done much good, and is a bond of amity between the discordant sections of the Profession; but, in order that it might fulfil its original intentions, and its more important ends, we have always desired that it should refrain from political controversy. Let it show abstinence on this point, and it is our wish that it may go on and prosper.

The suppression of political discussion is, however, considered by the Editors as equivalent to a closing of the *Journal* in its present form; and they are right. The interest of a weekly periodical cannot be maintained without reference to public topics. As they have, therefore, prudently, though tardily, adopted our reiterated counsel on one point, we would venture to advise them on another; and, holding in view the local relations of the Society, and the diversified opportunities and varied capabilities of its members, we would suggest, that the *Journal* would prove highly useful if it were converted into a monthly or quarterly repertory of science, in which might be comprised all new facts in inductive or applied science, and topographical dissertations relating to the products, climate, and sanitary statistics of different districts, which the members might be induced to communicate. By limiting the objects of the *Journal* to such inquiries, and concentrating upon them the energies of the Direction, the Society will give much encouragement to scientific researches, and tend, in a high degree, to advance the philosophic character, and promote the permanent interests of the Profession.

NUMERICAL ANALYSIS OF THE MEDICAL PROFESSION.

We have been favoured by Dr. Letheby, of the London Hospital, with the following Analytical Survey of the Qualifications, Honorary Distinctions, and Literary Labours of the Medical Faculty now resident in London. It has been compiled with great care and industry by that gentleman, from the "London and Provincial Medical Directory," for 1851:—

1. NUMBER OF MEDICAL PRACTITIONERS IN LONDON, AND NATURE OF THEIR PRACTICE.

2574 *Medical men are practising at the present time in London.* Of these, 2237 are engaged in General Practice; 187 as Pure Surgeons; 150 as Physicians; and 52 as Homœopathists.

2. NATURE OF THEIR QUALIFICATIONS.

(a) 1816 *are Members of the Royal College of Surgeons of London.* Of these 125 are Honorary Fellows; 62 are Fellows by Examination; 391 are Members without another qualification; 1121 are Members of the Hall and College; and 117 are possessed of a Foreign or Scotch Degree, in addition to their College diploma.

(b) 1371 *are Licentiates of the Apothecaries Company.* Of these 221 are Members of the Hall alone, or, in other words, have no other qualification; 1121 are members of the College as well; and 29 have some Foreign Degree, in addition to their Hall license.

(c) 597 *possess University Degrees.* Of these 335 have Scotch Degrees, (viz., 184 Edinburgh, 72 St. Andrews, 42 Aberdeen, and 37 Glasgow;) 143 have English Degrees, (viz., 79 London, 41 Cambridge, and 23 Oxford;) 107 have Foreign Degrees, (viz., 22 Geissen, 14 Erlangen, 15 Paris, 9 Heidelberg, 6 American, 5 Pisa, 5 Berlin, 4 Pavia, 3 Jena, 3 Tubingen, 3 Leyden, 2 Gottingen, 2 Würtzburg, 1 Kiel, 1 Munich, 1 Erfurt, 1 Vienna, 1 Lisbon, 1 Leipsic, 1 Naples, 1 Catania, 1 Rome, 1 Bologna, 1 Coimbra, 1 Grenoble, 1 Peru, 1 Frankfort;) and 11 have Dublin Degrees.

(d) 200 *are Members of the Royal College of Physicians.* Of these 90 are Fellows, 103 Licentiates, and 7 Extra-Licentiates. Of the 200, 41 do not possess any University Degree whatever.

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(e) *All are without any Qualification.* Of these, 48 were in practice before the year 1815.

3. HOSPITAL AND DISPENSARY MEDICAL OFFICERS.

452 are attached to institutions for the relief of disease. Of these 85 are Hospital Physicians, and 57 Hospital Surgeons; 65 are Dispensary or Infirmary Physicians, and 148 are Surgeons to like Institutions; 97 are the Medical Officers of Unions, Parishes, Asylums, Prisons, Police Divisions, or are Resident Officers in Hospitals.

4. HONORARY DISTINCTIONS.

Nearly all the members of the Medical Profession are Fellows of one or more learned Societies; but, as this fact has been recorded with great irregularity, it has been found difficult to give a correct statement of the number so distinguished. It may, however, be remarked that there are 4 Baronets in the Profession, 8 Knights, and 48 Fellows of the Royal Society.

5. LITERARY LABOURS.

646 are Authors. Of these 312 have written books or pamphlets, and 334 have contributed to the Medical Journals.

From this Analysis we find the following to be the numerical relation of the Profession to the population of London:—

If we regard the Metropolis as containing two and a quarter million of souls, (a number which is in all probability very close to the truth,) then it is evident that there are about 11 General Practitioners to every 10,000 of the inhabitants; 7 Pure Surgeons to every 100,000; and rather more than 6 Physicians to the same number; while each Homœopathist has a gross number of 43,270 upon whom he may practise, without interfering with the duties or emoluments of his colleagues.

Dr. Letheby proposes to take a similar survey of the Provincial Practitioners.

THE LATE MR. LISTON.

Her Majesty has been pleased to grant a pension of 100*l.* a year to the widow of the late Robert Liston. The annuity, it is true, is a small one; but when we consider how much the Civil List is burthened by the claims of persons who never in their time did service to the State, the smallest donation, we suppose, must be thankfully received. The widow of Dieffenbach enjoys, from the King of Prussia, a pension of 400*l.* a year; but they manage these things better abroad. There can be no doubt that Robert Liston was one of the most skilful operative surgeons ever known in this country; and long before his premature decease he had achieved a European reputation. That the widow of so illustrious a man should be awarded only a pittance of 100*l.* a year, is somewhat melancholy; but our Government has not yet learned, that in doing honour to men of science they are doing honour to themselves. We think Her Majesty ought to have been advised to grant this lady a higher pension; but still we are gratified to find that the Government has in any way recognised the principle of awarding a pension to the widow and orphans of men who have distinguished themselves in our Profession.

IRISH MEDICAL CHARITIES BILL.

We have not lost sight of this very important subject. We shall give it our immediate and most anxious consideration. We propose to describe the old and present system of Irish Dispensaries, and examine the proposed Health Commission, and the Poor-law Medical Relief. Neither will the subject of the "Qualifications" and the "Apothecaries" escape our notice.

REVIEW.

Agricultural Physiology, Animal and Vegetable, for the Use of Practical Agriculturists. By T. Lindley Kemp, M.D., 12mo. Edinburgh: 1850.

The physiology of agriculture, under one aspect, is at the root of physiology at large. It is through it alone that men can reach a rational explanation of the great fact which the ancient poet expresses in these lines:—

> "Sic modo quæ fuerat rudis et sine imagine tellus
> Induit ignotas hominum conversa figuras."

There is a continual circulation of portions of the envelope of our planet through the three kingdoms of nature. The animal kingdom is unceasingly converting the organic matter of its own substance into mineral matter,—witness the constant formation of the mineral body, carbonic acid, in the process of respiration, by the combination of the oxygen of the air with the carbon of the organic constituents of the living system. On a very moderate calculation, every living animal, by the process of respiration alone, disorganizes annually its own weight of the carbon of its organic compounds. This great waste of organic matter in the animal kingdom is supplied by the vegetable kingdom, on the organic matter of which the animal kingdom is exclusively dependent for its support. The vegetable kingdom, in turn, is dependent on the mineral kingdom. The substance of vegetables is derived from the mineral kingdom, or plants metamorphose certain portions of the envelope of our planet into organic substance. The immediate sources of the organic matter of plants are the soil of the earth, the air, and water; the two latter of which are unequivocally mineral bodies. It is still a subject of dispute, whether the whole of the substances existing in the soil, which act as aliments to plants are in the mineral state, or whether these are at least partly in the organic state. According to Liebig's view, all the aliments of plants are in the mineral state; but it would be premature to adopt this opinion, without qualification, before some of the difficulties which attend it are removed. The older opinion, however, that the food of plants is solely or principally of an organic kind, is wholly untenable; and the only idea that can be opposed to Liebig's is, that, though plants convert mineral matter into their own substance, and that this is the principal source of their nutrition, yet, that certain azotised substances formed in the soil and retaining their organic character are indispensable to the process of vegetable nutrition. The difference between these two views is very slight; for if such organic compounds existing in the soil do aid in the nutrition of plants, it can hardly be otherwise than as yeast contributes to fermentation. Thus it may be regarded as an established fact, that the substance of vegetables is derived from mineral matter. The opposing views of Liebig and Mülder exhibit this great truth nearly in the same terms. Whatever elementary substance is found in a plant must have been derived from the soil, from the rains which refresh it, or from the surrounding air. Plants have no creative power as respects their constituent elements. This was taught by De Saussure, at the very commencement of the present century, but was absurdly controverted on the faith of inexact experiments by Schroeder and Branconnot, and their views took possession of the minds of naturalists for a series of years. If philosophers were so slow to receive this truth, it is not surprising that it proves a stumbling-block to the farmer. The practical value of this truth Dr. Kemp illustrates in the following passage:—

"We shall soon have to mention more at length the fact, that elements composing the food of plants must be in such a state of combination as to be soluble in water. Now it rarely happens that all the soluble parts of a soil are extracted from it; but if all of any single element which a crop contains be extracted, its fertility is just as much destroyed as if the whole were. For instance, if the reader will look back to the table of the inorganic constituents of the common crops, he will see, that turnips contain a tolerable quantity of phosphoric acid and of lime. These two substances are in these plants united and form phosphate of lime. Now, supposing a soil to contain every other constituent in abundance that is found in turnips, but to be deficient in phosphate of lime, it is in vain to sow turnips. Three courses are open to the possessor of such land who is determined to sow turnips upon it. He may leave the land alone, and in course of years, by means of springs, worms, &c., the land may obtain phosphate of lime; or he may take bone-dust, which consists principally of phosphate of lime,

and mix it with the soil. By so doing he renders, at no great expense, the soil able to produce turnips; or he may—and this is what is generally done—select the manure he most fancies and add it to the soil. As most manures contain phosphate of lime, very likely his proceedings will be attended with success; but, at the same time, he will have added half a dozen substances, all of value, of which his land stood in no need, and which will be evaporated or washed away before after-crops can consume them. This is but one instance of the importance of having an exact acquaintance with the constituents of each particular soil, each particular crop, and each particular manure."

The phosphates which exist so abundantly in the animal kingdom, are ultimately derived from no other source but the rocks which form the crust of the earth. As these rocks crumble down and become highly comminuted, the contained phosphates pass into the soil, from the soil into plants, and from plants they pass as constituents of vegetable food into animals, from the excretions of which they pass again into the soil. In like manner the potassa, which exists so largely in the vegetable kingdom, has no other ultimate source but the rocks forming the crust of the earth, and only passes into the soil preparatory to entering the vegetable kingdom, as these become minutely comminuted. The nitrogen which makes so essential a constituent of the animal kingdom, and which is contained in all the essentially nutritive articles of vegetable food, is also ultimately drawn from the mineral kingdom. The compounds of nitrogen deemed of most importance in the soil, are ammoniacal salts and nitrates. Both ammoniacal salts and nitrates are unquestionably, to a certain extent, original constituents of the crust of the earth, while both are continually reproduced by the decay of animal matter. But, notwithstanding the doubts entertained by Liebig, as to the production of ammonia from the nitrogen of the atmosphere, it seems certain that the nitrogen of the atmosphere is capable, under certain conditions, of becoming the essential source of ammonia, as well as of the nitrates. The conditions under which ammonia and the nitrates could be made to form abundantly from the nitrogen of the atmosphere, give rise to one of the most important problems ever proposed in the physiology of agriculture, and therefore in physiology at large. The successful solution of this problem would be tantamount to showing how to add immeasurably to the means of human subsistence. The large supply of nitrate of potass from the East Indies, and of nitrate of soda from South America, has impaired the zeal with which chemists formerly strove to resolve this problem, as far as regarded nitrate of potass, the demand for which, in the manufacture of gunpowder, made its solution an object of interest to every Government of Europe. Before the first French Revolution the Master of the Ordnance of the kingdom presided over this inquiry, and the documents on the subject published by his authority extend to volumes. In those times the manufacture of nitre, as he best could, was compulsory on the farmer in most countries of Europe, a certain annual amount proportioned to the land he occupied being exacted as a tax. It is no longer to minister to the energies of war that we seek to learn how to form nitre artificially. It is to minister to the wants and comforts of mankind that we desire to discover plentiful and accessible sources of potassa, phosphates, ammonia, and nitrates. These constitute the most precious kinds of dust which enter into the composition of plants and animals.

A better understanding as regards the formation of ammonia and the nitrates might enable us to explain some of the practical difficulties which beset the theory of agriculture. If a farmer buys no manure, but year after year sells the crops raised on his farm, we readily understand why the soil may, after a time, become less fertile; and if he buys manure freely, we are at no loss to explain why his land may not only, after a series of years, have suffered no exhaustion, but have even become more fertile; but there is a method of farming extensively pursued at present, which can hardly be explained on any principles hitherto generally acknowledged in it; the farmer, instead of buying manure, buys cattle to make manure; to feed these he sows turnips, and to secure a crop of turnips he must use manure: the question is, how this method can possibly turn to profit. It is denied universally, that the price at which the cattle are sold, as compared with that at which they are bought, can afford the farmer a profit merely as a feeder of cattle. Why, then, is this case different from that in which the farmer, without buying manure, goes on selling crop after crop from his fields, and thereby impoverishing them. The cattle take away more than they bring, and, during all the time they are kept, they must, like animals in general, destroy organic matter instead of producing such matter. If it be taken for granted, that this mode of farming is nevertheless advantageous, the explanation must be sought for in the effect of manure to add spontaneously to itself from the atmosphere, in accordance with the two following propositions, which have not yet obtained from chemists the attention which they deserve:—1. That ammonia is produced in the soil during the decomposition of parts of plants containing no nitrogen, the nitrogen being derived from the air (Berzelius.) 2. That in a decomposing mass of animal matter, the nitrates first formed from the nitrogen of the animal matter, induce catalytically the production of nitrates from the nitrogen of the air.

We can recommend Dr. Kemp's work as an excellent compendium of the principles of physiology applicable to agriculture. It is written in a plain and perspicuous style, and the chief difficulties are illustrated by well-executed wood-cuts. It is thus adapted for the use of the practical agriculturist; but it is not the less worthy of the attention of such of our medical brethren as take an interest in the whole range of physiology.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

ARTICULAR RHEUMATISM.

Professor Andral relates a rare case of articular rheumatism, which terminated fatally, without any complication, on the ninth day.

The patient, a woman 67 years of age, was admitted into La Charité with pneumonia, from which she soon recovered under the use of tartar emetic. During her convalescence she was attacked by acute rheumatism of both shoulder-joints, apparently from exposure to a current of air. On examination, no complication of any kind could be discovered; but the febrile symptoms were extremely intense. Some blood was drawn from the arm. On the following day, the patient was greatly reduced in strength, and the repetition of blood-letting inadmissible. Sulphate of quinine was therefore given for a few days, in the dose of 12 grains every twenty-four hours.

In spite of this treatment, and contrary to the ordinary law of articular rheumatism, the disease continued to progress, and ended fatally on the ninth day, without any complication, without any abnormal *bruit* of the heart, without any extension of the rheumatic complaint to other joints.

On examination, the cause of death was sought for in vain in the important organs. All the viscera were healthy; the blood contained in the heart and vessels was free from alteration; no trace of phlebitis. Both articulations of the shoulder-joint were evidently inflamed and filled with pus. Professor Andral thinks that the weakened condition of the patient, convalescent from an attack of pneumonia, accounts for the fatal termination of the malady. His chief object in publishing the case has been to furnish a striking example of the changes which take place in acute articular rheumatism. These pathological alterations were intense hyperæmia of the synovial membranes, with abundant secretion of pus.—*Bulletin de l'Académie.*

CHLORIDE OF SODIUM IN ULCERATIONS OF THE CORNEA.

Ulcerations of the cornea may be distinguished, relatively to prognosis, into two species—the transparent and the opaque. The former are, in general, easily cured; the latter often give rise to perforation of the cornea; yet these are seldom painful, while transparent ulcerations are almost invariably accompanied by great intolerance of light. M. Tavignot speaks highly of chloride of sodium in cases of ulcerated cornea. He employs it in the form of eye-drops, or collyrium,—four to ten scruples of the chloride in an ounce of water, to be dropped between the eye-lids thrice a day. The usual general treatment is, of course, not to be neglected. In cases of transparent ulceration, the first effect of the chloride, after thirty-six to forty-eight hours, is a notable diminution, or even complete removal, of the photophobia. This effect is nearly constant, and takes place

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without any apparent change in the tissues, arising probably from modified vitality. The ulcer now ceases to spread, and in fifteen days or a month heals up. This rapid cicatrization, when applied to opaque ulcers, is attended with the great advantage of preventing the formation of spots on the cornea.—*Journal des Connais. Med. Chir.*

STAPHYLORAPHY.

Professor Sedillot, of Strasbourg, has recently performed another operation for cleft palate, under circumstances which, according to the Professor, would have rendered a cure impossible by any other method than the one he has proposed.

The patient, in this case, was afflicted with accidental perforation of the *velum palati*, presenting a hole fully as large as a franc-piece. The uvula adhered on either side by a mere thread of muscle and membranous tissue.

After various unsuccessful attempts, M. Sedillot resolved on having recourse to his own method. The uvula was therefore removed, and the perforation converted into a triangular wound, whose sides were so far separated that it seemed doubtful if they could be brought together by any process. The pillars of the soft palate were first separated from the tongue and walls of the pharynx. A vertical incision next divided the whole thickness of the velum near the junction of the palatine bone and the pterygoid process; and after refreshing the edges of the triangular wound, it was possible to bring its edges together with two points of suture. Still the tension was so great, that neither the common knot nor the surgeon's knot was sufficient to preserve the parts in contact; whereon Mr. Fergusson's knot was employed, and answered perfectly well. The ligatures remained for three days without producing much ulceration; but it was thought prudent to apply a third one. On the 6th day, the two first ligatures were removed, and the third one on the 7th day. Adhesion had now taken place in a solid manner. The patient's voice was at first nasal; but this soon disappeared, and a perfect cure was obtained in little more than three weeks.—*Bulletin de l'Institut.*

TUBERCLE IN THE PROSTATE GLAND.

M. Vidal (of Cassis) has lately reported a case of this rare disease. In a man aged 50, in many of whose organs (lungs, kidneys, &c.) tubercles existed, the two lateral lobes of the prostate were found distended with tuberculous masses. There had been no impediment in micturition; the only symptom was a slight cystitis. Apropos of tubercles in the testicles, M. Vidal has made a curious observation, which, if confirmed, will be of interest. In every case he has had in which there has been tubercle of *one* testicle, there has been general tuberculosis; but when the two testicles have been affected, the disease has seemed localised in those parts. —*L'Un. Méd.*

PARALYSIS OF THE BLADDER CURED BY ELECTRICITY.

The effect of electricity in stimulating to action the nerves, and thus removing many forms of paralysis, has been long established. No medical man, indeed, presumes to throw a doubt upon this property of the electric fluid; yet how seldom do we find practitioners having recourse to an agent, which cannot be replaced by any substance in the whole range of the materia medica? Fashion, it must be confessed, governs medicine as well as other matters; and electricity is not yet the *vogue*. The following case is well calculated to illustrate the surprising benefit sometimes produced by this universal agent:—

"A man, 67 years of age, had laboured under paralysis of the bladder for eight days. The only assignable cause was drinking to excess. The usual means of treatment had been employed without success, and the patient began to complain of rigors, the urine becoming ammoniacal. More active remedies were now used, and continued for seven weeks, but with equal want of success. M. Michon, therefore, resolved on trying electricity. A silver catheter was introduced into the bladder, and another catheter into the rectum, the point being directed against the recto-vesical septum. The bladder was emptied, and each of the catheters placed in communication with one of M. Breton's electrical machines, which acted for two or three minutes. The patient merely felt a slight pricking. The operation was repeated next day, and again on the day following. On the night of this third day the patient felt a desire to make water, and was able to empty his bladder without any assistance. Since then the cure has been perfect. The ammoniacal character of the urine disappeared rapidly."

In several other cases treated by M. Michon and by M. Monod of the *Maison de Santé*, electricity has been equally successful in curing paralysis of the bladder. M. Michon properly insists on the propriety of applying the point of the catheter to different parts of the bladder while the electrical machine is at work.—*Bulletin de Thérap.*

LIPOMA IN THE ABDOMINAL CAVITY.

An example of this very rare disease recently occurred at St. Louis, in the wards of M. Nelâton. The patient, a woman 47 years of age, had been admitted for cancer of the uterus, but was suddenly cut off by peritonitis. On examining the body a large tumour, weighing nearly a pound, was found in the left iliac fossa. It had been developed underneath the fibrous capsule of the kidney, and examination with the microscope showed that it was entirely composed of adipose tissue, without any trace of carcinomatous structure.

Lipoma of the abdominal cavity is hardly mentioned by authors, and very few cases are on record. M. Lebert has observed a small one attached to the peritoneum, in a female aged 60, who died of cancer of the breast. M. Broca found an enormous lipomatous tumour in the pelvis of a man who died at the hospital Necker. These cases do not enable us to obtain any general notions relative to lipomatous tumours of the abdominal cavity; but they show that we should not be too hasty in concluding that an internal tumour is cancerous, merely because the patient labours at the same time under external carcinoma.—*Biolog. Soc.*

FOREIGN AND PROVINCIAL CORRESPONDENCE.

FRANCE.

THE GUILLOTINE AND JOSEPH GUILLOTIN.

Few English readers are aware that the dreadful instrument of revolutionary vengeance was the invention of a physician; and even those acquainted with the fact have been accustomed to envelope in the same execration the instrument and its author. Yet Joseph Guillotin was a philanthropist of the noblest kind; and his object in proposing the fatal machine which facilitated so many crimes, and led to such destruction of human life, was, on the contrary, one of benevolence and humanity. It may, then, be interesting to devote a few lines to the history of a man whose name, by a strange fatality, has become associated with the vilest criminals, and that from the efforts which he made to deprive death of its horrors.

Joseph Guillotin was born at Saintes, on the 29th March, 1738. He distinguished himself at an early period, and was professor at the Irish College of Bordeaux when a youth. The Jesuits endeavoured to enlist him, but he avoided their temptations, and betook himself to Paris to follow the profession of medicine. Here he became the favourite pupil of the celebrated Petit, and obtained several prizes; but was compelled by poverty to take out his degree in a provincial college. It was not until 1770 that Guillotin, then 32 years of age, was enabled to take out the Parisian degree. Even at that period the elements of revolution were fermenting, and the most distinguished men in France were sowing those seeds of political liberty, which, alas, were so soon to produce a harvest of crime and blood. Guillotin published a remarkable work, entitled "Petition of the Citizens inhabiting Paris," in which he domonstrated the urgent necessity of several reforms. His ideas, however, were considered too bold—even bordering on treason—and he was reprimanded by the Parliament, while the people bore him home in triumph on their shoulders.

The name of Guillotin having thus been made popular, he was soon returned as member by the city of Paris, and subsequently formed one of the National Assembly.

At the early period of this celebrated convention, none of the wild theories which afterwards disgraced the French revolution were entertained; but practical men directed all their efforts to the reform of abuses, and the equalization of rights. It was laid down that all crimes were personal, and that the disgrace attached to crime should not extend from the guilty author to his innocent family. Capital punishments, at the time we speak of, were inflicted by hanging, which was considered an infamous death; while, on the contrary, decapitation, being reserved for the nobles, was regarded as a mode of death unattended by infamy. Dr. Guillotin,

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as a legislator, saw the injustice of the inequality; and, as a medical man, sought the remedy. Hence the origin of his invention.

On the 28th November, 1789, Guillotin ascended the tribune of the National Assembly, and explained his plans. His object was twofold—to render death less painful by the rapidity of execution, to apply the same species of punishment to all classes of citizens, and establish equality before the law. The project, thus understood, was well received; but the Abbé Maury drew attention to the danger of accustoming the people to the sight of blood. In spite of this prophetic warning, the principle was adopted, the plans submitted to a committee, and "Guillotin's apparatus"—so it was then called—considered perfect after many trials on animals and the dead body. A proposal was made to place on the basement the celebrated lines of Malherbe:—

"Et la garde qui veille aux barrières du Louvre
N'en defend pas les Rois."

borrowed evidently from the

"Pallida mors equo pulsat pede pauperum tabernas,
Regumque turres"

of the Roman poet.

The first execution with the guillotine took place on the 27th May, 1792. The first political execution on the 21st of August, in the same year, when a clerk named Collenot, was executed for conspiracy. These first trials failed, and the machine would have been abandoned, had not the great surgeon Louis,—more accustomed to cutting instruments—proposed an essential modification. The blade of the original instrument was horizontal, and therefore crushed rather than divided the victim's neck. Louis gave the blade its oblique direction, and rendered it a perfect cutting instrument. In commemoration of this improvement, an effort was made to name the machine "Louisette;" but, fortunately for the memory of Louis, the name did not take.

The reign of terror had now set in, and Guillotin's instrument was set to work from one end of France to the other, shedding torrents of blood. The unhappy philanthropist was stricken with a pang which clung to his heart's core for the rest of his life. Many of his best friends were the earliest victims, for no less than seventy-three medical men were condemned and executed. The destruction of the Academy of the Faculty of Medicine, and of all the scientific institutions—the long and horrid agony of Bailly—the death of Lavoisier, and so many other illustrious victims, plunged Guillotin into the deepest despair, and he could never regard the instrument, which was once his pride, without a struggle nearly amounting to convulsions. It haunted him wherever he went—on the public squares—in private residences—even in the very churches; for, by one of those refinements of cruelty peculiar to that savage period the guillotine had become a plaything, an ornament—placed on the chimney-piece, and on the very altars.

Although occupying, by his position, an elevated rank amongst the revolutionary leaders, Guillotin never ceased to express his horror of their sanguinary acts. His aversion for Robespierre was immense, and not dissimulated. He judged the man as a physiologist and philosopher.

"No one (said Guillotin) has ever been near enough Robespierre's heart to discover all the gall and hypocrisy which it contains, to seize the worm of pride and ambition which devours it. His words and his style have an odour of blood." These and similar remarks having reached the ears of the tyrant, he threw Guillotin into prison, and the inventor would have inevitably perished under the blade of his own instrument, had not the revolution of the 9th Thermidor, and the fall of Robespierre, relieved him and so many others from danger.

Guillotin now withdrew from public life, and endeavoured to seek within his own conscience that repose of which events had hitherto deprived him. Here, again, disappointment awaited the philosopher. The physical principle of his invention was questioned by many celebrated physiologists, who declared the punishment by decapitation to be the most painful of all, inasmuch as consciousness, or the sentiment of *self*, remained in the head when separated from the body. This was a cruel blow to poor Guillotin, already broken down by his sufferings during the reign of terror. The theory of the persistence of consciousness after decapitation was sustained by the great Sœmmering in Germany, and in France, with remarkable talent, by Dr. J. J. Sue. On the other side, Dr. Gastelier, who had written a dissertation on the guillotine while under sentence of death, demonstrated the error of Sœmmering, and the authority of Cabanis finally settled the dispute in the sense accepted at the present day. It is a remarkable fact, that Guillotin remained silent during this discussion, which interested him so deeply. The memory of the past seems to have paralysed all sentiment of personal feeling in him.

During the Directory, Guillotin appears to have devoted himself exclusively to the practice of his profession. On the introduction of vaccination into France, he was appointed member of the Committee charged with the duty of popularising that invaluable discovery, and to it he devoted for many years his talents, zeal, and untiring benevolence. He likewise assembled together the "disjecta membra" of the old faculty, and instituted an academy of medicine, forming, under his presidence, a nucleus of distinguished men, which, at a later period, became the Royal Academy.

We have already seen how the stern virtue of Guillotin refused to render homage to Robespierre. The same unbending principle was exhibited in his relations with the Emperor. He could never tolerate the politics, tendencies, or despotism of that extraordinary man, and, after the assassination of the Duke d'Enghien, his indignation knew no bounds; so much so, that he was summoned before the Prefect of Police, and invited to moderate his opinions and language.

At this period little remained of the guillotine except its memory—for the Emperor effected military executions—and Guillotin became an object of curiosity. On seeing the man, or hearing his name pronounced, people were seized with an involuntary shudder; yet this prejudice was soon dissipated on hearing him speak, for the conversation of Guillotin was spiritual, and ever marked with the stamp of benevolence. His countenance was extremely expressive, though sombre from reflection and memory; and he scrupulously avoided any allusion, either to his own name or the dreadful events with which it had been associated. His strong constitution bore up against the effects of age and moral despondency for a length of time; but he was attacked by anthrax, and died on the 26th of March, 1814, in the 76th year of his age.

To the last moment of his life he preserved the same liberal opinions, the same love of mankind, which distinguished his earlier days, deploring and detesting the excesses of '93, yet not abandoning liberty, progress, and intelligence, because the most revolting crimes and absurd follies had been committed in their name.

M. CIVIALE AND LITHOTRITY.

Having thus endeavoured to throw some light on the character of one whose name, by an unfortunate concurrence of circumstances, has passed down to us as a by-word of reproach, allow me to allude briefly to the living, and vindicate M. Civiale from an unjust attack which Mr. Phillips has made on the reputation of that distinguished man.

In a report of the proceedings of the Medico-Chirurgical Society, (*Medical Times*, No. XXI., p. 552,) Mr. Phillips is made to revive the long-exploded and oft-refuted accusation against M. Civiale, relative to the Necker cases. "Mr. Phillips (it is said) in energetic language condemned the conduct of those who content themselves with publishing their successful cases, leaving the unsuccessful ones in obscurity. He alluded to the position in which Civiale was placed, a few years back, by reporting 244 cases of lithotrity at the Necker, and 236 cures, he having omitted to state that he had sounded 97 other cases, which he rejected for operation. Had they been added, the cases (of what?) would have been 341, cures 236—the reverses being 1 in 3, (of what?) instead of 1 in 30."

There is in this reasoning a lamentable want of logic, which a little reflection would have enabled Mr. Phillips to avoid. Mr. Phillips has confounded together the statistics of calculus and of lithotrity. With the latter alone was M. Civiale concerned, and he was, therefore, perfectly justified in omitting the 97 cases rejected by him for operation. M. Civiale had to determine in how many cases of lithotrity that operation proved successful, not to how many cases of calculus it was applicable. He operated in 244 cases, and obtained 236 cures. Had he examined 500 other calculous cases, and rejected them, this could not have altered the terms of the question. When Martineau published his long series of successful cases by lithotomy, it is well known that he had sounded and rejected hundreds of cases of calculus as unfitted for the operation; yet no one ever dreamed of insisting that these rejected cases should be regarded as cases of lithotomy, and the ratio of success diminished thereby. Mr. Phillips, then, I repeat, has fallen into a confusion of things perfectly distinct. When he says "the cases would have been 341, cures, 236," he means the cases of calculus, not the cases of lithotrity. When he affirms "the reverses were 1 in 3, not one in 30," he means 1 in 3 cases of lithotrity, and one in 30 cases of calculus, thus comparing together numbers which represent things manifestly dissimilar. By this process of reasoning, all the cases of calculus in the universe might be brought into the account.

Let us suppose a surgeon desires to ascertain the relative merits of extraction and couching as operations. He extracts in 50 cases

and obtains 25 cures; he couches in 50 cases and obtains 10 cures. But he has examined 100 patients affected with cataract whom he considers unfit either for the operation of extraction or depression. To which of the two categories do these rejected cases belong? Would he not be justified in stating, that extraction gave him 50 per cent. of cures, and depression 25 per cent., without taking into account the rejected cases. Assuredly so, for, if he were to reckon these same cases, it would be impossible for him to know what to do with them. They would suit neither side of the equation.

MICROSCOPIC EXAMINATION OF A HORN.

If men, speaking metaphorically, are chiefly subject to this incommodity, old women appear to be exclusively favoured with it when the phenomenon is material. A very remarkable case occurred some time since in the practice of M. Grisolle, at the Hospital of St. Antoine. The horn was no less than six centimetres in length, and so curiously twisted, like that of a buck-goat, that it would have made the respectable measure of ten or eleven centimetres if spread out in fair proportion.

Some "meddling" midwife undertook to extirpate the ornament by ligature, and killed the patient. M. Lebert examined the substance with the microscope, and found that the whole was exclusively composed of epidermoid tissue. The "horn" then is simply a kind of conical corn, and nothing more. Why it should be confined to old women is a subject worthy of investigation. Some of your distinguished obstetricians, Sir James Eyre for example, might perhaps throw light on the matter.

LIGHT A PHYSICAL SUBSTANCE.

Recurring to discoveries, from which Dr. Walfer and the old woman have led me away, I may mention that Recamier has announced one, which, if it *be* fact, will be one of the most remarkable novelties of the present age. M. Recamier has presented a short note to the Academy of Sciences, with a detail of certain experiments which led the author to conclude that light is a physical substance capable of being employed as a locomotive power. This would beat steam and electricity hollow. Think of our being able to realise the dream of the poet, and "riding on a sun-beam."

LIGATURE OF THE PRIMARY ILIAC.

M. Chassaignac lately performed, for the first time in France, the important operation of taking up the primary iliac artery. The patient, a man 49 years of age, had an enormous cancerous tumour of the thigh, which penetrated for some way into the abdomen, through the crural ring. The tumour was removed without any hæmorrhage; but the patient died on the following day.

GENERAL CORRESPONDENCE.

ALLEGED LUNATICS' FRIEND SOCIETY.

[To the Editor of the Medical Times.]

SIR,—In your number of the 4th inst. you express a fear, that the members of the "Alleged Lunatics' Friend Society" are "apt to see things through a hazy and distorted medium." As an advocate for honest and impartial inquiry, I will trouble you with a short comment on the subject-matter of your remarks, and endeavour to ascertain whether or not that Society has failed to "make out their case to the satisfaction of the public."

You aver, Sir, that it is a fact the Society have not yet done this, and that the "general apathy" complained of on the subject of lunacy law abuses is attributable to that defect. I, on the other hand, say, that neither is it a fact the Society's objects are unsatisfactory to the public, nor is it true, that the "apathy" of the public with regard to them proceeds from no case being yet made out.

In proof of my first point, I will merely remind you of the recent presentation, at Gloucester, of the "Purnell Testimonial," when the voice of that county, at least, was raised to record faithful and vigilant services on behalf of him who is ready to perish.—(See Earl Fitzhardinge's address.)

Having thus shown that the Society's objects are not unsatisfactory, but, on the contrary, warmly responded to, in Gloucester, I think, Sir, I may well call on you to trace "the apathy" to some other cause; for the present, I am content to attribute it to the causes assigned in the letter of Mr. Perceval, or rather to speak of it as prevailing among the people to an extent which can only be attributed to neglect on the part of the public press, and not to want of care, nor of humanity to support that case.

I will not, Sir, do injustice to your readers by dwelling on the random shafts you direct at the "Society's obscure existence," their "wandering about the country," their "eloquent harangues at Exeter-hall," and such like civil abuse. If other counties will only take pattern from Gloucester, the Society will be quite contented to answer such light arguments with such facts as that, I have no doubt.

Your reiteration, however, of the innocence of the authorities attached to lunatic establishments, in refusing admission to an ineligible case, *i. e.*, a person not mad or idiotic, and of the clear necessity, in your opinion, for lunatic asylums in Jersey, I cannot so pass over. I believe the innocence of gentlemen in that respect to be very dubious; nay, I will say further, that I have heard, on good authority, of the only answer given by keepers of asylums being in many instances, "I am responsible to Government, and to the parties placing you here, for your safe custody, and cannot release you if I wished. You are under certificates, the Commissioners are the only parties who can do it."

Of course, it is not to be supposed that gentlemen can waste time and money in effecting the discharge of a patient whose detention and oversight is well paid for!

The absence of asylums in Jersey—of private asylums I mean—I also rejoice in; and totally disagree with your view, that they are a desideratum which that pleasant island requires. Neither can I hold with that sickly sentimentality to my mind, which would always draw a veil over such a domestic calamity as insanity. I am not ambitious of being considered a prophet; but I fancy that, a few years hence, and it may be only a few months, it will be considered quite practicable for a jury of "honest men" to pass a verdict in cases of insanity, unshackled by the dicta of those who, I gather from your article, are to be looked on as authorities *alone* in "the phenomena of bodily and mental disease."

You are aware, Sir, of an article in the *Times* some months ago, in a certain case called "Nottidge *v.* Ripley," and also of the wish expressed very recently by the learned judge, that in the case then before the Court, the physician—Dr. Munro, I believe—would confine himself to evidence, and not advance his private opinions.

It is quite clear to my mind, that the public are mistaken in supposing that, in the event of a party being attacked by insanity, he must be for ever afterwards an insane man; and further, in their idea that he cannot be restored to sanity, and manifest *sano mens in corpore sano*, unless he be incarcerated in, and undergo the ordeal of, a lunatic asylum. But Sir, it is also, in my belief, quite as clear that when they shall shortly give better attention to the subject, they will think very differently, as it appears the Gloucester folks already do; and they will then not only see the necessity for reforming the Lunacy-law, but afford a more substantial proof than you at present recognise, of the "Alleged Lunatics' Friend Society" having "made out their case to the satisfaction of the public."

I am, &c., FIDELIS.

THE HOMŒOPATHS.

[To the Editor of the Medical Times.]

SIR,—I would not, according to promise, trouble you again on the subject of homœopathy, might it not appear to some readers that Dr. Dudgeon has sufficiently answered my queries. I briefly state, then, that that gentleman has not, in the slightest degree, explained any of the questions to which I directed his attention, but, by the usual homœopathic circular logic, has led round and round the point at issue, but has never himself grasped it. I may be allowed to mention one instance which I put forward to exemplify homœopathic sophistry. I took the favourite example of a frozen nose being rubbed with snow, because snow is cold, and denied that this was an illustration of the homœopathic motto, since friction is the remedy employed, and not simply the application of snow, either in large or infinitesimal quantities.

I asked Dr. Dudgeon to withdraw his mind from the mere words made use of, and show me if, in reality, any means were used in such a case which would produce cold in a healthy nose, according to the theory. To this he answers, evidently not caring for explanation, that we have nothing to do with effects and secondary results, but attend only to the primary actions of remedies. It matters not, that is to say, whether such application would produce cold or not, so long as snow, which is *cold*, is used for a disease produced by *cold*, and so long as the same word may occur twice over, and produce the usual verbal jingle. Thus, at last, has Dr. Dudgeon confessed, what I stated months ago, that the homœopaths play into mere words, and found instances on verbal jugglery, which, if investigated, will be found often to prove just the contrary to what was intended. I defy Dr. Dudgeon to bring forward

any unprejudiced man, known in the sister sciences, to corroborate his opinion, that the above example is an illustration of the motto.

I find I have needlessly troubled myself in investigating the inconsistencies in the law, since many of its followers have discovered these for themselves, and have renounced the doctrine. The last number of their *Quarterly Journal* (edited by Dr. Dudgeon) contains a new theory of homœopathy; and Dr. Holland, physician to their hospital, has for some time published his opinion, that all effects ascribed to their treatment is, in fact, due to the influence on the mind and nervous system.

As like, then, is cured by like, we need not fear that a speedy dissolution will take place in this aristocratic body. This law, I am beginning to think, will work a better cure than that of opposition, which, indeed, would never have been made use of, did we not all, as Englishmen, feel that a monument is being raised to commemorate the folly and knavery of the present age. Future silence, on my part, must be considered as the silence of contempt.

I am, Sir, &c., SAMUEL WILKS, M.D. Lond.

1, Bethel-place, Camberwell.

SELF-SUPPORTING DISPENSARIES.

[To the Editor of the Medical Times.]

SIR,—I am one of those who are strongly opposed to the pulling down of any existing system or institution, merely because some other system or institution can be imagined theoretically free from its defects. I have seen enough to convince me, that all the social contrivances of mankind, however promising, are liable to some faults, or failings, or objections, which have been overlooked by their first founders. But I am also persuaded that no greater service can be rendered to mankind, than by the wise adaptation of new systems to new states of society; that there is no higher intellectual gratification than that of propagating these systems, and no higher moral qualification than a patient and modest submission to the verdict of our contemporaries with regard to their merits and their fitness.

The question of self-supporting dispensaries has been discussed, like too many other questions, in a temper that is not creditable to our Profession. It has been complicated, too, in a very unnecessary manner, with matters that do not belong to it.

An appeal to posterity, in case of rejection, may be a very dignified and proper solace if becomingly made, but if it have any tincture of ill temper, it should be rebuked by the recollection, that posterity does not know the whole state of the case any more than we of the present time. Posterity makes as many blunders in looking back, as the present generation does in looking forward.

The term "self-supporting," I think, *must* be given up, wherever any part of the funds are supplied by charitable contributions. Where this is not the case, the term expresses one part of the fact. But surely the word "dispensary" is quite as objectionable. It suggests the notion that the benefit provided is simply the medicine dispensed. It ignores altogether the value of the care and skill of the medical officers. These, it takes for granted, shall either give their services gratuitously, or receive from the subscriptions a sum too small to be called a remuneration. Indeed, the word "dispensary" relates to a state of things which the new system is tending, in concurrence with many other forces, to abolish. The old dispensary is to its district, or village, or town, what the dispensary or shop of the hospital is to the hospital itself. The physician and surgeon give their advice gratuitously. The dispensary, with the dispenser, is supplied by the charitable governors. A town that could not support a hospital, and thus give scope to the energies of that class of practitioners which a hospital reputation tempts to sacrifice present gains to the hope of future eminence; to those men, in short, who play for the higher stakes in the professional lottery, could yet support a dispensary, and thus give scope to the energies of men whose ambition or whose powers were regulated by limited capabilities of the locality. In the larger cities the physician and surgeon of the dispensary, as well as of the hospital, was understood to abstain from the dispensing or sale of medicines, which, by a figure of speech that will puzzle the philologer of no very distant posterity, has come to be called "general practice." But in smaller towns this is not the case either with the hospital or dispensary physician.

In the very largest cities, too, a class of men has now risen up, who are competent to take medical charge of the population, but who cannot afford to devote their whole time and means for many years to the establishing by gratuitous practice of a reputation which shall some day command a high price. They must get their living by a class of people who never will be able to pay that high price.

Now I take it what Mr. Smith, of Southam, and his supporters wish to do, is to provide a machinery whereby, the pauper only being excluded and left to the tender mercies of competing Union officers and economising boards of guardians, the mass of the population who can contribute something towards their own medical relief, and who are unable or unwilling to enter a hospital, may be enabled so to contribute at the cheapest possible rate, and the practitioner who is unable to compete for the great prizes afforded by a hospital reputation may receive some present reward for his modest and unpretending, but highly useful exertions.

This is no doubt exceedingly desirable; but, in their attempt to effect it, Mr. Smith and his friends have raised up a host of objectors. The more clamorous of these have raised one of those "shrieks" which are in their very nature excito-motory and instinctively protectionist, and as often follow an imaginary as a real injury. The dignity of the Profession is threatened. To charge 3s. 6d. a piece for bottles of fluid, whether needed or not, as the only way of getting paid for attendance, and to recover the price by suit at law, was not undignified. To canvass the governors of a hospital or a dispensary for the privilege of attending the patients for nothing, was not undignified. To open a shop to compete with the chemist and druggist in the sale of drugs was not undignified, if it *paid*—as it generally did, and still does in a good neighbourhood. But to attend all the unpauperised of one's own neighbourhood on very low but equal terms, and those terms such as are agreed on by all one's neighbouring fellow-practitioners, this is undignified if it does not pay—and the shriekers fear it will not.

I, too, fear it will not pay; at least, not if we cry it down in this wild way, and get its supporters shunned and evil spoken of as needy adventurers or base plotters against the dignity of "general practice." Would it not rather be well, as Mr. Carlyle says, "to leave shrieking for a while," and seriously to consider what is the good and what the objectionable part of the plan. The good, I think, is very considerable. There is the unpauperizing many of the working classes, and giving them provident habits; the taking their cases out of the hands of the druggist and the nostrum vendor; the separating, to a great extent, the medical services from the supply of medicines; the substitution of real and certain annual payments for nominal and uncertain debts; the promotion, by those whose interest it is to keep them well, of good habits and sanitary precautions among the people. The low price, on the other hand, is a serious objection, and the not separating entirely and completely the eleemosynary from the self-supporting element, and the medical service from the supply of medicines. So is the competition which must ensue between the officers of those of the hospitals for a class of patients upon whom the former depend for bread, and the latter for reputation. Has it ever occurred to any of us, to ask this question,—If the Poor-law system of medical relief were consistently and efficiently carried out as it ought to be in all parishes, and as medical relief is carried out in the naval and military services, with a proper system of inspection and control by high medical authorities, what would become of the hospitals, even of their in-patients, to say nothing of the crowds of out-patients, and of the Dispensaries? Or, to reverse the question, Could the parochial medical officers of any one metropolitan parish, by any amount of exertion, do one-fourth or even one-tenth of the duty that must fall to them if all the unrecognised sources of relief were suddenly closed.

But surely a remedy will gradually be found for the extreme lowness of price. Let the attendance on the very poorest of the unpauperized, at a minimum scale of payment, be recognised and adopted, as a social necessity, by respectable men, and not stigmatised as the resource of the adventurer; otherwise, "the respectabilities" will be scared out of it, and it will become really the exclusive property of the adventurer, and a very good property too, in his hands. Then, let the system of annual pre-payments of small but certain sums gradually be introduced into higher and higher classes, and take the place of the high nominal charges, with uncertain or disputed payments now so common on the credit system. To facilitate this, let any man, in good general practice, make a list of his supposed patients, and divide their number by the number of pounds or half pounds which represent his income; or let him take a dozen of his best families and their bills for ten years, and see what is the average pay for attendance on each member. I am much mistaken if it will be found as high as it is supposed to be, even with the bad debts thus weeded out.

The talk about dignity in relation to price is absurd. A man's real dignity lies in his work and in his way of doing it. A full surgeon in the army gets 15s. a day, and two assistants 7s. each, for the care of about 800 men and officers. How much is this a day per head? About twopence farthing, including officers, besides many women and children. What is really wanted to make the

self-supporting system complete, I think may thus be summed up:

1st. Its very general adoption by medical practitioners.

2nd. A scale of prices, 1st. for different classes, or conditions of age and healthiness; and 2d. for different orders, or degrees of rank and income.

3rd. The separation, as completely as possible, of the medicine from the attendance, by establishing depôts, or making proper arrangements with druggists.

4th. A record of cases and treatment.

5th. A habit of consultation amongst the ordinary medical officers.

6th. A system of inspection by a higher grade of medical officers, as referees or consulting practitioners, in special, doubtful, or dangerous cases.

There really wants a little more common sense in our medical social arrangements to effect such changes as medical politics cannot reach. I am no destructive; I have even a dread of being over *con*structive, while anything must be pulled down to make room for my plans. But I do think the Profession is in a most pulpy and plastic state, ready to take impressions for good or evil. Coloured lights and plate-glass dazzle us in every street; counter-practice slays its thousands. A Poor-law union officer agrees to attend and to physic a district for the price of turnpikes and horse shoes. Dr. Silky gets a guinea twice a day for treading softly on the carpets of Belgravia. Dr. Sulky gets nothing but huffs for attending half St. Giles's for his dispensary. Surgeon Cutfree amputates at the hip-joint, and gives his patient "only one black draught." Dr. *Curie* treats his patients with imperceptible globules. Dr. *Killie* gives six draughts a day. I hope, by the by, there is no such name in the "Directory;" if there is, Sir, you must give up my real name and address, and say that I cannot stay at home to be horsewhipped after twelve, except by appointment.

Your readers will know me sufficiently as your obedient servant,

JACOB.

HARE-LIP APPARATUS.

[To the Editor of the Medical Times.]

SIR,—In the *Medical Times* of January 11, your correspondent, Dr. Hastings, has directed attention to the apparatus recommended by Mr. Fergusson in bad cases of hare-lip and cleft palate, as not being the first of the kind which has been used for pressing together the cheeks after the operation, and has referred to an account "of a pecular method of operating for hare-lip, extracted from a memoir of Mr. Ollenroth, surgeon," in the *London Medical Review* for 1801. This last I have not had an opportunity to see; but it is due to our excellent friend and experienced surgeon, Mr. Dewar, of Dumfermline, to state, that in the *Edinburgh Medical and Surgical Journal* of 1st July, 1830, he has given an account of cases of hare-lip, with plates, and a description of an apparatus identical in principle, and much more simple, employed successfully on these occasions. After adverting to the difficulties experienced in retaining the edges of the wound *in situ*, he adds:—"It occurred to me, that, as a very slight degree of pressure on the cheek, on each side, near to the corner of the mouth, relaxes the upper lip, a narrow piece of steel, having a spring, might be so adapted as effectually to answer my purpose. I had, accordingly, a spring made, nearly resembling a pair of sugar-tongs, and so padded as to press on the cheek near the mouth. It was kept in its place by a narrow tape, tied over the chin, and by three tapes which were fastened, one behind, and one on each side, to a piece of leather placed on the crown of the head. This simple contrivance answered every purpose admirably. I could relax the lip by it to any degree I wished, and it could be worn without the smallest inconvenience. The strain was thus taken off the pins, and the process of healing advanced in the most favourable manner."

While it is probable the apparatus recommended by so very competent a judge as Mr. Fergusson will be adopted in localities where the more complicated and expensive instrument can be conveniently had, to practitioners otherwise situated, the cheaper and more easily-obtained apparatus of Mr. Dewar may, on these accounts, have its own recommendations.—I am, &c.,

Kinross. ROBERT ANNAN, Surgeon.

THE PERINEAL SECTION.

[To the Editor of the Medical Times.]

SIR,—Having read, in a leading article of the *Medical Times* of Saturday last, some remarks on a case of stricture by the urethra, which terminated fatally after the operation by external incision, I beg to call your attention to some facts in the history of the case, with regard to which you appear to be in error, and I have to request that you will, as soon as possible, give publicity to the following statement relative to the case in question:—

1st. The case referred to was not under Mr. Syme's care. Mr. Syme never saw the patient till he was upon the operating table. The case was treated and operated on by me.

2nd. The natural inference to be drawn from the statement of the case in your journal is, that the patient must have died from loss of blood. It was not so. Although the greater part of the bulb and a stricture of considerable extent anterior to the scrotum were divided in the mesial line, the bleeding altogether did not amount, at the time of the operation, to *four ounces*. A little oozing took place after the patient had been removed to bed; but, taking this into account, *the entire loss of blood, from beginning to end, did not exceed, if it amounted to six ounces*, a loss which, I need scarcely say, did not prove in the least degree prejudicial.

3rd. The patient died on the eighth day after the performance of the operation, from absorption of pus into the circulation, (*pyhæmia*,) a disease which has been prevalent here lately, and from which I lost a patient who had submitted to amputation of the thigh in the same ward a short time previously.

4th. Transfusion was employed, not twice, but once. The circumstances which induced me to resort to transfusion will shortly be published in a full account of the case, and I need not enter upon these at present.

5th. The case was treated in a public ward in the hospital; the operation was performed in the operating theatre in the presence of the students of the hospital; the subsequent progress of the case was seen by all; the *post-mortem* examination was conducted publicly in the pathological theatre; and, lastly, the history of the case was related by me, and the parts shown, on the earliest opportunity, at a meeting of the Medico-Chirurgical Society, in the Transactions of which Society a full history of the case will appear in due time.

Under these circumstances, it will be seen, that, instead of any attempt having been made to conceal the unfortunate issue of the case, all publicity has been given to it. This, I considered desirable for two reasons: first, that no ground might exist for stating that a case, the result of which was unsuccessful, was not reported; and, secondly, that no misconception might exist as to the cause of death, with which hæmorrhage had nothing to do.—I am, &c.,

RICHARD JAMES MACKENZIE,
Junior Ordinary Surgeon to the
Royal Infirmary, Edinburgh.

[An Edinburgh correspondent—but not "*our*" Edinburgh correspondent—furnished us with the information alluded to above. We have since received a letter from him, stating that he found, his information was somewhat incorrect. The above letter supersedes the necessity of publishing that of the gentleman in question. Our sole object is truth, and our pages are open to all authentic discussion on this subject. If wrong ourselves, none will be found more ready to acknowledge error.—ED. *Medical Times.*]

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Dr. J. R. BENNETT, President, in the Chair.

NEW PREPARATION OF IRON.

Dr. Routh exhibited to the Society two specimens of phosphate of iron dissolved in metabasic phosphoric acid—one in a solid, the other in a fluid state. The compound was prepared by adding as much phosphate of iron as the metabasic phosphoric acid in a boiling state would take up, and allowing it to cool. The proportions would be found, as nearly as possible, two of acid to one of the phosphate. The solution obtained is of a semi-transparent, greenish or slaty hue. If exposed to the air for a day it hardened; but mixed with liquorice powder or flour, it could be made up at once into pills. The compound was soluble in any proportion of water, and free from any nauseous, inky taste. Dr. Routh had not analysed it, and could not assert whether it was simply a solution of the phosphate in the acid, or a new superphosphate that was formed. He had given it largely. It appeared to him to be better adapted for and more speedy in bringing about a cure, than other preparations of iron, in some cases of anæmia and debility, brought on by venereal or other excesses, overstudy, and other depressing diseases, in each there was a preva-

lence of nervous symptoms, and a large quantity of phosphates voided by the urine. It seemed to act on the same principle as cod-liver oil, i.e., as the latter might be considered to supply the amount of carbon necessary for combustion directly to the lungs, thereby checking the drain upon the system, and allowing it to rally from its hectic state; so he supposed the present remedy supplied directly to the brain the amount of phosphorus necessary, to the undue diminution of which the nervous disorder was probably owing. The medicine did not gripe or constipate. He gave it in doses of j. or ij. grains three times a day.

In answer to a question, Dr. Routh stated that he had obtained one specimen from Mr. Morson; but most of that he had employed had been prepared by Mr. Greenish of New-street, Dorset-square.

Dr. Snow read a paper:—

ON THE INHALATION OF VARIOUS MEDICINAL SUBSTANCES.

He said, that previously to the discovery of etherization, medicines had rarely been inhaled, except with a view to their local action; but that there was no more reason to limit inhalation to pulmonary diseases, than to restrict the exhibition of medicines by deglutition to affections of the stomach and bowels. He admitted, however, that the proper administration of medicines by inhalation was attended with much greater difficulties than their exhibition in the usual way. The chief object of his communication was to point out the manner in which certain medicines could be inhaled. According to their different physical properties they might be inhaled either with or without the aid of heat; when heat was employed, they might be inhaled either in the dry way, or with the vapour of water. The inhalers employed were described in a former number of this journal (a). The fumes expelled by heat from the extracts of opium, stramonium, and aconite, were inhaled dry. Ammoniacum and other gum resins could be inhaled either in the same way, or with the vapour of water. Turpentine, creosote, camphor, iodine, and benzoic acid, had been conveniently inhaled along with watery vapour, by placing the dose of medicine to be used in about half an ounce of water, which was heated by the flame of a spirit-lamp. Several of these medicines had also been inhaled at the ordinary temperature of the air, without vapour of water, as also had ammonia, hydrocyanic acid, and chlorine. For drawing nitrate of silver into the larynx in the form of powder, the bowl of a pipe, with a glass tube fitted into it, was used. A grain of nitrate of silver, finely powdered with five grains of loaf sugar, were inhaled, by a strong inspiration, once a day. The sugar was recommended by a French author for diluting the agent, and had an advantage over lycopodium powder and similar substances, which, not being soluble in the mucus of the air passages, caused irritation.

At the hospital for consumption at Brompton, the physicians to which institution had invited Dr. Snow to assist in contriving and superintending the inhalation of medicines, opium had been inhaled by a considerable number of phthisical patients generally with marked benefit. Relief had also been obtained from several other medicines; but the inhalation of iodine and chlorine had apparently not been attended with any advantage. It might not be uninteresting to mention that, whilst four patients were inhaling chlorine twice a day, in the summer of 1849, two of them were attacked with cholera, they being the only patients in the hospital that were attacked with it at the time. As chlorine can be smelt exhaling in the breath for hours after the patient has inhaled it, he thought that this occurrence was opposed to the hypothesis, that the diffusion of chlorine in the air had the power of limiting or preventing the spread of cholera. It was not his intention to treat of the inhalation of chloroform on the present occasion; but having been speaking of pulmonary affections, he might state that he had never seen chloroform fail to relieve an attack of spasmodic asthma in any case in which it had been inhaled.

In the discussion that followed, Dr. Routh, Dr. Theophilus Thompson, Dr. Winslow, Dr. Snow, Mr. Streeter, Mr. Barlow, and Mr. White took part. The last named had succeeded in affecting the system with mercury by inhalation, without disordering stomach or bowels. Dr. Snow had not experimented with that drug, but believed his apparatus was equal to effect the object. Dr. Thompson spoke in terms of praise of inhalation, but admitted it was not of use in consumption; the cause of the disease lay too deep. Dr. Winslow, Dr. Snow, and Mr. Barlow, spoke well of chloroform in convulsive and spasmodic diseases. In tetanus, although it could not cure, it would afford relief. In certain anomalous nervous diseases, when the patients could not sleep, Dr. Winslow sprinkled half a teaspoonful of the anæsthetic on a handkerchief, and laid it on the pillow. Its action was always sedative.

(a) See *Medical Times*, Dec. 7, 1850.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. Latham in the Chair.

Dr. Quain presented a specimen of

ANEURISM OF THE LEFT VENTRICLE

of the heart in a youth who was brought dead into University College Hospital. The body was examined by Mr. Scriven, who obtained the following history. He was an errand-boy, fourteen years of age; his health had been good until five months before his death, when he took cold and complained of pains in his limbs, from which he was never subsequently free. For a month preceding his death he had been observed to be getting thinner; about a week before his death he had complained of palpitation and pain in the region of the heart, and he had a fainting fit, which with the symptoms just named soon went off. The day before his death he complained of pain at the epigastrium, which soon disappeared. He did not suffer from dyspnœa; in fact, he followed his occupation, and was not supposed to be ill. At the time of his death he was seen sitting by the side of the road, when suddenly he uttered a cry and fell on his side, and on being raised up he was pronounced dead.

Post-mortem.—There was nothing particular in the lungs or pleura, except a little recent lymph and serous effusion at the left side. The pericardium occupied a larger space than usual, and was found filled with bloody serum, and a clot of blood which weighed 3 oz. There existed an old firm pericardial adhesion at the apex. The hæmorrhage was traced to an orifice in an aneurismal sac existing at the base of the left ventricle. This sac was shaped somewhat like a thimble; it projected outwards and upwards, between the root of the aorta and the left auricular appendage. It was an inch in length, and rather more than two and a half inches in circumference. The orifice, which communicated with the ventricle, was of an oblong form, being one-fourth of an inch in length, and half this measurement in depth, and it was situated immediately beneath the outer or left segment of the aortic valve, and close to the attachment of the mitral valve. There were two other smaller orifices close to the larger one; each would admit a large pin-head, but there were no distinct projecting sacs. The perforation whence the hæmorrhage had proceeded, and which would admit a small sized quill, was found at the apex of the tumour. This point had been adherent to the aricular appendage and to the pericardium. The walls of the sac contained no muscular fibres, but had evidently been formed through yielding of the fibrous texture, and were composed of a cellulo-fibrous texture covered by the serous pericardium, and lined by a smooth membrane which could be traced in continuation with the endocardium. The heart was hypertrophied, and weighed 9 oz.; there was no disease of its muscular walls. The aortic valves were extensively diseased, being degenerated, broken down, and studded with calcareous particles. There were some white patches on the endocardium of the left ventricle. The mitral valve was thickened at its edges, and there was some calcareous deposit on it and on the chordæ tendinea. The right cavities were free from disease; all the cavities were empty. There was no disease in any other organ.

The existence of a well marked aneurism in so young a subject is a point of considerable interest. The age of the youngest subject of this disease, referred to by Dr. Thurnan in his excellent essay, ("Medico-Chirurgical Transactions," Vol. XXI.,) appears to have been eighteen. Another point of great interest appears to be the amount of disease which existed in the heart without causing any serious inconvenience to the subject of it.

Mr. Canton exhibited three specimens of

CHRONIC RHEUMATIC ARTHRITIS

of the knee-joint. The first was removed from an elderly woman, who for some time had suffered from the symptoms characterising this complaint. The outer condyle of the femur presented a series of vertically disposed ridges and furrows alternately arranged. The posterior surface of

the patella showed the same peculiarity, so that when the two were in apposition, an inter-locking was the result, but at the same time ginglymoid motion was freely executed. The encrusting cartilage had disappeared from both these surfaces, and porcellaneous material occupied its place. The second specimen was from a man sixty years of age, and showed the same peculiarities, with the exception of the establishment of surfaces of eburnation to a less degree, though the cartilage had been absorbed to the like extent; the subjacent bone was in part porous and in part porcellaneous; a loose cartilage in this joint, of an oval form, and situated near the inter-condyloid notch. The third articulation was from a middle-aged man, who had long laboured under the symptoms of chronic rheumatic arthritis in the knee and hip of the same side. In the latter joint the disease had committed extensive ravages. In the ligamentous tissues large and small irregularly shaped osseous growths were to be seen, and around the tibial glenoid cavities similar deposits had considerably deepened the surface for the femoral condyles. The external semilunar cartilage was wholly removed, so that the femur and tibia were here in contact. Their opposed surfaces were much expanded, and covered by a continuous and uneven stratum of ivory-like deposit. A large number of loose and adherent cartilages were in the joint, and which varied in consistence from the cartilaginous to the osseous.

Mr. Prescott Hewett exhibited a specimen of

OMENTAL SAC IN A SCROTAL HERNIA,

and remarked, that he had great pleasure in being able to bring it before the Society, as it served to confirm the accuracy of the opinion, which he had ventured to express in a paper published some years back in the "Medico-Chirurgical Transactions." In speaking of the formation of complete omental sacs in hernia, he had thus described the origin of one variety of this disease: "An epiplocele takes place, and the portion of omentum which is protruded becomes altered in structure, and its folds firmly united to each other by the effusion of lymph; but within the abdominal cavity in the neighbourhood of the ring, the folds into which the omentum has been drawn may not be agglutinated; they will thus leave spaces into which a knuckle of intestine may insinuate itself, pass through the ring, and form for itself a bed in the altered mass of omentum which is in the hernial sac. It may happen, that two or three portions of gut may slip into the different spaces left between the omentum, and subsequently form for themselves separate pouches. Several separate sacs with narrow necks may be thus found in the omental mass which is in the hernial sac." When that paper was written, Mr. P. Hewett had not yet met with any case of this peculiar form of omental sac, neither had he been able to find any published notice of it. The present specimen he found by chance, some two or three years subsequently, in the body of a person who had died of some other disease. In this specimen, the omentum in the hernial sac was of the shape and size of a common pear; it was intimately united throughout to the hernial sac, and the greater portion of it, very much thickened, formed a perfectly solid mass; but close to the external ring, and in the inguinal canal, it was only slightly thickened and drawn into folds, in the centre of which was a well-formed pouch, large enough to lodge a good sized coil of intestine. One extremity of this pouch reached a little lower than the external ring; the other was in the belly, and about an inch higher up than the internal ring. At this entrance into the pouch, the various folds into which the omentum was drawn had become united to each other by their margins only, and thus formed a complete ring, the circumference of which was very firm in texture, and the size about that of the middle finger; above this ring the omentum was quite healthy in structure.

Such a case as this might, it was very evident, become extremely perplexing to the surgeon. In this patient, a convolution of intestine dropping into the pouch thus formed in the omentum, might have become strangulated by the adventitious ring, and the surgeon cutting down upon the hernia in the scrotum would there have found simply a solid mass of omentum; and, had he not proceeded to examine the parts in the neighbourhood of the external ring, would never have discovered the bowel in the omental sac; and, even supposing that he had discovered this sac, to relieve the strangulation he would have been obliged to have laid the whole of the inguinal canal freely open, and to have got into the abdomen to divide the neck of the sac, which was an inch higher up than the internal ring, and might have been the sole cause of the stricture.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 17th inst.:—

Bell, Arthur, Banagher, King's County.
Hounsell, Henry Strangeways, Bridport.
Husband, Thomas, Madras.
Jordan, Robert Coane Roberts, Teignmouth, Devon.
Lacey, John, Woolwich.
Porter, John George, Peterborough, Northamptonshire.
Rooke, Thomas Morley, London.
Thorold, Harry Octavius, Bombay.
Watson, Henry Noble, Clithero, Lancashire.

At the same meeting of the Court, Messrs. Henry Meredith Speer, Thomas Beswick Purchas, and George Henry Edwards, passed their examinations for naval surgeons; these gentlemen had previously been admitted members of the College, their diplomas bearing date respectively July 20, 1842; June 26, 1846; and December 11, 1846.

Military Appointments.—36th Foot: Assistant-Staff-Surgeon George Frederick Bone, M.D., to be assistant-surgeon, vice Smith, who exchanges. Hospital Staff.. — Assistant-Surgeon Francis Smith, from the 36th Foot, to be assistant-surgeon to the Forces, vice Bone, who exchanges.

University of Cambridge.—Dr. Henry J. Hayles Bond, of Corpus Christi College, has been appointed by the Crown to the Regius Professorship of Physic, vacant by the demise of the late Dr. Haviland.

St. Mary's Hospital.—The Election Committee of St. Mary's Hospital are in a fix. Non-medical, they cannot decide on the merits of the medical candidates,—their pretensions to be hospital physicians being so nicely balanced, their testimonials so similar, their standing so equal. In their great embarrassment, the Committee have determined *to see* the candidates; and Drs. T. K. Chambers, Child, Hare, Sibson, and Swaine, have been summoned for inspection. Whether the lucky three are to be selected upon the principles of physiognomy, or if size is to be taken into account, we have not heard. Physicians have often owed their fortunes to their faces.

University College Hospital.—Thomas Ansaldo Hewson, Esq., has bequeathed 1000*l.* to the above hospital, *free of duty*.

St. Thomas's Hospital.—On Wednesday evening a *conversazione* was held at eight o'clock, by the President and Treasurer of the above admirable Institution, in the find old oak-wainscotted chamber, known as the Hospital Hall or Court-room, for the purpose of hearing, from Mr. J. Flint South, a sketch which he had prepared of the history of St. Thomas's Hospital, with anecdotes and reminiscences of some of the most celebrated persons connected with it. The chair was taken by Mr. Baggallay, the Treasurer. We regret that space will not allow us to give even an outline of Mr. South's very interesting address.

Self-Supporting Dispensaries.—A very numerous meeting of the medical men of the town and neighbourhood of Reading was held at the Great Western Hotel, on Wednesday evening, December, 18th, to hear an exposition of the system of Self-Supporting Dispensaries, by Mr. Smith, their benevolent founder. He very ably demonstrated their benefits; and though no distinct resolution was come to, it was the opinion of the meeting that, if properly founded and superintended, their establishment would be fraught with many advantages. A vote of thanks was unanimously passed to Mr. Smith, whose life appears to have been, and to be, devoted to acts of charity and measures of philanthropy.

Vacant Professorship of Chemistry.—In consequence of the resignation of Mr. Griffiths, the Professor of Practical Chemistry at the Medical School of St. Bartholomew's Hospital, that chair has become vacant. No doubt the Governors will supply the vacancy in a manner calculated to do honour to the School, and justice to the pupils.

Deaths in Public Institutions.—In the week ending Jan. 18, 99 persons died in workhouses, of whom 45 were males and 54 females; in military and naval asylums, 7 males; in general hospitals, 35,—16 males and 19 females; in hospitals for special

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diseases, 7,—6 males and 1 female; in lying-in hospitals, 3; in lunatic asylums 9,—4 males and 5 females; in military and naval hospitals, 9 males; in hospitals and asylums for foreigners, 1 female; and in prisons none. Total in public institutions, 170,—90 males and 80 females.

Neglect of Vaccination.—The Registrar of Christ Church, Marylebone, reports that between the beginning of November, when small pox suddenly became prevalent in his district, and the end of the year, 27 persons died of the disease, and in only two of these cases had vaccination been performed.

Unusually High Temperature.—Last week the excess of daily mean temperature above the average was on Sunday 11°·5, on Monday 9°·9, on Tuesday 7°·0, on Wednesday 8°·5, on Thursday 6°·9, on Friday 8°·8, and on Saturday 4°·1, giving a daily average of 8°·1 excess of temperature over that of the same week of 10 previous years.

The Cholera in Jamaica.—By the late papers it appears, that this disease has now almost entirely disappeared in the district of Laguanea. At Port Antonio, the cholera was abating slowly. The *Kingston Journal*, December 30, says:—"We are glad to state, that the cholera is on the decrease in the town of Montego Bay. Most of the cases yield to medical treatment. The epidemic is gradually leaving the parish of Vere, in some districts only one death occurring daily, although diarrhœa is very prevalent. At Trelawny, the disease has assumed a mild type since Christmas-day—a period of exactly six weeks since it first made its appearance in Falmouth. Another account says, 'it continues its ravages in the parish. It has made its appearance in several places where it had not previously commenced its work of devastation. At Braco estate, three miles from Rio Bueno, the disease broke out on Monday morning, and by that night there were 11 deaths, and 15 under treatment, all of which, it is feared, would terminate fatally. In Duncans, and that vicinity, there had been several deaths to the 23rd inst.' A Correspondent, writing from Lucea, under date of the 26th, says: 'Things have begun to wear a most awful appearance. There have been 7 fatal cases from the commencement of the disease to this day, and 4 under treatment. God only knows how many will live to behold the dawn of another day.'"

Dispensary for Consumption.—A ball took place on Monday evening, at Willis's Rooms, in aid of the funds of the Dispensary for Consumption and Diseases of the Chest, in Margaret-street, Regent-street. The attendance on the occasion was very numerous, more than 500 ladies and gentlemen having been drawn together to promote the interests of an Institution so praiseworthy and benevolent.

Leith Hospital.—The annual meeting of the subscribers to this establishment, which comprises the Leith Dispensary, the Casualty Hospital, and a new Epidemic Fever Hospital, (for the founding of which the late Mr. Stewart left 1000*l.*,) was held lately in one of the large fever wards of the institution. The report stated, that the contract price for building the hospital was 1878*l.*, exclusive of external fittings and the expense of enclosing the grounds. The precise cost has not yet been ascertained. The office of House-Surgeon being vacant, it was proposed that the salary be 60*l.* a-year instead of 40*l.* In the dispensary department, medical aid had been afforded to 2099 patients, 1000 of whom had been visited at home by the house-surgeon, and many more by the other medical officers. 245 cases had occurred in the Casualty Hospital. Seven persons had been attended to by the humane society branch of the institution. The receipts for the last year were 97*l.* 10s. 6d. subscriptions, and a legacy of 50*l.* minus the duty; the expenditure, 73*l.* for medicines, 40*l.* the House-Surgeon's salary, 24*l.* for the housekeeper, 25*l.* 2s. 3d. for the Humane Society's men. Dr. Struthers was elected one of the medical officers.

Liverpool.—The reports for the past year relative to the hospitals and dispensaries have recently appeared:—Infirmary.—Patients admitted, 2253; of these 139 died; severe casualties amounted to 781. Lunatic Asylum.—Admitted 32; cured 15; dead 11; weekly average in the house 69. Lock Hospital.—Admitted 568; cured 409; dead 2; restored to virtue 22. Northern Hospital.—Admitted 3138; of these 2122 were accidents. At the meeting connected with this Hospital, Mr. D. Neilson submitted the following resolution for approval:—"That a special meeting of the trustees of the Northern Hospital be held in the Clarendon-rooms on Thursday, the 30th instant, for the purpose of taking into consideration the expediency of extending the period for the appointment of the honorary medical officers of this institution from ten years, as at present constituted, to fifteen years; and also for increasing the surgical staff of the hospital by the appointment of a junior honorary surgeon, to fill up the first vacancy in the list which may occur." The proposed meeting was agreed to. Southern Hospital.—The report has not appeared in the papers. Dispensaries (North and South) admitted as home and out-patients 30,000.

Recklessness in Dispensing Medicines.—At the Sheriff Small Debt Court, Glasgow, (lately) Mr. Lithgow, a Professor of Music, brought an action against Mr. Hewit, druggist, of Dundas-street, and obtained damages to the amount of 8*l.* 6s. 8d., in consequence of Miss Lithgow having, on the 13th May last, taken a dose of laudanum, which he had inadvertently administered to her, instead of tincture of rhubarb.

Glasgow.—There is every reason to anticipate an outbreak of pestilential fever in Glasgow, from the immense influx of starving Highlanders and their families from Barra. Small-pox, it is said, is already prevalent among these unfortunates. Hundreds are in a state of starvation.

Fees in Sydney.—Medical practitioners practising their profession in the city of Sydney, have published for the information of the public their scale of charges as follows:—

—	1st class. Professional, Merchants, &c.	2nd class. Shopkeepers, Farmers, &c.	3rd class. Clerks, Mechanics, &c.	4th class. Labourers, &c.
	£ s. d.	£ s. d.	£ s. d.	£ s. d.
City Visits.				
Each visit within the city boundaries from 7 a.m. till 9 p.m.	0 10 6	0 7 6	0 5 0	0 2 6
When only one special visit	1 1 0	0 10 6	0 7 6	0 5 0
Consultation at practitioner's residence	1 1 0	0 10 6	0 7 6	0 5 0
Country.				
Not exceeding one mile from boundaries	1 1 0	0 10 6	0 7 6	0 5 0
Exceeding, and for every additional mile	0 10 6	0 7 6	0 5 0	0 2 6
All these charges to be doubled between 9 p.m., and 7 a.m.				
Detention for every hour	1 1 0	0 10 0	0 7 6	0 5 0
Midwifery.				
Attendance in ordinary cases in the city	10 10 0	5 5 0	3 3 0	2 2 0
Consultations.				
With another practitioner	1 1 0	0 10 6	0 7 6	0 5 0
By letter	2 2 0	1 1 0	0 10 6	0 7 6
And assistance with accoucheur or midwife	5 5 0	3 3 0	2 2 0	1 1 0
Certificates of health	2 2 0	1 1 0	0 10 6	0 5 0
Surgical operations, capital	52 10 0	22 0 0	10 10 0	5 5 0
Lesser	10 10 0	5 5 0	3 3 0	1 1 0
Vaccination	1 1 0	0 10 6	0 5 0	0 2 6
Extracting teeth, cupping, bleeding, &c.	1 1 0	0 10 6	0 5 0	0 2 6
Reducing dislocations, or setting fractures	5 5 0	3 3 0	2 2 0	1 1 0

Death of the Marquess of Northampton.—This nobleman, the successor of H.R.H. the late Duke of Sussex, as the President of the Royal Society, expired on the 17th inst., at Castle Ashby, Northamptonshire.

Branding with Caustic.—Mr. Rogerson, the surgeon charged with branding the letter B on a boy's forehead, has been fined 5*l.* for the offence, and ordered to find sureties. The fine was paid immediately.

Black Medical Officers.—It is stated in the *United Service Gazette*, that Government at one time contemplated apprenticing young negroes to the military medical men serving on the coast of Africa, in order that, when fully educated, the negroes might replace the English medical staff on that fatal coast. The scheme was abandoned, because the expense to be incurred before they would be capable of acting as military surgeons was considered to be greater than the contemplated benefits warranted.

The Bury Board of Guardians.—An inquest has lately been held at Heywood, on the body of Edmund Wild, aged 71, deceased in the Bury workhouse. It appeared that the unfortunate old man had fractured the thigh-bone, and, having been admitted into the Bury workhouse, died there while under the care of Mr. Hinxman, one of the union-surgeons, from the effects of a bed-sore, the Board of Guardians having resolutely refused to supply either a

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water bed or one of Hooper's cushions. The clerk to the Board attended the inquest, with the view to throw the blame on the surgeon, charging that the man died, not from the want of the water-bed or cushion, but from injudicious treatment, the Board thus seeking to destroy the reputation of one of their officers in order to screen themselves. The jury, however, in their verdict, censured the Guardians for want of proper attention to the deceased, in not forwarding such means as, in the opinion of the medical officer, were considered essential for obviating, or endeavouring to make his disease less painful or fatal. We regret to add, that a similar affair has occurred at Southampton. In that instance, the deceased was a woman named Dinah Embury, suffering from liver disease. The Guardians refused her out-door relief, and the parish surgeon stated her death was hastened by destitution. The *post-mortem* examination showed that there was disease of the kidneys, as well as of the liver, and on this futile ground the Guardians sought to excuse their own inhumanity, by pleading the surgeon had mistaken the case, not having recognised the diseased condition of the kidneys, as well as that of the liver. They declared the woman died from unskilful treatment. The jury did not coincide in this view, but passed a vote of censure on the Guardians. It is a monstrous thing, that the Guardians should seek to make the ill-paid and ill-treated union-surgeon the scape-goat for their own offences.

GRATIFYING TESTIMONIAL.—It is pleasant to record the presentation of testimonials deservedly earned by years of patient toil and well-doing in the arduous duties of a country practitioner—a very different matter from those got up by private friends and for private purposes. Dr. Paul, of Elgin, a gentleman known to the Profession by several original publications, and in his neighbourhood as an eminent practitioner for the last thirty years, was requested to sit for his portrait, which, being finished, was lately presented to his family by a deputation composed of the magistrates and clergy of the town, on behalf of a numerous list of subscribers, as the unbought and spontaneous expression of gratitude for professional services, and respect for his long-tried character and conduct.

BIRKENHEAD COUNTY COURT.—MACDOUGAL *v.* MARTIN.—On Friday last a case was tried before J. W. Harden, Esq., involving points of material importance to the Medical Profession, as well as the public. The plaintiff was Mr. Macdougal, lately house surgeon to the Liverpool Workhouse and Fever Hospital, but now of the Infirmary and Hospital of Birkenhead, and Mr. Thomas Martin, pilot of boat No. 10, the defendant. The Court was crowded during the trial, which lasted nearly the whole of the day. Mr. Thorburne, barrister, conducted the plaintiff's case. Mr. Pemberton appeared for the defendant. The action was brought to enforce payment of a surgeon's bill arising out of attendance, &c., on the defendant's wife. It was proved that the deceased woman had laboured under a complication of afflictions. The patient had been attended by the plaintiff during her illness, and, aware of the danger she was in, had called in Mr. Dixon and Dr. Bickersteth, of Liverpool, for consultation. These gentlemen did all that their united skill and experience could devise, but it appeared that the mother of the deceased was dissatisfied, and dismissed the plaintiff and Mr. Dixon, after which she called in another surgeon, who attended her till her death, which took place in three or four days. The claim was resisted on the ground that the deceased had not been properly attended to. The plaintiff was also called upon to produce his diploma. Mr. Thorburne denounced the defence as more than vexatious. He objected to any man being called upon to produce his diploma, contending that it of itself was no evidence, and could not be judicially noticed, as it might have been stolen, or lent, or procured through the personation of another party undergoing examination before the College granting the certificate. A man's oath that he was duly qualified was evidence, but not the mere possession of a diploma. The handwriting of the examiners and the seal would require to be proved; also the identity of the person purporting to have received it. Mr. Pemberton contended for the production of the document, but the judge ruled that it was not evidence, and that the burden of disproof, that a plaintiff had not a diploma, lay upon the defendant. Considerable interest was manifested during the investigation, which was heightened by the repeated "scenes" which took place between the counsel—every inch of ground being disputed on matters of law and evidence. Mr. Dixon and Dr. Bickersteth had certified their approval of the treatment, but their documents to that effect were not received. Subsequently Mr. Dixon came into Court, and gave his evidence at great length. After hearing Mr. Thorburne's reply, His Honour said the case was so important that he should take time for consideration, and reserve judgment till next Court-day.

DEATHS *in the Metropolis for the week ending Saturday, Jan.* 18, 1851.

CAUSES OF DEATH.	Jan. 18. 0	15	60	All Ages.	Sum of Ten Weeks.
ALL CAUSES	457	330	216	1037	11485
SPECIFIED CAUSES	455	330	216	1002	11417
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases	145	37	14	196	2290
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat	5	14	17	36	557
3. Tubercular Diseases	61	108	3	172	1681
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses	73	25	39	137	1234
5. Diseases of the Heart and Blood-vessels	3	28	12	43	365
6. Diseases of the Lungs, and of the other Organs of Respiration	86	58	58	202	2549
7. Diseases of the Stomach, Liver, and other Organs of Digestion	27	27	11	66	629
8. Diseases of the Kidneys, &c.	...	10	8	18	100
9. Childbirth, Diseases of the Uterus	...	5	2	7	115
10. Rheumatism, Diseases of the Bones, Joints, &c.	2	5	1	8	62
11. Diseases of the Skin, Cellular Tissue, &c.	...	1	...	1	13
12. Malformations	1	...	...	1	23
13. Premature Birth and Debility	26	1	...	27	253
14. Atrophy	13	1	1	15	151
15. Age	...	...	46	46	333
16. Sudden	3	1	...	4	109
17. Violence, Privation, Cold, and Intemperance	10	9	4	23	247
Causes not Specified	2	...	...	35	68

1. Small-pox	21	Paralysis	21	Disease of Spleen	1
Measles	16	Delirium Tremens	2	8. Nephritis	...
Scarlatina	19	Chorea	1	Nephria or Bright's Disease	4
Hooping Cough	44	Epilepsy	9	Ischuria	1
Croup	7	Tetanus	1	Diabetes	1
Thrush	4	Insanity	3	Stone	1
Diarrhœa	15	Convulsions	60	Cystitis	1
Dysentery	1	Disease of Brain, &c.	17	Stricture of Urethra	1
Cholera	1	5. Pericardifis	4	Disease of Kidneys, &c.	9
Influenza	6	Aneurism	1	9. Paramenia	...
Purpura and Scurvy	...	Disease of Heart	38	Ovarian Dropsy	...
Ague	...	6. Laryngitis	2	Childbirth (see Metria)	4
Remittent Fever	4	Bronchitis	91	Disease of Uterus, &c.	3
Infantile Fever	1	Pleurisy	4	10. Arthritis	...
Typhus	35	Pneumonia	69	Rheumatism	4
Metria or Puerperal Fever	7	Asthma	21	Disease of Joints, &c.	4
Rheumatic Fever	1	Disease of Lungs, &c.	15	11. Carbuncle	1
Erysipelas	9	7. Teething	10	Phlegmon	...
Syphilis	4	Quinsey	1	Disease of Skin, &c.	...
Noma or Canker	1	Gastritis	1	17. Intemperance	3
Hydrophobia	...	Enteritis	11	Privation of Food	...
2. Hæmorrhage	4	Peritonitis	3	Want of Breast-milk	3
Dropsy	11	Ascites	3	Neglect	...
Abscess	2	Ulceration (of Intestines, &c.)	1	Cold	...
Ulcer	2	Hernia	2	Poison	1
Fistula	1	Ileus	2	Burns and Scalds	2
Mortification	3	Intussusception	1	Hanging, &c.	4
Cancer	13	Stricture of Intestinal Canal	1	Drowning	4
Gout	...	Disease of Stomach, &c.	3	Fractures	3
3. Scrofula	5	Disease of Pancreas	1	Wounds	...
Tabes Mesenterica	18	Hepatitis	5	Other Violence	...
Phthisis (or Consumption)	121	Jaundice	5	All Violence	17
Hydrocephalus	28	Disease of Liver	10		
4. Cephalitis	7				
Apoplexy	16				

BIRTHS AND DEATHS.

	Births.	Deaths.	Births over Deaths.
Males	815 } 1599	507 } 1037	308 } 562
Females	784 }	530 }	254 }

The Deaths in the several Districts are as follow :—

DISTRICTS.	Population in 1841.	Jan. 18, 1851.	Sum of Ten Weeks.
London	1948369	1037	11485
West	361189	134	1441
North	376568	218	2155
Central	374199	147	2144
East	393967	198	2449
South	505846	289	3096

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TO CORRESPONDENTS.

The Medical Directory.

With regard to the letter of Mr. Harvey in our last publication, we have since observed that the werks of that gentleman are given among the Errata of the volume. We have further to state, that the Proprietor of the "Directory," on discovering the omission, wished to cancel the sheet; unfortunately, however, the Editor thought the Erratum sufficient. Upon this subject we may at once say that our readers must not misunderstand us. Most anxious that the "Directory" should become a perfect medical annual, we desire to receive the communications of gentlemen whose names and qualifications have not been properly published, in order that the complaints may be brought immediately before the proprietor, and therefore corrected. Imperfect as this work is, we yet most conscientiously declare that it is the most useful annual that ever appeared, and indispensable to the library-table of every medical man.

[To the Editor of the Medical Times.]

Sir,—Having just received my copy of the "Medical Directory" for the present year, I found in the preface a boast of increased correctness! I refer to the London list for the name of a Dr. Batchelour, Finsbury-place North, and find his name with an asterisk, showing that he is an unqualified person. I then turn to p. 542, and find that Dr. W. Batchelour, M.D., of 2, Finsbury-place, is represented to be a duly qualified practitioner of homœopathy or hydropathy? Will the Editors be good enough to explain this by answering the following questions?—

1st. If Dr. Batchelour is qualified, why is he omitted at p. 11 in the Street-list altogether, and inserted at p. 42 as unqualified?

2nd If Dr. Batchelour is unqualified, why is he put at p. 542 as a duly-qualified M.D.?

3rd. Why is Dr. Batchelour put down as M.D. at all, when his University is not mentioned? and why do the Editors of the "Medical Ditectory" break their strict rule in his favour?

I am, &c.,

London, January 16, 1851. I Should Like to Know.

N.B. I have plenty of other queries respecting other unqualified persons.

[To the Editor of the Medical Times.]

Sir,—I live some short distance from London, and occasionally attend the Pathological Society. I cannot spare two nights in a week, and the "Directory" tells two tales. At page 239, I am told that the Society meets on the first and third *Monday* of the month; while, in the "Almanac," I find I must come to town on the evening of *Tuesday*, if I desire to be at the meetings. Pray, Sir, enlighten

A Constant Reader.

[The Pathological Society meets on the first and third Tuesday of the month.]

[To the Editor of the Medical Times.]

Sir,—To obtain perfection we must rebuke error.

Let me then briefly ask a few questions of the Editor of the "Medical Directory." I will confine myself to a few, though I might name Legion.

1. Have I dreamed that Henry Holland, Richard Bright, Southwood Smith, and Henry Herbert Southey were M.D.'s? or, can it be that these gentlemen put "Doctor" on their cards and door-plates with no other title to that University degree than being "licensed to practice" by the College of Physicians? 2. I have a book before me purporting to be written by "Henry Monro, M.B., Oxon, F.R.C.P.," and describing the Author as of "16, Queen-street, May-fair." Why does not this gentleman find a place in the "Medical Directory?" Is he supposed to be his own father, and to be, like Mr. Quain and Dr. Quain, "two single gentlemen rolled into one?" 3. I thought Dr. Richard Quain was the author of a paper on "Fatty Diseases of the Heart;" but, according to the "Directory," there are "two Richards in the field"—one of Keppell-street, one of Harley-street, and both given to Fatty Hearts. 4. By the way, why is not Dr. Quain named among the "Joint Editors of the Report of the Hospital for Consumption." 5. Again, I thought all the world knew Dr. Latham to be the President of the Pathological Society. The "Directory," however, declares the appointment "vacant."

6. Again, in the Provincial List, I find "Lees, H. Blandford, Dorset." Pray, who and what is he? Is he flesh, fish, or fowl? He cannot be one of those who "have not made a return of their qualifications," since he is not marked "with an asterisk."

I am, &c.,

X. Y. Z.

[To the Editor of the Medical Times.]

Sir,—It is of great importance that the Medical Profession should be able strictly to rely on all information contained in such a work as the "Medical Directory" professes to be; and it is really inexcusable that mistakes should occur in respect to information for which the Editor is not dependent on correspondence with any parties. I find that, according to the Calendar, the Lent Term of the Oxford University is correctly stated to begin on Jan. 14, but nowhere throughout the whole year does that term come to an end; and the same of the Lent Term of Cambridge University. I then pass to the Law terms, (for doctors sometimes go to law,) and here I find that the Editor has erred in just the contrary way,—that although the Easter Law Term *ends* on May 13, yet nowhere has it a *beginning*, and the Michaelmas Term also rejoices in a *sine initio*. When an Editor shows such skill at clipping tails of here, and decapitating there, one really loses all confidence in respect to any information he gives, especially when such things as the above may be found correctly stated in the meanest penny Almanac that is hawked about our streets.

I am, &c.,

Jan. 20, 1851. S. W.

[To the Editor of the Medical Times.]

Sir,—Turning over the pages of the "London and Provincial Directory," I was struck with astonishment at finding paraded a formidable list of homœopaths and hydropaths; and further, certain institutions of the same class, placed on an equality with the hospitals and dispensaries of the land. Pray, Sir, is it usual to retain in the clergy lists the perverts who have gone over to the Romish Church? I fancy not; and certainly when I put my name down as a subscriber to the "Directory," I did not expect to find its pages polluted with a list of men who ought to have been struck off the muster-roll and branded with the letter D.

The reason is clear: a few more copies are expected to be sold; but let the Editor beware. Hitherto the publication has been supported by the Profession, but, if intoxicated with success, he presumes upon our forbearance, he may depend on it that some rival will spring up and prove a thorn in his side.

I am, &c.,

Manchester, January, 1851. Delta.

[To the Editor of the Medical Times.]

Sir,—In an editorial addendum to a letter in the current number of the "Medical Times," from a gentleman who feels himself aggrieved by the omission of his literary contributions in the "Medical Directory," for 1851, you invite similar complaints from others. I have no doubt this invitation will be responded to by many, especially those against whose names has very properly been affixed an asterisk. But I would ask you whether it is discreet to publish the effusions of such correspondents, and thus risk the bringing into disrepute a work which is undoubtedly one of the bulwarks of the profession, distinguishing as it does the qualified from the unqualified practitioner. For my own part, I have looked carefully through the pages of the "Directory," and have been unable to detect a single error of any consequence, whilst on the contrary, I see indications on almost every page of the care and labour bestowed on its compilation, and I look for the names of numerous friends and invariably find them. To you, Sir, as an Editor, it must be invaluable, for not a day passes but you must have occasion to refer to its pages to ascertain *who is who* of your correspondents.

Be assured, Sir, that all duly-qualified practitioners are sincere well-wishers to the "Medical Directory," and regard it as a protector of their interests,—a formidable enemy to quacks, and a boon to the profession. Errors and omissions in a work of such magnitude are unavoidable; but I have myself discovered none but what are typographical. One of these is very amusing. In the errata, at p. xxxvi., we are told to read "M. B., Univ. London, 1858."

I believe the "Medical Times" to be distinguished for its liberality and love of fair play, on the principle of *audi alteram partem;* I have, therefore, ventured to raise a voice in favour of the "Medical Directory" of 1851.

I am, &c.,

January 20, 1851. Fair Play.

Advertising Medical Men.

[To the Editor of the Medical Times.]

"There be some who prize a crum of foreign praise above a lofe of honest English commendation."—Fuller's English Worthies.

Sir,—I send for your astonishment a volume of testimonials concerning Dr. H. Bennett, which the postman has delivered to me. They are addressed to the Committee of St. Mary's Hospital; but as I have not the honour to be one of the nine unfortunate gentlemen who constitute that body, I presume it must be as one of the public at large that I have received this circular. From this document I learn that no less than 147 gentlemen have volunteered their advice to the Committee to elect Dr. H. Bennett. Of these 7 reside in London; 8 in Edinburgh; 2 in Dublin; 29 in Liverpool; 12 in Newcastle; 12 in York; 23 in other country towns; 49 in France; and 5 in America. So that of the whole number, less than one-twentieth are accessible to a visit, or can expect to weigh more than as what is technically called "a written character." Most of these testimonials might be justly headed by the title given to his satire by the facetious German Reformer, and be classed as "*Epistolæ Obscurorum Virorum*," and of those names that we as medical men should recognise scarce any would be known to the members of the Committee. I trust this monster attempt to terrify weak minds by a display of pasteboard castles, put at a distance to look imposing, will make the testimonial-system so ridiculous as to complete its ruin. If Dr. Bennett is successful, it will surely be in spite of his testimonials, and not by means of them.

I am, &c., C.

[To the Editor of the Medical Times.]

Sir,—You have of course seen Dr. Henry Bennett's monster advertisement. I trust, as the unflinching and uncompromising denouncer of what is unbecoming the respectability and dignity of the Profession, you will notice that gentleman's conduct.

I am, &c., A. B. C.

St. Mary's Hospital.

[To the Editor of the Medical Times.]

Sir,—An article in your paper of yesterday on the "Election Committee" of St. Mary's Hospital is liable, I think, to be understood in a manner unfair to the gentlemen who compose it. The reader is led to conclude that the time passed, and to be passed, before they make their selection, is frittered away in careless postponements or unnecessary indecision. Now, I am myself a party whose position naturally would incline the mind to view matters in a light not the most favourable to those imitators of Fabius Cunctator. I am one personally and deeply concerned in their verdict; but I cannot, in justice, allow the impression which your article would convey, to be made on myself or others. I can bear testimony, on the evidence of my own observation, that the members of the Committee have been most actively engaged ever since the proposals were opened, in obtaining information best calculated to direct their judgment. They have been daily employed in obtaining oral proof of the professional and private characters of the candidates. They have been asking with much judgment the advice of those best capable of forming an opinion; and asking not only for advice, but for the reasons and grounds on which it is given. This is laborious and not very agreeable work, and when it has to be carried out in the case of nearly thirty candidates, cannot be got through in a day or a week. Neither can it be advanced by the panacea you propose of frequent Committee meetings; these, I conceive, would only retard the real business, by consuming in discussion the time which would be better spent in personal investigation. I am not personally acquainted with any member of the Committee, but the inquiries that I made about their characters before I sent in my proposals made me sure that they were men of honour and judgment, and that they possessed also that prime virtue in a judge, a high sense of responsibility. I am confirmed in my opinion by recent observation, and as long as I continue to hear of their going about with their lists in hand, canvassing the real merits of the candidates, instead of waiting at home for the candidates to canvass them, I shall not complain of the delay; I may add, too, that I shall not complain of their decision. I enclose my card to show you that I really am, what I sign myself,

January 20, 1851. A Candidate.

The Appointment at Cork.

[To the Editor of the Medical Times.]

Sir,—Not only the Practitioners of Cork, but the Profession at large should feel indebted for your excellent article in the "Times" of Saturday last, on the appointment of an unqualified person to the medical and surgical super-

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intendence of the sick at Haulbeline and Spike Islands. The fact of any man being placed in so responsible a position, without qualification, and that by a Government Board, could scarcely be credited in these days; and almost equally incredible is the fact of the supercilious treatment by the heads of the Ordnance Department, of the gentlemen who so spiritedly, and yet respectfully, remonstrated against the injustice of the proceeding both to the public service and the Profession. I would simply ask, if a pseudo-solicitor or a pseudo-barrister attempted to plead in a court of law, or had been appointed by the Government to a legal office, what would be the result? If a pseudo-clergyman were to take his place in a reading-desk or a pulpit, and attempt, unordained and unlicensed, to teach or to preach, what would be the consequences? I would further ask the Master-General of the Ordnance, whether, if "competent persons" certified that a man was perfect in the "goose-step," the "sword exercise," and could place a match to the touch-hole of a six-pounder, whether he would, on such a testimonial, give the individual, so qualified, the command of a company of artillery or engineers? I trow not; I cannot, therefore, see how the noble Marquis could put "in command" of the health and the treatment of the diseases of men as deserving of good medical care as any others under the control of the Department over which His Lordship presides,—into incompetent hands. It is well to find that the Medical Corporations are alive to the grievance, as the Secretary to the Cork meeting has received assurances from the Presidents and Secretaries of some of the leading licensing bodies, that the matter shall not rest, until redress be obtained. You shall have due notice of future movements in the affair, as a matter of courtesy, which you deserve for your uncompromising advocacy of the rights of the Profession.

I am, &c., MEDICUS.

Cork, January 18, 1851.

[To the Editor of the Medical Times.]

SIR,—You should be one of the first made acquainted with the fact of the Marquis of Anglesea *having cancelled the appointment of Mr. Weare* as Medical-Superintendent of Haulbolline, His Lordship having found, "on inquiry," that Mr. Weare possessed *no legal qualification!* This shortly conveys the substance of a letter received by the Secretary to the Cork Meeting, by this day's post, a copy of which you will, of course, have forwarded to you.

I am, &c.,

Cork, January 19, 1851. MEDICUS.

[We have received several letters on this subject. Let us at once thank our Correspondents for their kindly expressions. We have no greater object than the honour and respectability of the Profession.]

MEDICAL ETHICS.

[To the Editor of the Medical Times.]

SIR,—The "Liverpool and London Fire and Life Insurance Company" advertises in our papers a list of its local *Agents*.

In this list, associated with the names of land-agents, surveyors, registrars, druggists, &c. &c., appears as *Agent* at "Halifax," *not as Medical Referee*, "WM. ALEXANDER, M.D., Blackwall."

Would you, through your columns, oblige a General Agent by informing him, if such an encroachment upon the rights of agents is considered professional; *or*, rather, is it not derogatory to the professional calling of the Physician?

Your reply will be of service to us, as well as to your own Profession, and it will oblige,

Leeds, January 18, 1851. A LEEDS AGENT.

THE MEDICAL SOCIETY OF LONDON.

[To the Editor of the Medical Times.]

SIR,—I should feel obliged, if you would be kind enough to remind those witlings who attend the meetings of the Medical Society of London, that they show neither good sense nor good nature in giving utterance to horse-laughs, should an unfortunate speaker make use of a word *mal a propos*, or a subject be introduced, or remarks made, which a prurient mind may convert into something like obscenity. I have frequently been greatly annoyed, by finding on such occasions, members of the medical Profession, whom I presume to be gentlemen, giving way to what I suppose I must call convulsions of laughter, most frequently without the slightest provocation, greatly to the interruption of business. On Saturday, the 18th, this was especially the case. Pray you, Sir, remind them, that they should be not only gentlemen, but sober-minded ones, especially when discussing the causes and treatment of diseases by which their fellow-creatures are afflicted.

I am, &c., CHIRURGUS.

[This is not the first complaint that has been made to us of the doings of the Medical Society of London; and we now inform the Council that without they adopt measures to induce gentlemen to mend their manners, the exchequer in autumn session will, in all probability, seriously suffer.—ED.]

A Sufferer.—London abounds in dispensaries, also in surgeons who see patients gratuitously every morning. Our Correspondent can therefore be at no loss.

H. P., Maidstone.—Any bookseller will turn to the pages of his "London Catalogue," and obtain the information required.

T. W. B., Kidderminster, states, in reference to the case of branding with caustic, that the marks might be obliterated by simply rubbing into them a concentrated solution of iodide of potassium. His other remarks, as he will perceive, are now useless, the case having been finally disposed of.

Distressed Medical Man.—Subscriptions received:—

Z.	...	...	£0 10 0
J. S.	...	...	2 2 0
H. W.		...	0 10 0

Quere.—So many qualified medical men seek employment, and would thankfully receive it, that we feel assured no unqualified gentleman could obtain an appointment to render medical assistance in the West Indies.

The Memoir of Dr. John Reid.—In order to verify certain passages in the life of the late Dr. John Reid, we are compelled to delay our publication till next week.

Midas.—We do not believe it; and badly as we think of the man we would not wrong him. "Nec cita crediderís" was a maxim of Ovid; it is also ours.

A Medical Student must consult his books. We have no idea of answering trivial questions, and that to save a Medical Student trouble—a word he should not know; nor, in the present case, would it be expedient to do so.

THE Report of a "Clinical Lecture on Enirecyig in the Treatment of Certain Forms of Constipation" is very clever, but incompatible with the sober realities of our pages.

Mr. Double Dull is capable of far better things. If he will favour us with a call in *propriâ personâ*, we will shew him how he can employ his pen with benefit to himself and to others.

Aristarchus should have written himself *Zoilus*. We decline his communication. A spiteful pen picks out the vices of men, and leaves untouched their virtues, which, perhaps, may balance all their failings.

[To the Editor of the Medical Times.]

SIR,—I have designed, and have now in manufacture, a new Enema Syringe, to act upon an entirely different principle from Reid's or any existing one, and which can be used with much greater facility and comfort. Can you tell me whether I am too late for the Exhibition, the arrangements for which, I understand, were closed on December 31? I hope you will excuse the liberty I have taken, but I put this question to you as I perceive that you intend to print the designs of surgical instruments that may be exhibited.

I am, &c., G. R.

Our Correspondent should apply to the Local Committee of the district in which he resides; or communicate directly with the Secretaries of the General Committee in Palace-yard. We have no doubt, however, that as the instrument referred to would not occupy much space, room would be found for it in the Exhibition.

Medicus.—We have answered the letter to which you refer in a leading article. We agree with "Medicus" that it is desirable that medical services should be paid for, in all cases, by fees for attendance only, and that the charges for medicines should be discontinued. The letter of "Anti-Drench," however, proves the difficulty there would be in the attempt to establish such a system. The amount of remuneration must necessarily vary with the greater or less respectability of the patients; and a floating standard is, in reality, none at all. Practitioners would get as much as they were able, or, in other words, so much as the public considered their services to be worth. It is a very common thing in some neighbourhoods of London for consulting surgeons—the late Mr. Calloway, for example—to receive at home two visits from a patient for 10s., and to pay two visits out for 1l., which is half-price surgery. The general practitioners in such neighbourhoods reduce their charges in accordance with this scale of payment. The subject is one of very great difficulty. Organization is wanted.

X. Y. Z.—We cannot do it.

Richard J., Liverpool.—We advise our Correspondent to wait until the results of the meditated communication of the Committee of Poor-law Surgeons with Lord John Russell is known. We have seen the pamphlet, and read it with great care. The writer shows an acquaintance with the subject; but we are not prepared to recommend action upon his principles. Let our Correspondent wait a little. If the majority of Union surgeons should ever resign their appointments, as has been sometimes threatened, some good might be done.

[To the Editor of the Medical Times.]

SIR,—In the Fifth Vol. (New Series) of the "London Medical Gazette," p. 400, a quotation is given from observations of Mr. Curling, of the London Hospital, on the occurrence of inflammation and ulceration of the duodenum in connexion with burns and scalds. Can you inform me whether Mr. Curling has published any observations on this point, and if so, in what periodical or other work.

I am, &c., C. T.

OUR Correspondent will find the paper in question in the "Transactions of the Medico-Chirurgical Society," Vol. XXV. 1842.

Non Ingratus.—We are always happy to aid our young friends in any way, and especially when they exhibit so laudable a desire of self-improvement as our Correspondent. He will find one of Lindley's elementary works best adapted for his purpose of learning Botany; and if he is quite unacquainted with the subject, he should begin with the "School Botany." He had better leave the microscope alone at present. With regard to the second part of his letter, we have long desired to devote some portion of our journal to the use of those just entering the Profession; but, with the numerous calls upon us, we are afraid we can at present give them nothing but good advice.

COMMUNICATIONS have been received from NON-INGRATUS; Mr. TAYLOR, of Bethel-place; C. T.; I-SHOULD-LIKE-TO-KNOW; Professor MORTON, of the Royal Veterinary College; A CANDIDATE; DOUBLE DULL; Dr. LETHEBY, of the London Hospital; MIDAS; A MEDICAL STUDENT; ARISTARCHUS; A CONSTANT READER; C.; A SUFFERER; MEDICUS; FAIR PLAY; THE CONTRACTORS FOR THE OFFICIAL CATALOGUE OF THE GREAT EXHIBITION; DELTA; A LEEDS AGENT; S. W.; H. P., Maidstone; T. W. B., Kidderminster; Dr. MACKENZIE, of the Royal Infirmary, Edinburgh; QUERO; Dr. SHIRLEY PALMER; G. R.; A GENERAL PRACTITIONER; MEDICUS; R. T.; X. Y. Z.; RICHARD J., Liverpool; A CORK PRACTITIONER; AN ARMY SURGEON; AN ARTILLERY SURGEON; PADDY; A. B. C., of Maidstone; Dr. R. S. MAIR, Crieff; C.; and Dr. PALMER, Tamworth.

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ORIGINAL LECTURES.

CLINICAL LECTURE ON SURGERY,

AT

ST. BARTHOLOMEW'S HOSPITAL.

By E. A. LLOYD, Esq.

ON THE TREATMENT OF CERTAIN CASES OF HARE-LIP.

Gentlemen, — The subject of my present lecture, is the treatment of that congenital deformity, known by the name of hare-lip; and my chief object to day will be to draw your attention to the means I employ to overcome difficulties which are met with in some of the more complicated cases; and, for this purpose, I will relate to you two cases that have been cured by a mode of operation differing, as you will perceive, from the course usually adopted in this hospital. I will then make a few observations bearing on the general treatment of this deformity.

The first case I shall relate, is that of a child who was in Treasurer's Ward some months ago; but, as I have unfortunately not been able to obtain the written particulars of the case, I must narrate the principle facts, as well as I can, from recollection.

CASE OF HARE-LIP, WITH A LARGE PORTION OF THE SUPERIOR MAXILLARY BONE PROJECTING THROUGH THE FISSURE, CURED BY OPERATION.

The child, Eliza Fisher, was admitted, in Sept., 1849, during the time I was absent from town, and when Mr. Paget was attending to my patients in the hospital. On my return she was handed over to me in a most emaciated state, perfectly pallid, and with patches of Eczema impetiginodes on different parts of the face and body, with diarrhœa, very little appetite, and altogether in such a miserable state that no one would have been justified in performing any surgical operation at that time.

A large portion of the superior maxillary bone was projecting through the cleft of the lip; not perpendicularly in the natural position of the bone, but turned upwards and forwards, and projecting horizontally, in a direction nearly at right angles with the normal position of the teeth. The fissure extended through both hard and soft palate. The state of the child's health was at that time so bad, that it was little expected there would ever be an opportunity of performing an operation. But, in a short time, by the employment of appropriate medicines, the diarrhœa was checked, the condition of the stomach improved, the appetite increased, and the cutaneous disease subsided. The cod-liver oil was then freely administered, and, in a few weeks, the health of the child was so far improved, and it gained so much flesh and strength, that it was considered means might be commenced to obviate the deformity without any risk. Before uniting the fissure in the lip, it was necessary to get rid of or change the position of the projecting piece of the superior maxillary bone. The practice in this hospital has hitherto been to cut off the projecting part; but this plan leaves a gap in front of the bone which is never filled up, and which remains a deformity for the whole of a patient's life, and interferes materially with the power of articulation.

In order to obviate this inconvenience, it was attempted to push the portion of bone back into its proper place, by keeping continual pressure on it by means of a pad. This plan was tried for several weeks, but it failed entirely. I then determined to forcibly break down the piece of bone with a strong pair of forceps, to bend it into the gap, and leave it to become fixed there. This was easily accomplished, the soft parts having been previously divided. A small compress of lint was placed over the part so as to confine the bone in its new position, and kept in its situation by means of adhesive plaster.

No bad symptom whatever followed this operation, and the piece of bone was easily retained in its new place, and in about a fortnight it became firmly fixed there. By this means the gap in the superior maxillary bone was entirely filled up. The ordinary operation for hare-lip was now performed; viz., the edges of the fissure in the lip were pared, and the two even surfaces were brought together in the usual way with hare-lip pins.

There was some considerable difficulty, however, in doing this, for the nose was twisted; also one side of the fissure in the lip was much longer than the other; so that, in order to adjust the edges properly, it was necessary to pare the edge of the shorter side of the fissure in such a manner as to make the raw surface of a convex form; thus leaving a surface on the shorter side of sufficient length to unite to the whole of the longer edge of the fissure.

The uppermost hare-lip pin was discharged by ulceration on the third day, which resulted from the great force required to bring the parts into contact at the time of the operation; and in consequence of this a small aperture was left.

The other pin was allowed to remain two or three days longer; and when it was removed the two raw surfaces were found to have firmly united below, but the aperture left by the ulcerating out of the upper pin still remained. The edges of this aperture having healed, it became necessary to detach the cuticle from them, and then bring them into contact as in the first operation.

I have always found that strong liquor potassæ is the best caustic to apply in these cases, for the purpose of detaching the cuticle; and in this case it was applied. The two raw surfaces were kept in contact by means of a long strap of adhesive plaster passed all round the head and above the ears, the two ends being crossed over the wound in front.

It is necessary to pass the plaster all round the head, otherwise it will frequently slip, and thus fail in keeping the two sides of the cleft in continual contact with each other.

I have never known this plan of treatment fail in any case. In a few days, the aperture was perfectly closed, and the child left the hospital, not only cured of its unsightly deformity, but likewise in the enjoyment of a good state of health.

Ol. jecoris aselli was continued with marked benefit during the whole of the time.

The next case I will relate to you was certainly the most unsightly instance of this deformity I ever met with, and one in which the plan of breaking down the projecting piece of bone, instead of cutting it off, was perfectly successful; and a most satisfactory cure was the result.

CASE OF DOUBLE HARE-LIP, WITH THE CENTRAL PORTION OF THE SUPERIOR MAXILLARY BONE SO ELEVATED AS TO MAKE A RIGHT ANGLE WITH THE REST OF THE JAW, CURED BY OPERATION, WITHOUT CUTTING OFF THE BONE.

In this case, which came under my care at the hospital a few months ago, a portion of the superior maxillary bone, about half an inch in breadth, with a portion of the lip attached to it, was projecting upwards and forwards, at right angles from the natural position of the bone, carrying with it the septum nasi, and thus elevating the nose in an extraordinary way, the alæ nasi being at the same time widely spread out.

This elevation of so large a portion of the front of the face, caused a deformity so hideous that the "human face divine" was scarcely recognizable. So dreadful, indeed, was this deformity, that to remedy it by any operation was almost despaired of.

But I determined to make the attempt, even in this case, feeling assured that all cases of hare-lip, however bad they may be, can always be considerably relieved by operation.

I therefore strongly advise you to operate in all cases that may be placed under your care.

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This child was also in a most emaciated state; it was brought up entirely by hand; the nature of the deformity rendering it impossible for the child to take any of its food in the natural way.

As the means most likely to afford support and strength to the infant, cod-liver oil was given at first, in doses of one drachm, three times a day; but it was, after a week, increased to two drachms. This having been continued for three weeks, the child's health was so much improved, that I determined to break down the projecting piece of bone.

I should tell you that, during the whole of this time, Mr. Ayre, one of my dressers, on whose diligence and attention I can most implicitly rely, had attempted, by slight pressure continually applied, to press down the projecting piece of bone; but this was of no more use than in the case I have just related to you. I first dissected up the central portion of lip from the projecting piece of the bone, and then, with a strong pair of forceps, broke the bone, and forced it down into the gap. After this was accomplished, a pledget of lint was placed on the broken piece, and confined there by means of sticking-plaster carried round the head and face, so as to prevent the bone from again projecting, having previously raised up the piece of lip which I had detached.

The bone having, in a few weeks' time, become firm in this position, I operated on one side of the lip, in the usual way, and brought the edges together by one common suture and one hare-lip pin. There was not room for two pins.

This operation was quite successful, and in about three weeks I determined to operate on the other side. Here a difficulty presented itself, the edge of the fissure on one side being much longer than that of the other, the shorter side being that of the central portion of the lip. The pairing, therefore, of this edge was carried to a certain distance round the lower extremity. By this means the two raw edges were made of the same length, and brought accurately into apposition.

The edges of the cleft readily united, and the patient is now quite recovered, and, instead of being a hideous object, is now a really good-looking child. The nose, too, which was flattened at first, is at present much more prominent.

The child will be brought to the consulting-room to-morrow, when you may have an opportunity of judging for yourselves of the success of the operation.

I never saw so much projection of the bone as in this case.

In cases of very young children, I recommend you always to try pressure for some time when the bone is projecting. It may not unfrequently be reduced by that means, and, in proof of this, I could, if it were necessary, adduce many cases.

On no account cut off the projecting piece, for, although the highest authorities have recommended that practice, I feel convinced that it is quite unnecessary, and that by so doing you will render the articulation of the patient imperfect for his whole life-time; and, in many instances, much deformity will result from the falling in of the lip, there being no support for it.

Although, indeed, by the removal of the part, you accomplish your object in one operation, that slight advantage should not be considered, when the patient's comfort for life is at stake.

We frequently see persons who have been operated on for hare-lip, with a small V-shaped cleft remaining at the bottom, when the paired edges have not united. This, I imagine, arises from the parts retracting below the lower needle, and not being kept in contact long enough to enable them to unite. I therefore advise you, in order to obviate this, in all simple cases of hare-lip to make both the raw surfaces of a concave shape; and by this means you will leave a sufficient quantity below the lower needle to allow for a certain degree of retraction, without a gap in the margin being left. This mode of proceeding I have followed in the hospital for many years.

There is another plan which I have also sometimes adopted to prevent a notch remaining in the lower margin of the lip. I leave portions of what I alice from the edges of the fissure attached to the inferior angles of the fissure; turn them down with these raw surfaces opposed to each other, and confine them in that situation. By this proceeding, instead of a notch being left, the central portion of the margin of the lip may be made to project. It is many years since I first had recourse to this proceeding.

Sometimes the edges of the fissure are so far apart that it requires great force to bring them together, and in these cases they will not readily unite. It is, therefore, necessary to separate the parts very freely, and far back on either side; and I have met with cases in which the deficiency of lip has been so great, that there was no possibility of keeping the edges of the fissure sufficiently in contact without making a perpendicular incision on each side of the lip, commencing at the outer side of each of the alæ nasi. By this means, you will always be enabled to bring the edges so easily together that they will readily unite. The incision should not be carried through the membrane of the mouth, but merely through the common integument and muscles. It will sometimes suffice to make an incision on one side only. This cut generally heals readily, and little or no mark remains.

When the surfaces have not united, although the pins have been taken out, or have been discharged by ulceration, the edges may be readily kept in contact by a long narrow piece of plaster, bound round the head in the way I have described.

Bandages of various kinds have been recommended for this purpose, and were formerly much used in this hospital; but I think the plaster a far more certain application, as it is less likely to slip, and is much more easily applied.

The coronary artery will sometimes bleed very freely, but it should never be tied, for the presence of a ligature would necessarily impede the healing process, and thus render the cure more tardy. But it is of course of great importance to lose as little blood as possible in all operations on children. I therefore always pass the pins through the two sides of the lip as quickly as possible, and then draw the parts together by the twisted suture, without wasting any time in trying to stop the bleeding, for that will always cease when the parts are thus brought together.

With regard to the age at which this operation is best performed, there has been great difference of opinion; but, as far as my experience goes, (and I have operated as early as three weeks and as late as the twenty-first year,) I do not think, in simple cases, it makes much difference. In the more complicated cases, the operation should always be performed at the earliest period.

I should, however, avoid, as far as possible, the period between six months and two years, because dentition is then going on. As a general rule, I think that the earlier you operate the better; for the most successful case I ever had was in a child, as stated above, only three weeks old.

There are many other points of interest connected with the treatment of complicated cases of hare-lip which it might be desirable to bring before your notice, but my time will not allow me to do so on this occasion.

LECTURES ON HISTOLOGY.

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS, LONDON,

By J. T. QUEKETT, Esq.,

Assistant-Conservator of the Hunterian Museum.

(Continued from page 60.)

STARCH.

In the Euphorbiaceous plants, the starch granules have a peculiar form and situation, since they are found in the interior of the laticiferous vessels, floating in the latex, or milky juice, and their shape is that of an elongated dumb-bell or two-headed club, as shown at *a* in *Fig.* 9 A. I now pinch off a spine of this plant, the *euphorbia splendens*—a considerable quantity of a milky juice exudes, of which I place a drop in the field of the microscope, and pass it round for your inspection. You will observe the floating double-club shaped starch grains in tolerable abundance. When iodine is added, they immediately turn blue—proving them to be of the same nature as the other starches. Three of the laticiferous vessels, each containing many starch-grains, are represented at *b* in *Fig.* 9 A.

Before leaving the subject of starch, allusion may well be made to the recently prevalent and destructive epidemic among the potatoes, which I believe to have been a disease of the tuber, not of the haulm or leaves. Examined in an early stage, such potatoes are found to be composed of cells of the usual size, but they contain little or no starch; and

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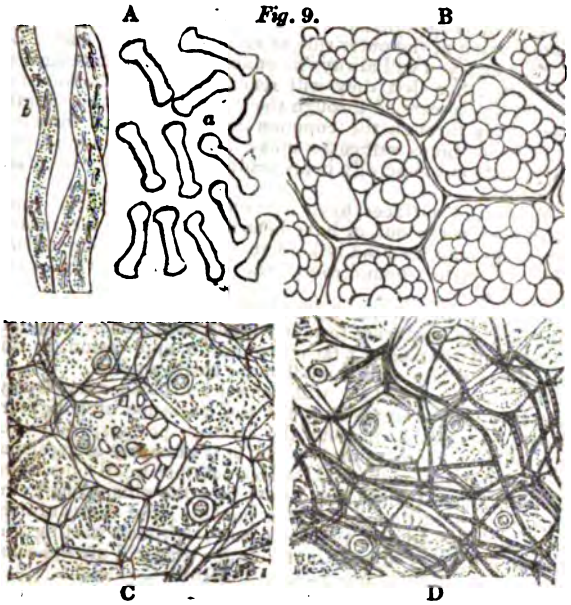
hence it may be inferred, that the natural nutriment of the plant being deficient, the haulm dies, the cells of the tuber soon turn black and decompose, and fungi are developed, as

Fig. 9.



in most other examples of decaying vegetable matter. I will now prepare and submit to your inspection a portion of healthy potato, which, as shown in *Fig.* 9 B, consists of a series of more or less hexagonal cells, full of granules of starch of different sizes, the granules, when highly magnified, exhibiting the peculiar markings represented in *Fig.* 8 *d*. I will now exhibit a specimen of diseased potato. In this, as shown in *Fig.* 9 C, it will be noticed, that nearly every cell is without starch-grains, their place being taken by numerous minute granules of a brown colour. In many of the cells a large circular nucleus or cytoblast is present. In other parts of the same potato in which the disease is further advanced, not only is the starch absent, but a moniliform fungus, as shown in *Fig.* 9 D, occupies many of the cells and threads its way between others. In this section, the parts containing most of the brown granules also exhibit the greatest number of fungi.

The next and one of the most common of all the cell-contents is known as *chlorophylle*. It has been before alluded to as being the cause of the green colour of plants, and is found in all those growing in the light.

By some it is called green vegetable wax; it is soluble in alcohol and ether, but is not acted on by water. It forms a thin coating to the granules found in the interior of cells, some of which are said to be composed of mucilage, and others of starch, as is proved by their being rendered blue by iodine. While showing you these chlorophylle granules, I shall be able to illustrate and exhibit one of the most remarkable phenomena occurring in vegetable cells, viz., the circulation of their contents, or, as it is usually termed, *cyclosis*, the specimens selected for this purpose being either transparent water-plants, such as the various species of chara, nitella, and vallisneria, or the hairs of the groundsel and tradescantia.

The *nitella* consists of cylindrical cells, in most of which you may observe a movement of granules; they pass up on one side of the cell and down the other, but never escape into adjoining cells; the circulation may, however, be more plainly seen in the *vallisneria*; a thin layer of one of the flattened leaves of this plant will exhibit a series of oblong cells, as shown in Fig. 10 B, in each of which an active circulatory movement of the green granules may be noticed; among the granules may be discerned one larger and more transparent than the rest: this is the nucleus of the cell or cytoblast.

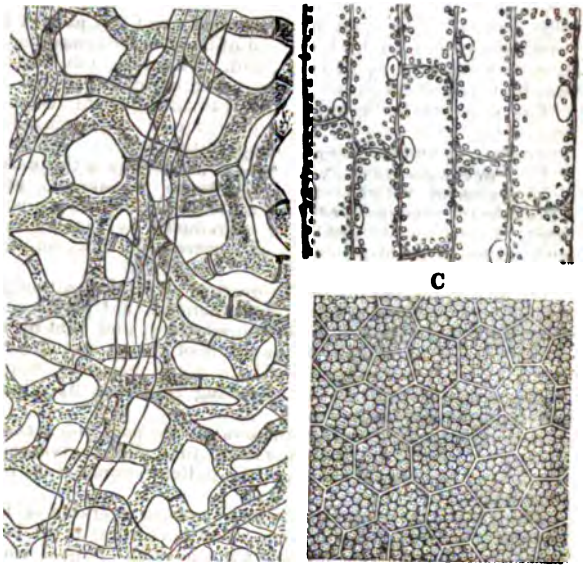
I shall now proceed to describe very briefly some of the other contents of cells, such as milks, oils, resins, &c. &c., all of which are so important to mankind, some being used as food, others largely in the arts.

Milks.—These are true secretions, and are found in many plants, being contained in distinct vessels called milk or laticiferous ducts, which are formed by the union of elongated cells, and, unlike other vessels found in vegetables, they frequently subdivide and branch. The dandelion contains a large quantity of this juice, and so also do the various species of ficus; the Indian-rubber of ordinary use is the concrete milky juice of the ficus elastica.

Gutta percha is much the same kind of substance as Indian-rubber, except that its juice contains a larger quantity of starch. As this material is now coming into such general use, it may not be out of place to give you the derivation of its name, as I have never yet seen it correctly stated in books. On referring to a map of Asia, you may observe that the Island of Sumatra presents a ragged outline. The Malay name for this island is Pulo-Percha, "pulo" meaning "island," and "percha," "ragged." "Gutta" is the Malay term for gum, hence this substance received the name of "gutta pulo percha," or gum from the ragged island. It has, however, become the custom of late years to omit the word "pulo," as in the case of Penang, which was formerly called Pulo Penang, and thus this substance has received the name of gutta percha.

Our countryman, Nehemiah Grew, was not only aware of the presence of milks in plants, but, in his anatomy, speaks of many which "bleed a lympha." He even gives drawings of the vessels which contain it, but does not appear to have been cognizant of their branched character. These vessels, which have been particularly investigated by Schultz, were by him supposed to exhibit a circulation; but, it has been found, by subsequent examination, that the circulatory movement is due to the contraction of the vessels themselves, which always have a tendency to get rid of their contents when divided or torn.

Fig. 10.



I will now show you a portion of a stipule of the ficus elastica or Indian-rubber plant, in which, as shown in *Fig.* 10 A, you will observe a layer of branching milk vessels, all having granular matter in their interior. In another specimen taken from the dandelion, the milk vessels will be readily recognised by their frequent bifurcations, and by their contents having been turned of a brown colour by the liquid used to preserve them.

Oils likewise fixed or fatty, are found as contents of cells; they are highly nutritious, and are mostly met with in the seeds of plants, in which they serve the purpose of nourishing the embryo, until the development of the radicle and plumule has provided organs capable of deriving sustenance from other sources; thus, in the cocoa-nut, the cells contain a concrete oil, which being extracted by pressure, is an article of considerable commercial importance, being much used for combustion in lamps, and for the manufacture of candles; here is a specimen of the oil, and in this preparation from the Museum, you see a cocoa-nut in which germination has commenced and made considerable progress; the nut itself

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has become loosened from the shell, and somewhat shrivelled, in consequence of the abstraction of nutriment from it for the purposes of the growing embryo. It is somewhat difficult to demonstrate the oils in situ in the cellular tissue, since the section almost necessarily allows the escape of the oil; but, in some parts of the cocoa-nut this is concrete, and we have a better chance of displaying it in the cells. Some of these are represented in *Fig.* 10 C. The oily matter consists of minute spherical globules, which are so closely packed as to give the section a black appearance.

The presence of oily matters in vegetable cells was known, and even depicted by Leeuwenhoek, as you may see in the 2nd vol. of his works.

I here exhibit a mass of the nuts from which palm oil is obtained, and also a specimen of the oil itself, which you observe resembles fat rather than oil, and is used by the natives of the western coast of Africa as butter: it is now extensively employed here in the manufacture of candles, and likewise on the railroads, for the purpose of greasing the wheels of the carriages, it being found necessary, however, to make a large addition of sulphur, to prevent its melting with too great rapidity. This oil is contained in the cotyledons of the seeds before you, whence it is extracted by heat and pressure; it consists of elaine and stearine, in pretty equal proportions. Being submitted to a high degree of pressure, by means of the hydraulic press, the former is separated, and the remaining stearine, after being bleached, is made into candles, of which I show you an example. This is the principle of Price's patent process. Human fat is capable of being thus separated by pressure into a solid and fluid portion; but in this case the more solid principle is margarine instead of stearine. In both cases, viz., in animals and vegetables, the oil or fat is produced by and stored up in the interior of truly closed cells.

Castor oil is another example of these vegetable fats, as also that extracted from the seeds of croton tiglium, both of which are so well known to you; but I now show you another specimen of oil, which is expressed from these nuts of a species of jatropha. This oil burns exceedingly well in lamps, and gives a steady white light. It is manufactured in Bristol by Messrs. Visger and Miller, and sells at 4s. per gallon; it is, however, of a poisonous nature, and cannot be even tasted with impunity. A bag of the nuts having given way on the quay at Bristol, a great many children fell to picking them up and devouring them, and in a short time numbers of them were taken into the infirmary with symptoms of irritant poisoning. Some of them suffered severely; others less so; but I believe no fatal result ensued in any case. A gentleman, likewise, well skilled in the properties of oils, imprudently dipped his finger into a specimen of it which I was showing him, and carried it to his mouth, in order to judge of its quality; he was rendered uncomfortably ill for two or three days.

Nor is it in the animal and vegetable kingdoms alone that we meet with oil, since it has been obtained from the mineral kingdom also. I here show you a specimen derived from bitumen; it is of a dark colour, somewhat resembling brandy, but burns exceedingly well in lamps. Through the kindness of my friend, Captain Trotter, I have the opportunity of showing you a candle manufactured from the peat of an Irish bog, by Mr. Owen; it is composed of a wax-like substance termed paraffine. Peat appears to be capable of conversion into a great variety of useful products, many of which are at this time gaining much of the attention of practical men.

Volatile Oils.—These are also secreted in cells, which, from their peculiarities of shape and situation, have received the names of vesicles, vittæ, glands, &c. They occur on the surface or in the interior of leaves, and in the pericarp of fruits. They are not nutritious, are soluble in alcohol, but not in water. The volatile oil situated in the rind of the lemon and orange, is well known to you, and connoisseurs in punch are well aware, that by rubbing a lump of sugar over the outer surface of the lemon, the sugar absorbs the essential oil, and thus imparts a fine flavour to the liquor; the sugar being rough acts the part of a grater, rupturing the cells in which the oil is contained, and allowing it to escape.

Many of these essential oils, when evaporated, yield a resinous substance. This may be sometimes seen on the outside of plants yielding a perfume. There is a striking example of this in the seeds of the common lavender, which, when examined as an opaque object, presents rows of little globular bodies of high refractive power situated in the furrows of the seed. If it be dipped in alcohol, the resinous matter will be immediately dissolved.

Camphor is a kind of volatile oil, but solid at ordinary temperatures. Here is a piece of the Laurus camphora, which yields the camphor of commerce, and in the cracks and fissures with which it is marked you see masses of the solid volatile oil deposited. This specimen belonged to Hunter, and is, therefore, of no very recent date.

Gum is another very nutritious substance, formed originally in cells, but subsequently separated from the plant as an excretion. The purest form of gum is that known as the gum acaciæ. This is very soluble in cold water; but another form, known as gum tragacanth, is most insoluble in the same menstruum.

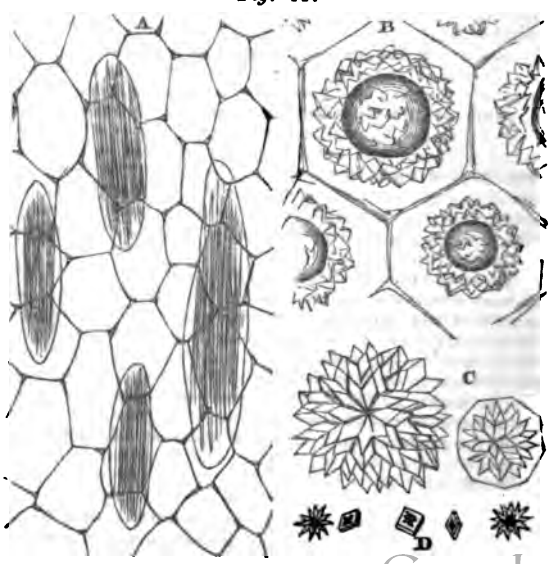
Wax and Tallow are also found in plants, the former in large quantities on the outside of the wax palm, ceroxylon andicola; the bloom of the plum and the grape are also examples of this substance.

Resins abound in some plants, especially in the coniferous species; they are not unfrequently contained in large reservoirs, termed turpentine vessels. When that from the common pine is distilled, turpentine comes over, and the residue is known as the "black" or "fiddler's resin." If, however, water is added prior to the distillation, the residuum is the white resin of commerce.

Canada balsam, now so largely used for mounting microscopic objects, is an example of a liquid resin.

Raphides.—Besides the various contents of cells which have already occupied our attention, there are certain mineral substances commonly found in them in the form of crystals. These were first noticed by Malpighi, in Opuntia; they were subsequently described by Jurine and Raspail. They occur principally in two forms—either in stellate masses, as shown in *Fig.* 11, B C, or in bundles of sharp-pointed crystals, very much resembling needles, as in *Fig.* 11, A. It is these last which have obtained for themselves and their fellows the general name of raphides, from the Greek Ραφις a needle. They are also not unfrequently found as single crystals, in the form of octohedra, rhombohedra, rectangular, and oblique prisms. According to Raspail, the needle-shaped, or acicular, are composed of phosphate, and the stellate of oxalate of lime. There are others having lime as a base combined with tartaric, malic, or citric acid. These are easily destroyed by acetic acid; they are also very soluble in many of the fluids employed in the conservation of objects. Some of them are as large as 1-40th of an inch, others as small as 1-1000th.; they occur in all parts of the plant, in the stem, bark, leaves, stipules, sepals, petals, fruit, root, spiral vessels, and even in the pollen. They are always situated in cells, and not as has been stated, by Raspail and others, in the intercellular passages. Some of the containing cells become much elongated, but still the cell wall can readily be traced.

Fig. 11.



I now send round a thin section of an aloe, *Aloe verrucosa*,

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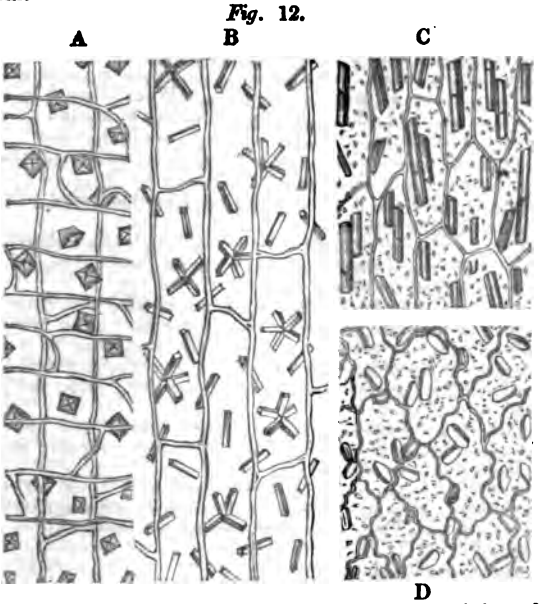
in which, even with the naked eye, you will be able to discern small silky filaments; these, when magnified, are found to be bundles of the acicular form of raphides. I also show you a portion of the cuticle of the medicinal squill, *Scilla maritima*, in which you may observe several large cells, full of bundles of needle-shaped crystals; these cells, as shown in *Fig.* 11, A, do not lie on the same plane as the smaller ones belonging to the cuticle.

I now show you a portion of the cuticle of an onion, *Fig.* 12, A, every cell of which is occupied either by an octohedral or a prismatic crystal of oxalate of lime; in this specimen the octohedral form predominates; but in the next, *Fig.* 12, B, from the same plant, the crystals are principally prismatic, and are beginning to assume a stellate form.

Fig. 12.



Those of you who are in the habit of examining the deposits from urine, must be familiar with the appearance of the crystals of oxalate of lime, and will readily recognize their close resemblance to these in the cells of the onion. I have also met with them in the urine, contained in the interior of cells, so that, both in the animal and vegetable kingdoms, we have crystals of oxalate of lime as a product of cell secretion.

[To be continued.]

ORIGINAL COMMUNICATIONS.

ON DISPLACEMENT OF THE OVARY.

By EDWARD RIGBY, M.D., &c.;

Senior Physician to the General Lying-in Hospital; Examiner in Midwifery in the University of London.

I propose to lay before your readers another case of that displaced condition of the ovary which I have ventured to call prolapsus of this organ. The affection is by no means a common one; and being, as far as I have had the opportunity of observing, invariably accompanied by the severest sufferings, I trust I shall be excused for again referring to this subject. The present case was drawn up by my friend Mr. Renwick, and is therefore the more valuable, in a hitherto undescribed affection like the present, from being confirmed by the additional testimony of another individual, whom I believe to be a not less unbiassed than competent witness.

Mrs. B., aged 27; married seven years; never pregnant; of middling size; brunette.

July 28, 1850.—Is suffering from intense pain round the lower part of abdomen, with a sensation of throbbing over the region of the uterus. She has also pain in the right groin, passing into the thigh, which is relieved by bending the thigh upon the body; but her greatest suffering arises from an agonising dragging in the rectum, with constant desire to evacuate the bowel, without any relief. The bowels have not been open for four days, previous to which they had been moved by medicine, causing at the time excruciating pain. She is at present in such suffering, especially in the rectum, that she can only sit on one side, and can find no permanently easy position. Is pale and faint, with a furred tongue; has had sleepless nights; the urine is passed with pain and difficulty, and only in small quantities at a time.

A week ago she lifted a heavy weight, immediately after which she felt as "if her back were broken," although she was not prevented from walking about; but her uneasiness and suffering increased up to the present condition.

Examination per Vaginam.—Uterus low in the pelvis. Cervix swollen and forward. Directly behind is felt a tumour, like the fundus uteri when very much retroflected. Dr. Rigby, however, ascertained by introducing the sound, that the uterus was in its natural direction, and therefore concluded, by the somewhat flattened form of the tumour, and sickening pain produced on touching it, that it was a prolapsed ovary.

℞ Hydrarg. chloridi gr. v.; pulv. opii gr. i. statim.

℞ Haust. rhœi in two hours afterwards. Poppy fomentations and hip-bath, and to use the position upon her knees and elbows as much as possible.

July 29.—Much relieved: the bowels have been slightly moved; she has had some sleep, and is free from pain, except on moving. She persevered in the extreme prone position (viz., on her knees and elbows) as much as she could, until

August 3, when Mr. Renwick examined. The uterus was still low; the tumour was behind it, although decidedly higher up, and much less tender. The uterine sound passed easily in the right direction; and, on raising the uterus with it, he felt convinced that the ovary was also raised a little higher.

Pil. hydrarg. extr. coloc. co. aa. gr. v. h. s. p. r. n. Haustus rhæi primo mane p. r. sc.

August 6.—Has improved greatly; the catamenia have come on; they were preceded by pain, but with no clots or shreds, and has felt very much relieved since.

August 21.—Has called to say that she is much better, and has continued steadily to improve since last report; feels no pain; even when the bowels are moved she has scarcely any. She merely complains of a languid, heavy sensation, with a feeling of distension in the abdomen; does not sleep well, nor has she much appetite; tongue pale, pulse weak, looks anæmic. Has been persevering in using the extreme prone position, (knees and elbows,) not that she requires to do so any longer for relief, but simply as a precaution. Has been taking no medicine, except the pills last ordered, which have been scarcely sufficient, without the assistance of an enema every other morning. Is going into the country.

℞ Acidi hydrochlor. acid. nitric. dil. aa. ʒi.; liq. taraxaci ʒi.; infusi gentianæ co. ʒvij. M. ft. mistura cujus sumat cochl. magna ij. bis die.

℞ Extr. aloes aquosi ℈ij; extr. hyoscyami ℈iss.; mastiches gr. xij. M. ft. pil. xx. sumat i—ij. h. s. p. r. n.

The attack in this case appears to have been brought on by over-exerting herself in trying to lift a heavy weight, when she instantly became conscious of pain, which gradually increased up to the intensity of suffering above described. Constipation, as is usually the case, seems to have acted more or less as a predisposing cause. The painful sense of dragging or pressure about the rectum, the constant but fruitless desire to evacuate the bowel, the intense agony produced by the passage of fæces, are the more distinctive and peculiar features of this displacement; other symptoms, equally distressing but less diagnostic, are also deserving of notice, viz., the pain on sitting down, except so as to rest entirely on one tuber ischii, and thus, as far as possible, remove the pressure from the perineum, anus, and coccyx; the severe pain round the lower part of the abdomen, sensation of throbbing in the pelvis, and great irritability of the bladder.

The pain in the right groin may reasonably be attributed to the severe tension to which the attachments of the broad ligament on that side were exposed by the detrusion of the ovary, and we may thus also explain the relief which she experienced on bending the right thigh upon the trunk.

Considering the urgent nature of her symptoms, and the general suffering and irritation of the whole system, especially the abdominal viscera, Mr. Renwick was fully justified

in prescribing the dose of calomel and opium and other medicines. As all attempts to raise the congested ovary were perfectly out of the question, not only on account of the agony they would have caused, but also on account of the injury which any degree of pressure would probably have produced, she was directed to place herself on the knees and elbows, and thus not only relieve the pelvic viscera from the pressure of the superincumbent intestines, but, by thus altering the direction of their weight, to raise them as far as possible towards the upper parts of the pelvis. She persevered in this position, however inconvenient, to a very considerable extent, for she soon found that it brought great relief to her sufferings. I am justified in pointing out the effects of this position as a striking confirmation of the diagnosis of the displacement; for, as the late Dr. Gooch well observed, "the effects of remedies on a disease, if accurately observed, form the most important part of its history; they are like chemical tests, frequently detecting important differences in objects which previously appeared exactly similar." A further confirmation was gained by Mr. Renwick gently raising the uterus by means of the uterine sound, and satisfying himself that by so doing he had slightly raised the detruded ovary behind it.

The treatment was simple; it consisted in regulating the bowels, and in removing the weight of them from the pelvic viscera by the prone posture, and thereby disposing the ovary to return to its natural position.

I have now offered to your notice (and I regret much that it has been at such long intervals) several cases of retroversion of the uterus, and lastly of this peculiar condition of the ovary, which have been treated by the use of the prone position; and, from their successful results, I feel sure that we possess a means of relieving them not less simple than effective, and therefore well worth the attention of medical men. I do not pretend to say, that the prone position will cure all cases, either of retroversion or of the ovarian displacement above mentioned; but I feel confident, from a pretty extensive trial of it, that in many, (and as far as I have had the opportunity of observing I might say the majority,) it will succeed completely in removing the displacement, and that even in the most unsuccessful it has scarcely ever failed to afford very considerable relief. The ordinary horizontal prone position is seldom sufficient to rectify these displacements; although when once they are removed it is quite effective in preventing their return. The position on the knees and elbows is very valuable for this purpose, especially in the ovarian displacement, where, from the intense suffering which the slightest touch produces, so little can be done by local manipulation. Even in retroversion it is capable of removing an amount of displacement which nothing short of the introduction of the uterine sound could have effected. It will, therefore, be easily understood, that the mere prone position will seldom effect much good, unless that of the knees and elbows has been premised for a few minutes. This will restore the displaced organ to its natural position; the other will then be able to maintain it.

TYPHUS FEVER, TYPHOID FEVER, RELAPSING FEVER, AND FEBRICULA,

THE DISEASES COMMONLY CONFOUNDED UNDER THE TERM

CONTINUED FEVER.

ILLUSTRATED BY CASES COLLECTED AT THE BED-SIDE.

By Wm. JENNER, M.D. Londin.,

Licentiate of the Royal College of Physicians, Professor of Pathological Anatomy in University College, London, and Assistant-Physician to University College Hospital.

[Continued from page 68.]

NINETEENTH PAPER.

SUDDEN COLLAPSE.

Relapsing fever occasionally terminates in sudden collapse—this may occur during the primary or secondary attack. Death, under these circumstances, takes place with fearful rapidity. Between such cases and some detailed in these papers there is as much apparent difference, as there is between English and Asiatic cholera.

DEATH DURING THE PRIMARY ATTACK.

Case 56.—In a female aged 15 years—rigors—headache—pain in the limbs—nausea—vomiting—furred tongue—quick pulse—slight cough—sleeplessness—delirium—epistaxis—somnolence—*death* on the 12th day of disease.

Thirty hours after Death.—Moderate cadaveric rigidity—large liver—large spleen—other organs healthy.

Ellen F., aged 15 years, a female servant, was admitted into the London Fever Hospital, May 11th, 1847, under the care of Dr. Tweedie. On Thursday, May 6th, she was seized with rigors, headache, pain in the back and limbs, nausea, and vomiting; her bowels were regular at that time.

May 12th, i.e., *7th day of disease* (a).—Complains of headache; slept well last night; mind natural; tongue coated in the centre, red at the tip and centre; two stools; no appetite; some thirst; no tenderness of abdomen; pulse 112. Some cough and mucous expectoration; a little sibilous râle; no abnormal dulness of thorax; skin warm, free from spots.

A blister was applied to the chest, and a mixture containing a small quantity of tartar emetic ordered.

On the 8th day of disease I noted that she had had no sleep the preceding night; had been and was still delirious; had repeatedly attempted to leave her bed, for the purpose of wandering about the ward; the headache was gone; profuse epistaxis had occurred subsequently to the visit on the 7th day, and again on the 8th day; in all about 1½ pint of blood had been lost. She had passed three stools. Cold was applied to the head.

On the *9th day of disease* she was asleep when I visited the ward. She was reported to have passed a quiet night, and to have had three stools.

On the *10th day of disease*, I noted, slept but little last night; complains of sense of prostration; mind wanders occasionally; is at present perfectly conscious of everything around; pulse 120; cough and abnormal physical chest signs trifling; tongue covered with dry fur; three stools in bed.

11th day.—Expression dull; sleeps much and heavily; conscious when aroused; pulse 136; three stools; one of them in bed; no spots.

A blister was applied to the forehead. 4 oz. of wine ordered to be given in divided doses during the succeeding 24 hours, and a draught, with carbonate of ammonia, every 4 hours.

On the following morning she died.

The body of Ellen F. was examined thirty hours after death; the weather being temperate and dry.

The body was well made; the cadaveric rigidity moderate in amount; there was no appearance of decomposition. A layer of fat about 1 in. in thickness covered the abdominal muscles.

Head.—There was no abnormal injection of the pia-mater; no excess of serosity beneath the arachnoid; the red points in the substance of the brain were not more numerous than usual. About 1 drachm only of serosity was found in the ventricles of the brain. The fornix and septum lucidum were of normal consistence; the velum interpositum transparent. In fact, the meninges and substance of the cerebrum and cerebellum were in *all* particulars perfectly healthy.

The *pericardium* contained a little yellow serosity. It was natural in all respects.

The *heart*, pale, soft, and flabby, was in other points normal; it weighed 8½ oz., a fibrinous clot stained purplish was found in the right auricle, ventricle, and pulmonary artery. There were no adhesions of, and no fluid in, either *pleura*.

The *lungs* were crepitant throughout, slightly darker posteriorly than anteriorly; the right weighed 19 oz.; the left 15 oz. They were quite healthy in appearance.

The *bronchial mucous membrane* was somewhat redder than natural, but of normal consistence.

The *bronchial glands* healthy in aspect.

The *peritoneum* was healthy in all respects.

The *liver* weighed 4 lb. 2 oz., *i. e.*, 66 oz.; generally pale; the congestion of the separate lobules was hepatic. The liver cells, examined by the aid of the microscope, appeared healthy.

The *gall bladder* contained a considerable quantity of thin golden-yellow bile. Its lining membrane was healthy.

The *spleen* was large; it weighed 12 oz., and was somewhat firmer than ordinary.

(a) The note on this day was made by my friend Dr. Sankey.

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The *pancreas* was flabby; it weighed 2½ oz.

The *kidneys* were pale and flabby, but in other respects normal.

The *uterus* was healthy; the ovaries contained several small cysts filled with transparent serosity.

In the *stomach* was a little gruelly-looking fluid. The consistence of the mucous membrane of the organ was natural; it was mammillated in the vicinity of the pylorus. The large vessels in the cardiac three-fourths were particularly large and distinct.

The mucous membrane of the *duodenum* was somewhat greyish in hue.

The *jejunum* and *ileum* were normal in colour, consistence, and thickness. There was no thickening nor trace of disease of any kind of Peyer's patches. The solitary glands at the lower part of the ileum were distinct, but not morbidly so.

In the large intestine the solitary glands were somewhat more distinct than ordinary; the mucous membrane generally seemed healthy in all particulars.

At the time Ellen F. entered the hospital, relapsing fever was epidemic; she presented all the symptoms of the primary attack of that disease. Vomiting occurred at the outset; epistaxis on the 7th and 8th days, *i.e.*, at a time when it often appears critical. The bronchitis present on the girl's entrance into the hospital was trifling in amount. There was no trace of the mulberry rash of typhus, nor of the rose spots of typhoid fever.

The large spleen and liver, the absence of cerebral and pulmonary congestion, and the generally healthy condition of the other organs, *i.e.* taken in conjunction with the symptoms, rendered the nature of the disease of which Ellen F. died unquestionable.

The frequency with which nasal hæmorrhage occurs in several of the acute specific blood diseases, and the large size of the spleen in a large number of cases of the same affections, are facts of considerable interest—whether they are in any way related, and, if so, the relation that they bear to each other is worthy of investigation.

DELIRIUM OCCASIONALLY THE MOST PROMINENT SYMPTOM IN THE RELAPSE.

Case 57.—James S., aged 30, was admitted into the London Fever Hospital, November 6, 1846, under the care of Dr. Southwood Smith; he had been ill four days.

His pulse on admission was 104; the skin hot and dry; diarrhœa, which seemed critical, occurred on the 7th day; and on the 8th his pulse was only 60, his skin was cool, and he appeared convalescent.

James S. continued well till the 16th day, when he was suddenly attacked with vomiting, and in the night became delirious, ran about the ward, endeavoured to turn other patients out of their beds, announced in loud terms that he was a member of the swell-mob, and, in proof, attempted to abstract the watch of one of his medical attendants. On the following day, although his manner was still agitated, his pulse was only 74. He was not permanently convalescent till about the 21st day from the outset of the illness.

RELAPSING FEVER IN 1850.

The larger number of the cases of relapsing fever narrated in these papers were collected in 1847, when that disease was epidemic. However, I have already given the histories of three cases, which occurred in 1846, 1848, and 1849 respectively. I shall now subjoin the cases of two boys and their father, admitted into the hospital in 1850, to show that, although this affection was more common in 1847 than at present, it retains to-day all its characteristic features unchanged.(a)

Case 58.—In a boy aged 8 years—sudden illness—headache—frequent pulse—furred tongue—*convalescence on the 7th or 8th day.*

Relapse on the 14th day of disease—headache—frequent pulse—hot skin—vomiting—confined bowels—permanent convalescence on the 17th day of disease—accompanied for some days by an irregular pulse.

Robert N., aged 8, a pale, thin child, was admitted into the London Fever Hospital, September 25th, 1850, under the care of Dr. Tweedie. Two years since he had "the fever;" all the family had it at the same time.

On the Saturday preceding his admission, Sept. 21, after going to bed, he was seized with headache, and did not leave his bed after; he took some senna tea, which acted freely the next day.

On Sept. 25, *i. e.*, 5th day of disease, I noted as follows:—Expression natural; mind normal; conjunctivæ pale; pupils natural; is unable to walk without aid; tongue moist, furred; no stool to-day; no abnormal fulness, resonance, nor gurgling of abdomen; no tenderness of the same; pulse 120; no cough; no abnormal physical chest signs; skin cool; no mulberry rash; no rose spots; numerous small crimson spots on thorax and abdomen, unaffected by pressure (flea-bites?).

Ol. ricini. ʒij.

6th day.—Pulse 90; skin cool; sleeps well; tongue moist, clean; two stools.

7th day.—Pulse 80; feels well; no appetite; three stools.

9th day.—Pulse 72; appetite good; one stool.

On the 14th day of disease, I noted:—Early this morning he awoke one of the patients crying with headache. He was quite well when he went to bed. The nurse saw him at 11 p.m.; she paid especial attention to him, because relapse was anticipated

At the time of the visit:—Pulse 124; skin hot; face flushed; tongue moist, very slightly furred; three stools the last twenty-four hours; no vomiting; has had no rigors and no chilliness.

15th day.—Pulse 120; skin hot, dry; sleeps much; tongue moist, white; no stool since yesterday; no abnormal fulness, resonance, nor tenderness of abdomen.

Ol. ricini, ʒij. st. s.

16th day.—Pulse 112; skin warm and dry; sleeps well; no headache; no delirium; vomited twice last evening; tongue moist, white; no stool.

17th day.—Pulse 64; skin cool; no sweating; tongue moist, white; vomited once yesterday after the visit.

Hyd. chlorid. gr. ij.; pulv. scammon. gr. vi., M. st. s.

18th day.—Pulse 56; skin cool; two solid stools; appetite good.

19th day.—Pulse 60, irregular in frequency; no stool; tongue moist, white.

20th day.—Pulse 54; tongue moist, clean; one stool; good appetite.

22nd day.—Pulse 54, irregular in frequency; no stool; appetite good; well.

The sudden rise in the pulse, at the outset of the relapse, to 124, and its sudden fall from 112 on the 16th day to 64 on 17th day, is worthy of note. No critical discharge appears to have marked either the termination of the primary attack or of the relapse. Irregularity in the frequency of the pulse at the termination of the relapse is occasionally observed; I do not remember, however, another case in which it occurred in a very young subject.

Case 59.—In a lad aged 17 years, sudden illness—slight headache—sense of weakness—frequent pulse—nausea—tenderness at epigastrium—vomiting of green fluid—slight jaundice—*convalescence 8th day.*

Relapse on the 16th day—hot and dry skin—frequent pulse—slightly furred tongue—vomiting of yellow fluid—*permanent convalescence on the 19th day.*

James N., aged 17, a hawker, thin and fair, the brother of Robert N., had "the fever" at the same time with the other members of his family, *i. e.*, two years since. Admitted into the London Fever Hospital September 25, 1850, under the care of Dr. Tweedie. On the Saturday preceding his admission, bowels confined at the time of attack.

On September 25, *i. e*, the 5th day of disease, I noted:—Expression natural, conjunctivæ pale, pupils normal; no mental aberration; slight headache (*at vertex*); feels very weak, but is able to walk with a little aid; tongue moist, furred, white; no stool for twenty-four hours; no appetite; some thirst; pulse 96; no cough; no abnormal physical chest signs; skin cool, no mulberry rash, no rose spots; no crimson spots, *(flea-bites?)* *i. e.*, such as seen on his brother Robert N., *Case* 58. Ol. ricini ʒij. st. s.

6th day.—Pulse 100; skin rather hot; slept well; frontal headache; tongue the same; nausea; some tenderness at epigastrium; three stools.

7th day.—Pulse 72; skin cool; no spots; no sweating; conjunctivæ rather yellow; complexion sallow; vomited some green fluid several times during the night; slight tenderness of the epigastrium; two watery stools; appetite returning.

(a) During the last month, October, several cases of relapsing fever were admitted into the hospital.

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8th day.—Pulse 66; no vomiting; appetite trifling; no stool; tongue cleaning.

9th day.—Pulse 56; skin cool; no sweating; faint sallowness of conjunctivæ; tongue moist, still slightly furred; two stools; no appetite.

10th day.—Pulse 70; skin natural; no sweating; tongue moist, clean; no stool for twenty-four hours. Ol. ricini ʒij., mane s.

11th day.—Pulse 96; four stools; appetite returning.

12th day.—Pulse 60; skin natural; tongue clean; appetite good; no stool.

13th day.—Pulse 60; two stools.

15th day.—Pulse 52; tongue clean, and otherwise as before.

16th day.—Pulse 96; skin hot and dry; slept well; tongue moist, slightly furred; appetite good; no spots of any kind on the skin. Ol. ricini, ʒij., st. s.

17th day.—Pulse 84; skin rather hot; tongue same; one stool; appetite good.

18th day.—Pulse 108; skin hot and dry; tongue the same; no stool. Ol. ricini, ʒiij., st. s.

19th day.—Pulse 64; skin natural; slept but little; vomited three times yesterday much yellow fluid, before the oil was administered; tongue moist, white, thickly furred; four stools.

20th day.—Pulse 54; slept well; tongue cleaner; no vomiting; two stools.

22nd day.—Pulse 54; skin natural; no stool; tongue clean; appetite good; no vomiting.

The pulse fell between the 6th and 7th days twenty-eight beats; between the 15th and 16th days it rose forty-four beats. Had this case not been watched carefully the relapse might not have been observed till the 18th day; at that time, a pulse of 108, hot and dry skin, and repeated vomiting of yellow fluid, would have fixed the attention of the most inattentive. On the following day the pulse had fallen to 64, *i. e.*, forty-four beats; and, on the 20th day, the frequency of the heart's action was only half that it presented on the 18th day.

Trifling jaundice, *i. e.*, sallowness of the skin, and a more decidedly yellow hue of the conjunctivæ, were observed on the 7th day of disease.

This boy presented no trace of those little crimson spots, the exact nature of which is yet matter for inquiry.

Who can doubt that if this lad had been bled, or that if any favourite specific had been administered to him on either the 7th or 18th days of disease, that the marked diminution in the frequency of the pulse, and the general improvement on the 8th and 19th days, would have been attributed to the remedies employed. Oh! the pitfalls that everywhere lie hidden for the therapeutist! Surely *he* need keep fast hold on the thread of rigid induction.

Case 60.—In a man aged 41 nausea—loss of appetite—rigors—chilliness—vomiting of yellow fluid—headache—skin sallow—conjunctivæ yellow—furred tongue—enlarged spleen—*convalescence by the 8th day.*

Relapse on the 16th day of disease—pain in the limbs—hot skin—white tongue—nausea—retching—profuse sweating—miliary vesicles—frequent pulse—*permanent convalescence on the 20th day of disease.*

James N., aged 41, a fair, thin man, of tolerably temperate habits, (two pints of porter daily,) by trade a carman, was admitted into the London Fever Hospital, Oct. 12th, 1850, under the care of Dr. Tweedie. He had been residing at 2, Smith's-court. In 1847, he had, at the same time with other members of his family, an attack of "the fever;" since then he had enjoyed the best of health.

On Sunday, Oct. 6th, while in the act of sitting down to take tea, he felt nausea; lost his appetite. Slept well on Sunday night. On Monday, on first rising, he felt a cold chill around his loins, and general sense of illness. At this time his bowels were rather confined. He went to work, and while so engaged was attacked with cold chills and rigors. In the evening he had some medicine, after which he vomited much yellow fluid. On Monday night he took to his bed. From that time till admission he suffered from frontal headache, hot skin, alternating with chills.

The following notes were taken:—

Oct. 13th, *i.e.*, the 8th day of disease.—States that he was much worse the day before, than on that of his admission into the hospital, and the nurse says he was then much worse than at the present time.

Slept from 12 last night till 4 a.m.; mind clear; complexion sallow; conjunctivæ yellow; cheeks slightly flushed; can walk unaided, but feels rather weak; tongue moist, large, pale, loaded posteriorly; no tenderness of epigastrium; no appetite; no nausea; no stool for three days; splenic dulness seven fingers' breadth vertically; no abnormal fulness, resonance, nor tenderness of abdomen.

Pulse 72, soft; no cough; no abnormal physical chest signs.

Skin cool, damp; no mulberry rash nor rose spots; numerous hæmorrhagic points, purple, unaffected by pressure, with well-defined edges (flea-bites?)

Ol. recini, ʒiij. st. s. Mist. acid. sulph.

14th Oct., *i.e.*, the 9th day.—Pulse 72; skin natural temperature; tongue clean; three stools; less sallowness; no miliary vesicles.

On the 17th Oct., *i.e.*, the 12th day, his appetite was good, and on the 18th a note was made that his pulse was 72, and his bowels regular. He was now very anxious to be allowed to get up, as he felt quite well.

On the 19th Oct., *i.e.*, the 14th day, his bowels acted, and he seemed on the following day as well as ever; he was not, however, allowed to leave his bed. His diet consisted only of beef-tea, bread, and rice-pudding.

At 3 a.m. on the morning of the 21st Oct., *i. e.*, the 16th day of disease, he awoke with pain in the legs and back, and did not sleep after; he had neither rigors nor headache; there was some nausea; he felt very hot; and in the morning the skin was hot, the tongue white, and he complained of great sense of weakness. There was now loss of appetite, and he kept his bed all day; he retched much in the afternoon, ejecting, however, only a little white frothy fluid.

At 10½ a.m. a dose of castor oil was administered; it acted once half an hour after it was taken, and again in the evening. About 5 p.m. he broke out into a profuse sweat; the clothes and sheets were quite wet through. He then slept from 10 p.m. till near 1 a.m.; and after 1 a.m. felt quite comfortable and well; the pains, he said, all left him.

22nd Oct., *i.e.*, 17th day of disease, 8½ a.m.—Pulse 96; skin warm, dry; a few miliary vesicles on groins; no stool since last evening; no nausea; tongue white and moist, thickly furred; no pain in limbs; spleen five inches vertically; no yellowness of skin.

On the 23rd Oct., *i.e.*, the 18th day of disease:—Slept none; no delirium; no local pain; feels very low; expression dull and rather anxious; sweated a little last night; no miliary vesicles; vomits everything he takes; no green fluid; constant nausea; belly soft, not tender; skin hot and dry; no stool; leaves bed unaided with difficulty. A saline aperient draught, some saline effervescing draughts; a simple enema, and a mustard poultice to the pit of the stomach were prescribed.

On the 19th day:—Pulse 96; passed a restless night; slept about one hour; says he sweated about the head last night, none elsewhere; tongue moist, loaded; seven stools, watery, (after draught). Vomited occasionally till this morning; none to-day. The mustard poultice has left a deep stain, studded with dark crimson points, unaffected by pressure.

25th Oct., *i. e.*, the 20th day of disease.—Pulse 84; no local pain; slept well; feels nearly well; no vomiting; tongue clean; one stool; sweated last evening for an hour about head and face; spleen 2½ fingers'-breadth.

On the 21st day he was marked to be convalescent.

This man, James N., was father to the two boys, Robert and James N., *i. e.*, the two immediately preceding cases. Like his two sons, James N. had relapsing fever; all three had probably been exposed to the same cause, and all three had the same disease,—the father subsequently to the sons. Moreover, a man who removed the children to the workhouse before they were sent to the hospital was, at a later period, admitted into the latter, labouring under the same disease as James N. and his sons. This man did not reside in the house of the N's; but he lived in the same court—one of the London Fever Preserves.

With reference to James N., father, he was evidently just convalescent from the primary attack when I saw him on the 8th day of the disease. He was exceedingly ill for two days during the relapse, certainly worse than the notes appear to represent him. James N., sen., was kept in bed after the 9th day of disease, simply because I was anxious that no cause, such as exposure, error in diet, &c., should interfere with the natural course of the disease. In spite, however, of every precaution, he relapsed. The disease running in the

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father and the elder son precisely the same course, they both were convalescent from the first attack on the 8th day of disease; both relapsed on the 16th day; and in both permanent convalescence was established on the 19th or 20th days. Both, also, it is worthy of note, were slightly jaundiced towards the termination of the primary attack. In the younger child primary convalescence was noted on the 7th or 8th day; relapse occurred a little earlier than in the father and elder brother, *i. e.*, on the 14th day instead of the 16th day; and permanent convalescence was established by the 17th day, instead, as in their cases, by the 19th or 20th day.

Cases such as these (and I have seen very many similar the last two months) (a) must, I think, satisfy the sceptical of the existence of relapsing fever as a disease distinct from typhoid or typhus fever.

James N. and his two sons had fever two years before their present illness. The species of fever from which they suffered at that time could not, of course, be ascertained. It is clear, from the evidence of others, that relapsing fever not unfrequently affects the same individual a second time, and *that* sometimes even within a few months after the termination of the first attack. Dr. Christison—then Mr. Robert Christison, when clinical clerk to Dr. Welsh, is stated by that physician, in his work on the Epidemic of 1817 and 1818, to have suffered twice from the disease under consideration. In this particular, relapsing differs from typhus and typhoid fever. (b) Moreover, it is to be borne in mind, that an attack of either of the three fevers has no effect in protecting a person from an attack of the others. Dr. Bartlet details cases in which typhoid and typhus fevers affected the same individuals in succession. Several examples of typhus fever following relapsing fever, and *vice versa*, are mentioned by the various historians of the Scotch epidemic of relapsing fever of 1843. (c)

The subjoined case will illustrate the facts, that an attack of typhus fever does not protect an individual from relapsing fever, and that an attack of relapsing fever is no protection against typhus fever.

Case 61.—In a man aged 25 years.—Vertigo—pains in limbs—headache—confined bowels—vomiting—*convalescent on the 8th day—relapse on the 16th day of disease*—rigors—frequent pulse—hot skin—furred tongue—headache—vomiting—severe pain in the limbs—permanent *convalescence 18th day of disease.*

Edward B., aged 25, a labourer, was admitted into the London Fever Hospital, December 1, 1847, under the care of Dr. Tweedie. On Friday, November 26, he was attacked with vertigo, pains in the limbs, slight rigors, and headache. His bowels had been confined the two preceding days; he vomited for the first time the day befor his admission. He took to his bed on the fourth day of illness, because he felt too weak to keep about.

On the 7th day of disease.—A little headache; vertigo; unpleasant taste (fishy) and sense of disagreeable odour; other special senses normal; intellect unaffected; expression natural; strength slightly impaired, but he can walk unaided; complains of some pain in the shoulders and hips; tongue moist and covered with thin white fur; two stools; appetite good; no abnormal fulness, resonance, nor tenderness of abdomen; pulse 70; a little cough; trifling mucopurulent expectoration, some sonorous râle heard on deep inspiration; skin cool; no spots of any kind.

On the following day his pulse had fallen to 60, his tongue was clean, and there was no headache and no vertigo.

On the 16th day I found that he had, shortly before I saw him, been seized with rigors; his pulse was 120, skin hot, tongue furred, bowels confined, and there was a little nausea. He was complaining of severe headache. Half an ounce of castor oil was directed to be given directly.

17th day of disease.—Pulse 120; headache rather less severe; rigors were repeated yesterday evening, and he had little sleep last night; tongue moist, furred; one stool; has vomited once; nausea; pain and tenderness at the epigastrium; *complains of much pain in the limbs;* head to be shaved; a mustard poultice applied to the epigastric region, and some simple saline effervescing mixture given every four hours.

18th day.—Pulse 60; skin cool and moist; little headache; slept but little last night; tongue as yesterday; no stool; less nausea; no vomiting; no tenderness at the epigastrium.

19th day.—Pulse 60; no headache; two stools; tongue clean. The man was now convalescent, and in a few days he left the hospital well.

On the 19th of January, 1848, he was re-admitted with typhus fever, and had mulberry rash; from this, also, he eventually recovered.

Edward B., on his admission, was evidently recovering from some slight ailment. The pains in the shoulders and hips, seeing that his pulse was only 70, and that he evidently had been suffering much from general disturbance of the system, and that his illness commenced with vomiting, might perhaps have raised a suspicion as to the nature of his disease; all doubt was removed by the relapse. The pain in the limbs, although considerable, was not so long continued as it is in many cases, and was perhaps less severe; not unfrequently it is a most distressing symptom.

Two boys, aged respectively 13 and 19 years, brothers, were admitted into the hospital in 1849 with well-marked typhus fever. The elder died of erysipelas which supervened during early convalescence; the younger recovered; both had been inmates of the hospital in 1847. At that time both had equally well-marked relapsing fever.

(a) Nov. 1850. I may here state, that I have not seen, during the past year, a single exception to the law, that when more than one person suffers from typhus, typhoid, or relapsing fever, in consequence of exposure to a common cause, they all suffer from the same fever. Several families have lately been admitted into the hospital, every member suffering with relapsing fever. For analyses of cases occurring anterior to Nov. 1849, see "Trans. Med. Chir. Society, Vol. XXXIII.

(b) I have before referred to and illustrated the fact, that typhoid fever may, in very rare cases, relapse; but such cases, so far as my experience reaches, are *very* rare.

(c) See Dr. Henderson's paper in the "Edinburgh Medical and Surgical Journal," for 1843, On the Epidemic of 1843, by R. Cormack, M.D. On the Scotch Epidemic Fever of 1843, by R. Wardell, M.D.

ON THE MEDICINAL ACTION OF ARSENIC IN CUTANEOUS AND OTHER DISEASES.

BY THOMAS HUNT, ESQ.

No. III.

2. ON THE USE OF ARSENIC IN INTERMITTENTS.

ARSENIC appears to have been more uniformly successful in intermittents than in any other diseases. Such is clearly the testimony of the respected contributors to the "Memoir on Arsenic," above referred to. The following extracts from the Memoir will be read with interest:—

"Mr. Ancell's experience of the use of arsenic was chiefly on the Ohio and Mississippi rivers, where he administered it extensively, (in many hundreds of cases of intermittent and remittent fever.) "At that time," he adds, "quinine had not been brought into use. Powdered bark in port wine, or otherwise, was the remedy. The disease was most inveterate, the stomach would seldom tolerate a sufficient quantity of the medicine, and the disease continued five, six, or ten weeks, or longer. On suddenly setting aside the bark and taking to the white oxide of arsenic, the paroxysms were generally arrested in three days, and the patient very rapidly became convalescent." . . . . "I first used Fowler's Solution, but frequently failed; I then used the arsenious acid, beginning with one-sixteenth of a grain three times a day, increasing it to one-eighth of a grain, and in some few cases even to a sixth." Mr. I. B. Brown has frequently succeeded in curing Essex intermittent fevers with arsenic, after the use of bark and quinine had failed. Dr. William Dix writes, "During my apprenticeship in Norfolk, near the coast, the prevalence of ague was so great, that we have used in the year fifteen wine quarts of Fowler's Solution, in a population of forty-five incorporated parishes (under Gilbert's Act). I have scarcely ever cured a case of intermittent fever, during a practice of nearly forty years, with any drug but arsenic, which I have administered with the most gratifying results." Mr. Girdwood relates, that "A patient took two drachms of Fowler's Solution, in twenty-four hours, by mistake. It cured the ague, for which it was administered (a tertian,) and it had no detrimental effect." Dr. Heygate mentions the remarkable degree of success which attended the administration of arsenic during the years 1826-7-8-9, when ague

was epidemic in this country." Six or seven hundred cases fell under Dr. Heygate's treatment, and he says:—"The liquor arsenicalis I almost invariably found a speedy and effectual remedy. I certainly have found this solution succeed, when bark, quinine, and all other remedies have failed." It was administered always under the condition of previously correcting any foulness of the tongue which might be present; and remitted, if heat or thirst occurred during its exhibition. The dose was ten to fifteen minims. Mr. Hunter says, that in the fens of Lincolnshire, where arsenic is largely used, suicides are very frequent; the miasma is depressing, and the poison is at hand. Mr. Hurd was for six years in malarious neighbourhood, where arsenic had been long used for the cure of intermittent fever. The results varied. Where bark or quinine failed, arsenic (apparently) succeeded, and *vice versa*, but *why* was not at the time made out. Mr. Stoneham says:—"In a very aguish district, the poor wanted the 'drops,' not the 'doctor.'"

It appears, from the united experience of many practitioners, that in ague, of whatsoever type, quinine will rarely fail alone, and arsenic alone will rarely fail; but, when one fails the other will often succeed; and a combination of both remedies, in full doses, has never been known to fail. The full dose of Fowler's solution in intermittents may be set down as ten minims three times a day after a meal. The medicine should be watched.

3. ON THE USE OF ARSENIC IN NEURALGIA.

The treatment of neuralgia must of course vary with the causes, nature, and history of the disease; and arsenic is applicable only to a limited class of these painful disorders. Its value in this class is, however, unequalled; and the fact cannot be too frequently pressed upon the attention of the Profession.

In *intermittent* neuralgia the powers of arsenic are most conspicuous. The testimony of the contributors to the Memoir is, on this point, very strong. It amounts to nothing less than that "in intermittent neuralgia it seldom or never fails." As an anti-periodic the value of arsenic is in fact fully acknowledged by the Profession; but in many cases of neuralgia in which the attacks are not periodical, but where there is a type of debility or exhaustion with feeble circulation, arsenic is sometimes found a most valuable medicine. It is useful only where there is no disorder of the digestive organs, no inflammatory type, and no local congestion.

4. ON THE USE ARSENIC IN LUPUS.

There are two very distinct diseases to which the term *lupus* has been applied by the French writers. One of them (*lupus non exedens*) is a cutaneous disease which rarely ulcerates, and its ravages are generally confined to the dermis. The other (*lupus exedens*) is a disease characterised by a very slow ulcerative process of the phagedenic kind, which begins in the skin, eating away not only the dermis but subcutaneous tissues down to the very bone. It commonly commences on the nose, and has been known to destroy every feature. For both of these diseases, (which have always been pronounced incurable by all medical writers,) I have for nearly fourteen years been trying the internal administration of arsenic. Both diseases are very rare, and during the above-mentioned period not more than twenty cases have fallen under my immediate observation. Some of the cases of lupus exedens have already been published,(a) and the whole of them are full of interest and instruction. More recently several cases have been reported to me as having been restored by the use of arsenic, and one or two have recovered by the use of other means. It is gratifying to reflect, that this horrible disease, which has been known to be devouring and mutilating the features of a handsome female for upwards of thirty years together, setting all treatment at defiance, and thus proclaiming the helplessness of our art, should at length be placed on the list of curable diseases.

Arsenic has been used as an external application in lupus exedens for many years, with temporary benefit, which has been attributed to its escharotic properties; a more healthy surface having usually been apparent on the separation of the eschar. This improvement having always proved but of short duration, I began to suspect that it resulted rather from the absorption of the arsenic into the system than from any local influence. Accordingly, I determined on a lengthened trial of its internal exhibition. This experiment was attended with the most happy results. A very short outline of a few cases will convey to the reader a general view of the effects of this powerful agent in lupus exedens.

Case 15.—*Lupus Exedens.*—In this case the disease had existed nine years. The patient took arsenic regularly for three years, when the diseased parts were entirely healed. A relapse occurred in seven months. The arsenic was then resumed, and continued for two years, when the disease again disappeared, and has shown no disposition to return for the last eight years. The lower half of the nose, the septum, the four upper incisors, and a portion of the upper lip have been sacrificed by the destructive process. The general health is uninjured. Preparation—liquor potassæ arsenitis; dose—five minims, gradually reduced to two, thrice a day.

Case 16.—*Lupus Exedens.*—The disease had existed *twenty-four* years, and was arrested by arsenic in *two months;* after which period the skin remained irritable, but no ulceration appeared. The patient has now been free from lupus for four years, having taken arsenic occasionally for three years. The tip and septum of the nose, and the greater part of both alæ, are destroyed. The upper lip and lower eyelid of the right eye are scarred. The health of this patient is not only uninjured by the arsenic, but is very materially improved. The same preparation was used as in the last case. This extraordinary case is well known to Professor J. H. Green, Dr. Blundell, and other medical men. The patient is still subject to occasional attacks of impetigo, and the skin of the nose is somewhat irritable, but it is gradually recovering as her health improves.

Case 17.—*Lupus Exedens.*—The disease in this case had existed six years. The arsenical course was commenced at Midsummer. By the following Christmas the nose was reported as "nearly well," and the health and appetite much improved. The right ala of the nose was nearly destroyed, and the bone had become painful. Fowler's solution was the preparation used in the usual doses. This lady resides in the north of England, and I have not heard of her lately.

Case 18.—*Lupus Exedens.*—This was a recent case. The disease had existed only two months, and was not finally cured until the arsenic had been taken for nearly five months. The disease attacked the right ala of the nose, of which a small portion was destroyed. The general health was much improved by the arsenic.

These cases will suffice to demonstrate beyond doubt or cavil, that there is a fair prospect of recovery in cases of lupus exedens, under the internal administration of arsenic.

The success which has attended the use of arsenic in lupus non exedens is by no means so well marked. Out of seven cases in which it has been tried, not one has been entirely cured; but three have been benefited, three are under treatment, and in one case no apparent improvement was manifested.

Among the seventy-five contributors to the memoir on arsenic, not one reports that he has used arsenic internally in lupus, and one only reports benefit from its external application. My experience would teach that it is better to trust to its internal exhibition.

5. ON THE USE OF ARSENIC IN CANCER.

Cancer and lupus, though distinct diseases, have many features in common. They have no tendency to spontaneous recovery, and they seldom remain stationary long together. They are both chronic constitutional disorders, and have both been considered incurable. Lupus attacks the young, cancer the old and middle-aged, and is therefore less hopeful. Still the powers of arsenic in a disease so closely allied to cancer as lupus, suggested to me the possibility that it might also be useful in cancer, administered on the plan and with the precautions already detailed. Anxious to obtain the testimony of other practitioners in addition to my own, I have, for the last three years, urged upon my professional friends the desirableness of testing the value of arsenic in cancer. The results, if not satisfactory, (being limited and various,) are yet encouraging. For this treatment, however, I claim neither originality nor novelty. Records of the use of arsenical preparations in the treatment of cancer are coeval with the earliest annals of medicine. In the thirteenth century, the monk Theodoric introduced into practice the arsenious acid as a remedy for scrofula. Guido used it, in the next century, as an escharotic in scro-

(a) Hunt on Diseases of the Skin, p. 111.

fulous tumours; and it was afterwards used externally in cancer. And there can be no question that it was most extensively, though secretly, used, in the fifteenth century, by Paracelsus; and that it afterwards formed the basis of several quack medicines for cancer. The present century has likewise had its advocates for the use of arsenic in cancer. In the year 1810, Mr. G. N. Hill published, in the *Edinburgh Medical and Surgical Journal*, the results of his experience, which led him to conclude that arsenic retards the progress of the complaint, prevents ulceration, and sometimes dissipates the tumour. This opinion is confirmed by Dr. Copland. In the year 1839, Dr. Crane published some observations to the same effect; and both Dr. Walshe and the late Dr. A. T. Thompson consider the iodide of arsenic to possess more power over the disease than any other medicine. My own experience, and that of my friends, afford strong evidence that these views of the powers of arsenic in cancer are by no means exaggerated, and that the disease is specifically affected by it,—to what extent, and on what conditions, must be reserved for consideration in the next paper.

26, Bedford-square.

Many Correspondents having expressed a desire to communicate personally with the Editor, he now intimates that he will see gentlemen, on business connected with the MEDICAL TIMES, *between the hours of* 12 *and* 2, *on Mondays, Wednesdays, and Thursdays, at the Office.*

It is further intimated, that Communications otherwise addressed than to the EDITOR, *46, Princes-street, Soho, will not be noticed.*

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening, February 1.—MEDICAL SOCIETY OF LONDON. *Subject*:—Mr. Greenhalgh, "On the Use of the Speculum." Eight o'Clock.

Monday, February 3.—CHEMICAL SOCIETY. Eight o'Clock.
EPIDEMIOLOGICAL SOCIETY. Half-past Eight o'Clock.
ENTOMOLOGICAL SOCIETY. Eight o'Clock.

Tuesday, February 4.—LINNEAN SOCIETY OF LONDON. Eight o'Clock.
PATHOLOGICAL SOCIETY. Eight o'Clock.

Wednesday, February 5.—GEOLOGICAL SOCIETY. Half-past Eight o'Clock.
HUNTERIAN SOCIETY. Eight o'Clock.

Thursday, February 6.—ZOOLOGICAL SOCIETY. Three o'Clock.
ROYAL SOCIETY. Half-past Eight o'Clock.
HARVEIAN SOCIETY. Eight o'Clock.
KING'S COLLEGE MEDICAL SOCIETY. Half-past Seven o'Clock.

Friday, February 7.—ROYAL INSTITUTION. *Subject*:—Professor Owen, "On Metamorphosis and Metagenesis." Nine o'Clock.
PHILOLOGICAL SOCIETY. Eight o'Clock.
BOTANICAL SOCIETY OF LONDON. Eight o'Clock.
WESTERN MEDICAL AND SURGICAL SOCIETY. Eight o'Clock.

Saturday, February 8.—ROYAL BOTANIC SOCIETY. Quarter to Four o'Clock.
MEDICAL SOCIETY OF LONDON. *Subject*:—Dr. Theophilus Thompson, F.R.S., "On Some Points in the Treatment of Phthisis." Eight o'Clock.
GUY'S HOSPITAL PHYSICAL SOCIETY. Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, FEBRUARY 1.

THE IRISH MEDICAL CHARITIES BILL.

BY far the most important measure connected with the Medical Profession in Great Britain, which has been proposed for many years, is the Irish Medical Charities Bill, to which we so frequently adverted during the past session. We have reason to know, that Sir William Somerville will re-introduce his Bill early in the ensuing session; and it behoves all who have the welfare of the Profession at heart, calmly to consider and discuss its bearings, strenuously upholding such portions of it as are intended for the public good, and the maintenance, elevation, and respectability of the Profession at large in the sister kingdom, and at the same time exposing its errors and defects, and, if possible, preventing it becoming like most legislative enactments relating to Ireland,—a "job."

Did our space permit, we should like to take a cursory glance at the history of the Medical Profession in Ireland, and the various laws, which from time to time, have received the sanction of the Legislature, for affording medical relief by means of hospitals, infirmaries, dispensaries, &c., during the last fifty years. But the limits of a periodical, and the urgency of the matter in hand preclude this. Like everything else in Ireland, the lamentable consequence of the wind-up to the bankrupt affairs of that portion of the United Kingdom, the medical charities in the rural districts are also in a state of insolvency; and while disease, as the consequence of the famine, misery, and destitution of the last five years, has increased, the means for supplying medical relief, in the form of Dispensaries especially, have ceased with the gentry and the comparatively opulent, from whom they emanated. Added to this, the burthen of taxation, and a familiarization with disease and death, have steeled the hearts of many of the benevolent against paying their usual subscriptions to the local Dispensaries. The whole country is in a transition stage; the landed property is fast changing owners in the South and West; and during the process consequent thereon, and until the new comers become established, take root in the soil, and begin to derive some benefit from their purchases, it cannot be expected that voluntary contributions, sufficient to support even the best and longest established Dispensaries, can be collected. We have ever been of opinion that medical relief should be afforded to the poor by means of compulsory taxation; but, whatever question might have arisen on this subject before, it is now imperative. Something must be done, and quickly, both for the poor who are left to perish, and for the medical men, several of whom, in remote parts of the country, have been of late, we have reason to know, almost entirely dependent upon the sixty or eighty pounds' income derived from their dispensaries. That the majority of country practitioners in Ireland feel the full force of what we assert, the meeting lately held at the College of Surgeons in Dublin is sufficient proof.

We should like, but that we know we are addressing men as well acquainted with the matter as ourselves, to describe the old dispensary system. Every honest man knows, as we do, that it was rotten to the core—a system of jobbing and tyranny, insufficiently providing for the wants of the poor, and cramping the independence of the medical attendant, who, for the five or six guineas subscription from the neighbouring squire, had to supply medicine and advice to all his household servants, and to "doctor" the squireen, the farmer, and the petty shopkeeper, each for his guinea per annum. Let him refuse to do so; let him demur to a peremptory order from the nobleman's agent or driver, to ride off in the middle of the night six or eight miles, among bogs or mountains, to attend a midwifery case in the person of the bailiff's wife, and the subscription was withdrawn, the presentment traversed at the next assizes, or an opposition dispensary immediately set up in the neighbourhood; or

let him refuse five shillings a day (by the way we wish some of our friends had it now), and some tyro was sent from the metropolis armed with authority to supplant him. How were the funds of these dispensaries kept up? A good-natured friendly treasurer frequently advanced some of the subscriptions, or the doctor himself paid them, in order to procure the equivalent grand jury presentment; and besides all this, he had to fight his cause before the meeting of ratepayers, or to visit the county town during an assizes, and use his personal interest with the grand jury to get his miserable stipend.

Most of the Irish dispensaries were originally got up to benefit some young doctor, by his immediate connexions, friends, or partisans. Subscriptions "for one year, at all events, just to set it agoing," were got up, and when all was properly arranged, the matter was made public, and a medical man advertised for. Then came the tug of war. Rival candidates appeared in the field, laden with testimonials from their teachers and medical friends; every description of agitation that ever was used at a general election for "Mimbers" was put in force; the strong moving principles that have, alas! swayed the destinies of Ireland for so many years;—politics and religion pervaded the contest; while education, qualification, or knowledge, frequently bore no part whatever in the matter. The same review of what has taken place, and does still occur, is equally applicable to the election of medical officers in a large number of Irish dispensaries, no matter where located or how organised.

Let us, again, take the case of the poor. How have they fared under the late system? Nothing could be worse. They were left to the mercy of their landlords for medical provision or not. The landlord might be an absentee,—knowing nothing, and caring less about the people; or, if a resident, he might have peculiar notions of his own, on the subject of sanitary relief or the administration of the healing art; he might be a homœopath, (such there are, from the Lord Mayor of Dublin downwards,) and while he withdrew his guinea or two (made four by the County Presentment) from the neighbouring dispensary, his good lady would administer "globules," or resort to Mesmerism, instead of dealing out wine and flannel. Or, again, the proprietor's agent might disagree with the doctor, and immediately withdraw his employer's subscription; thereby, until some new dispensary could be got up, depriving several thousand people of medical assistance in case of accident or disease. We knew an instance where a provost of the Irish University withdrew the subscription from a remote dispensary because the medical man refused to attend a midwifery case nine miles from his residence. That there were, and are still, many benevolent and generous individuals among the nobility and gentry of Ireland, who nobly supported the dispensaries upon their estates, we are well aware; but they are the exceptions, and they are, as well in the Dispensary relief as in the Poor-law taxation, paying for the tenantry and retainers of their less provident or less benevolent neighbours. It will scarcely be believed in this kingdom, that there are portions of the sister island, thirty miles long and twenty broad—not like the deer forests of Scotland, useless wastes, rendered so and weeded of their population to gratify the sporting propensities of their owners, but which were well peopled, at least before the famine began,—on which there was no dispensary or hospital, nor any medical man located!

The poor were not properly attended; in most instances the medicine was insufficient. Look at the report of Dr. Borrett and Mr. Cusack Rooney, many years ago, in proof of this. The attendance was inadequate. Frequently the medical officer resided many miles off in some petty town or more populous district, or in the neighbourhood of some poor-house, the emoluments from which enabled him to eke out a decent livelihood; and for 40*l.* a-year he rode or drove to his dispensary in all weathers, six or eight miles off, once a week, when he operated, pounded and compounded, prescribed and administered, for two or three hours together, in a cold, damp, earthen-floored room, jalap and calomel for the young, Glauber's salts for the middle-aged and robust, and compound aloetic pill for the old, especially women. The great majority of those applying was not so much to gain relief as to get the doctor to listen to their ailments, and "pass his opinion" on their maladies, the latter consisting, according to their own accounts, for the most part, of "a pain and a smothering about the heart," which we must inform our English readers is the popular description of a prominent symptom of Irish dyspepsia. Coughs were cured by a blister and a syrup. Some had their teeth drawn; many their heads dressed after a "batin;" and several others came "to be bled before harvest." Dropsy has always been a frequent disease at Irish county dispensaries, and of late years, chronic starvation and dysentery presented in numberless instances. There were always a few to carry home medicine to the parent or child lying in fever many miles off. There was often no waiting-room, except the stable where the doctor put up his horse, and many miserable wretches had to wait for hours shivering in the cold out of doors. Sometimes a subscriber or his lady took upon themselves to prescribe, and wrote a polite note to the doctor, desiring him to send by bearer (a ragged girl with a spoutless jug or a broken tea-cup) "a dose of castor-oil and a warming-plaster, for Biddy Muldoon, who was on the point of death, and it was feared the physic would not overtake her alive," with a *nota bene* not to delay the messenger; said Biddy being then engaged in picking potatoes for her mistress! All this the unfortunate medico knew full well, but he dare not refuse, for his place, to a certain degree, depended upon his compliance. These details may seem ludicrous, but they are not beneath the dignity of the subject, because they are true, and because they are crying evils.

But this is not all which our Irish brethren in remote country parts have to endure. Returning at the close of the day, wearied in body and fatigued in mind,—his heart drenched with the unrelievable misery which he has witnessed, but which, for the honour of human compassion, that, like a spring, bubbles up afresh, pure and purifying, through the waters soiled by daily intermixture with the surrounding streams of cruelty unpunished, and wretchedness unassisted, that pour into it from all sides of that fetid quagmire in which the Irish peasant grovels,—it still yearns to relieve. His homeward course is arrested by a squalid woman, half clad, scarcely fed, and bearing on her anxious countenance, in addition to the too-manifest evidences of long-protracted physical suffering, the traces of recent care and anxious watching. She beseeches him, in epithets and entreaties, and with blessings such as the heart of an Irish woman in her condition of life alone can utter, and frequently in the full pathetic tones of her native tongue, "to slip down the boreen, just to take a look at her husband, who is lying in the sickness" (fever). On inquiring as to the cause of her not having applied at the Dispensary with her ticket, in the usual way, he learns, that "since the masthur has gon furrin on the head of the forfeited estates, and the ladies, the cratures, have little or nauthin for themselves, and the priest and the doctor is their only hope beyond the yallow

male," the subscriptions have ceased, and the poor of that district have had no claim on the Institution. Riding down the bridle-road as far as it is possible with safety, and leaving his horse to the care of one of the ragged urchins that have accompanied their mother, he crosses half a mile of a "bit of a bog," and jumping over the stagnant cesspool, sweltering with recent manure, and exhaling every noxious vapour, which forms a fosse to the front wall, he enters the low, dirty hovel, and a rush candle having been lighted, he creeps into the apartment separated from the rest of the cabin by means of a straw mat partition, and there, with scarcely a breath of respirable air around him, he has to prescribe for and comfort the wretched victim of Irish typhus. What follows? In hundreds of instances the physician takes the fever himself, and in many many cases dies of it, leaving his wife and family generally quite unprovided for. This is no fancy sketch or high-drawn imaginative picture. Hundreds have so caught fever, and numbers have so perished, victims to the system we are describing, martyrs to their courage and philanthropy. We have lately looked carefully into this matter, and can produce ample and competent authority for these remarks. In the *Dublin Quarterly Journal* for the year 1848, we find an Article on the Mortality of Medical Practitioners in Ireland by Mr. Cusack and Dr. Stokes, from information acquired and arranged by Mr. Wilde, where the matter is fully discussed, and by which it appeared, that within the four previous years 214 Irish medical men died of epidemic or contagious diseases, and of these, 199 were cases of typhus fever. After discussing some speculative questions with respect to the mortality of the Medical Profession, these gentlemen remark:—"A single fact, however, we feel to be of more importance than any of these calculations, which we leave others more versed in these matters to form,—and this fact is, that, during the year 1847, 178 Irish medical practitioners, exclusive of pupils and army surgeons, died; being a proportion of 6·74 per cent., or 1 in every 14·83 practitioners in a single year; and of this number, the great majority fell victims to disease contracted in the discharge of public medical duties."—Vol. V., p. 119.

Because much of the evil to which we have adverted is sought to be remedied by the Medical Charities Bill proposed by Sir William Somerville, it shall receive, as far as the Dispensary System is concerned, our cordial support. By it, as most of our readers are already aware, medical relief is to be provided by means of compulsory taxation, charged on the Poor-rates of the various electoral divisions, according to the Poor-law valuation in force at the time being. Thus, *all* the poor of the country, not the favoured few with generous landlords or provident agents, will be provided for,—the rating being equally diffused over the avaricious or the apathetic, will decidedly lessen the burden self-imposed on the amiable and the good. The medical man will be better paid; his salary will be secure; his district defined; his capacity for exercising his art and relieving suffering, by means of medicines, hospitals, dispensary-houses, and medical appliances, be increased; his own independence will be improved, and the Profession at large raised in public estimation.

The entire country is to be divided into dispensary districts, regulated according to the extent and population of such, but so arranged, that these districts shall be included within their respective electoral divisions, for the greater facility of taxation and local management. Thus far the system is evidently an offspring of the general Poor-law arrangement with respect to Ireland. How far it should be more immediately connected with it we shall consider hereafter, when discussing the question of the appointment of the Health Commission proposed to be established for the general regulation of public medical officers in Ireland.

DIFFICULTIES OF MEDICAL MEN.

We last week announced, that the widow of an eminent surgeon had been awarded a pension of 100*l.* a year,—a sum, we venture to affirm, very incommensurate with the services and merits of Robert Liston—a name that, independent of "storied urn and monumental brass," will live for ever in the annals of Surgical Science. There is no Profession so unprotected and so ill paid as that of Medicine; a tolerable fortune must be spent before any man can, in a legitimate way, attain the "*Summos honores Medicinæ;*" and, when he has so far succeeded, and enters into practice, what does he find? In deference to custom, he must pay an enormous rental for a house in one of the best localities. He must have a retinue of servants, and carriage and horses, to keep up appearances; and even then he will find himself jostled—perhaps outrivalled—by a crowd of competitors, many of whom, without having even matriculated in any University, still possess the effrontery, like Jack Brag, to stick a bright brass plate on their door, with the magic word *Doctor* inscribed in capitals; and, toil as he may,—whatever may be his professional skill,—how are his labours requited? In a pecuniary point of view, his patients, like Mr. Anti-Drench, grudge, when restored to health, every shilling expended in pursuit of that blessing.

Medical fees and bills are paid with a reluctant grace; and in comparison with any honest fishmonger or grocer, the professional man can acquire little or no fortune. Then, in respect to prospective honorary reward, there is no position in the State to which he can aspire. He generally dies poor, if indeed he do not leave his widow and orphan in "winnowed raggedness" to the mercy of some charitable fund. Compare his position with that of a lawyer. The most experienced solicitor, or the most talented barrister, may live in Chambers. He is not required to keep up a large and expensive establishment;—he may walk down to Westminster, or even, as Burke did, to the House of Commons, under a dripping umbrella, and never dream of keeping either a brougham or a chariot. His charges are all provided for, and fixed by a book of costs, and his income is in every way protected. More than this, from being a simple barrister he may rise to be Queen's Counsel or Queen's Sergeant; lay aside his stuff for a silken gown, and, step by step, be elevated to the Bench. If, however, he be not so fortunate as to obtain the next vacant judgeship, there is no end to the sinecure offices that are open to him. The patronage of the Lord Chancellor may provide him with a snug berth; a handsome stipend on some magisterial bench, or a comfortable independence as commissioner of some judicial court. The highest offices of State, nay, the Peerage itself, in like manner, are open to him; and a retired Chancellor or a Judge enjoys a pension of some thousands a year. "Look upon that picture and on this!" If medical men, who, from their position, can afford to set an example, would take the initiative—reduce their expenditure, give up living in noble mansions, be content with useful equipages, and live more economically, the public would still respect their talents and skill, even if they resided, as the most eminent lawyers do, in chambers; and we should not then hear of their widows and orphans being left dependent upon public charity and the niggard resources of an already overburdened Civil-list.

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THE JEALOUSIES OF JOURNALISTS.

If those may laugh who win, a successful rival can afford to smile at the impotent wrath of a deserted one. Last week an elderly Contemporary allowed her anger to blind her prudence; and in consequence, instead of falling quietly and composedly, and in a manner becoming so venerable a dame, she indulged in a little amusing, though spiteful abuse. Our aged friend must be aware how near she has approached that "bourne from whence no traveller returns," and that even the boiler of Medea would fail to rejuvenate her withered frame—that, in fact, she is all but moribund from inanition. Jesting apart, the *Medical Times* having supplied the desideratum of a widely-spread, scientific, and respectable weekly periodical, has received, as its columns testify, the *actual* support of a large majority of the first men in the Profession, many of whom had previously availed themselves of a medium through which their papers might appear—if without *widely*-spread fame, because of its limited circulation—at least without disgrace. The *Gazette* raves. *Hinc illæ lachrymæ*—a rival has won the prize!

While laughing on this subject, we will offer a word of advice to the conductors of that miserable starveling, the *Institute*. Abuse the *Medical Times*, gentlemen, as much as you please; it is but fair that you should have some pleasure to compensate for cash sunk and hopes frustrated; but avoid personal attack. For our part, we *did* suppose that those who had themselves been the subject of weekly vituperation would have been taught a better lesson, and have learned, that while the Profession weigh and respect argument, they see through, and despise attacks on individuals, dictated by mean and personal motives.

In conclusion, we recommend to both our Contemporaries, the excellent advice just given by our provincial brother to *his* readers and subscribers:—"Stifle jealousy, the love of detraction, envy, hatred, malice, and all uncharitableness." Reader, do you not suppose that the writer of that sentence must have murmured, as his pen wrote what his thoughts had dictated,

"Hei mihi! non possum hoc sine lachrymis commemorare?"

MEMOIR OF DR. JOHN REID.

[Continued from page 44.)

The first portion of this biographical sketch brought down the life of Dr. Reid to the Medical Session of 1836-37, when he delivered his first course of lectures on his favourite science—physiology.

The delivery of Dr. Reid, as a lecturer, is said to have been rather harsh, and with a peculiar intonation novel to English hearers; but his matter more than redeemed any singularity of manner. Latterly, his mode of lecturing became very much improved, and was hardly open to objection.

His power of arrangement was great; he has been known to go home to dinner at five, without a word prepared for the next day; he would sit up a considerable portion of the night, and in the morning would deliver a lecture replete with that sound judgment and lucid reasoning which characterised his more matured essays. For the first time in Edinburgh, he introduced experiments on living animals. This novelty led some persons to suppose that he was guilty of cruelty, but that was entirely at variance with his nature. Though he might occasionally give vent to some odd expletive, when the animals did not behave themselves properly and keep quiet, he has been seen to show the most marked repugnance to unnecessary torture, and even sympathy for the animals subjected to experiment. On one occasion in particular his heart failed him when about to put to death an animal then *in articulo mortis*, and it was some time before he could muster up resolution to destroy it. Another feature in his lectures was the admirable diagrams by which they were illustrated. For the moderate sum of 70*l.* he had acquired the excellent teaching museum of his predecessor, together with all his diagrams, and he turned them to the best account.

The circumstance which placed Dr. Reid in a chair of physiology was the means of rendering more accurate and greatly enlarging the field of knowledge in that department of science. It was a feature in his character, that he took nothing for granted unless he was perfectly satisfied with its truth; and, on investigating the opinions then entertained of the functions of the eighth pair of nerves, he was speedily struck with their confusion and want of connexion. This led him to investigate the subject for himself, and the results were, as is well known, of the highest importance. In all his experiments, Dr. Reid came prepared by long previous reflection and planning, as to what he intended to do, and everything that could tend to the correctness of the results, or obviate sources of fallacy was carefully thought over. When, however, difficulties did occur, or sources of fallacy arise,—and, notwithstanding every precaution, more difficulties presented themselves than could possibly have been expected,—he never for a moment allowed himself to be vexed or discouraged; he sought out the source of fallacy, or the cause of the difficulty, and tried again and again till he obtained results free from a shadow of doubt; and, as may be seen by his writings, he was particularly cautious in expressing himself as to merely negative results, however strongly these might seem to warrant certain conclusions; and, even in regard to positive results, he invariably tested them repeatedly before he committed himself to an opinion.

Another feature in the character of Dr. Reid was the moral courage with which he enunciated his observations. Having satisfied himself as to the truth of a fact, he most conscientiously advanced it, without regarding opposition or prejudice. It has been well said that in this world, if we undertake a thing, and mean to do it well, we must not stand shivering on the bank and thinking of the cold and the danger, but jump in and scramble through as well as we can. It will never do to be perpetually calculating risks and adjusting nice chances; life is too short for that; and, therefore, a man who from over nicety, or too much regard for the opinions of others, hesitates to advance what he believes to be true, will either see the fruit plucked by some more adventurous hand, or will consign that which, if published, might have added to the general stock of knowledge, to the tomb of still-born thoughts and crudities.

The following extract from a letter written to an intimate friend, bearing date the 22nd April, 1837, displays his feelings at the termination of this course:—"I embrace the first opportunity which presents itself after bringing the labours of the session to a close, to assure you, that, amidst all the hurry and bustle which I have been necessarily subjected to this last winter, I have not ceased to remember my old friends. I assure you that it was with no ordinary feelings of pleasure and satisfaction that I took leave of my pupils, for I had, for some time past, almost every lecture to prepare within the twenty-four hours. I did not grudge the labour; but of course I could not but feel keenly the unsatisfactory nature of such a mode of procedure, where I was obliged to proceed onwards, as one is whirled through an interesting country at railway-coach speed, without sufficient time for extensive or accurate observation. But I hope that I shall now have time to walk leisurely along, loitering when I list where the spot is sufficiently attractive, and diverging from the more direct road to any neighbouring height which promises a more extensive and interesting view of the plains below."

The nervous feelings with which he regarded his second course of lectures, is shown in this extract from a letter to Dr. Cormack, dated 23rd October, 1837. "I assure you that it is not without the utmost regret that I have denied myself the pleasure of visiting you at Stow, at this time. I hope you won't take it amiss; for I can confidently affirm that it has cost me a prodigious effort of self-denial in resisting the temptation. Nothing but the most urgent necessity could have kept me at home. I have only begun this morning to look at my lectures. My time, since you saw me, has been entirely occupied in writing the paper for *Craigie's Journal*,(a) and revising the *Heart*. I begin to feel so uncomfortable at the prospect of being obliged to resume the lecturing so soon, and again so ill prepared for it, that I could not enjoy myself so much as I otherwise would; but I confidently hope that my visits to the Manse of Stow, will, under more favourable auspices, be neither few nor far distant."

Though long previously planned and arranged, the actual experiments on the eighth pair were begun early in the summer of 1837, and the second series of experiments were performed in the summer and autumn of 1838. The results were published in the *Edinburgh Medical and Surgical Journal* for January, 1838, and April, 1839. Our space will not admit of our entering at any

(a) On the eighth pair of Nerves.—*Edinburgh Medical and Surgical Journal*, January, 1838.

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length into the merits of these masterly essays; but the following is an outline of the chief facts:—

The functions of the *glosso-pharyngeal* nerve was quite a battle-ground for physiologists before the time of John Reid. Some regarded it as purely motory; others as purely sensitive; and others, again, compromised the difficulty by assigning to it both properties. Dr. Reid has clearly proved that it is essentially an *afferent* nerve, one of its chief functions being to serve as the excitor to the act of deglutition by the impressions which it conveys to the fauces, while it is also the chief sensory nerve of the fauces and back of the tongue. In like manner, Dr. Reid has shown, that the proper roots of the *par vagum* are motor as well as sensory, the motor fibres going principally to the pharyngeal branches of the vagus, but that the superior laryngeal furnishes one muscle—the crico-thyroid—with motor filaments. The superior laryngeal furnishes the sensitive filaments to the larynx, and also some of those distributed on the mucous surface of the pharynx, whilst the inferior laryngeal furnishes the sensitive filaments to the upper part of the trachea, a few to the mucous surface of the pharynx, and still fewer to the mucous surface of the larynx. The principal function of the inferior laryngeal is to act as the motor nerve of the larynx. When any irritation is applied to the mucous membrane of the larynx in the healthy state, muscular contraction is excited by reflex action—the superior laryngeal being the incident, and the recurrent the motor nerve. An important series of experiments were tried to ascertain the effects upon the lungs of division of the nervi vagi. Dr. Reid had been led by the statements of Wilson Philip to believe that section of one pneumogastric would produce the usual morbid changes in the lungs which are observed after the section of both, but his experiments led to a directly opposite conclusion; none of the animals seemed to suffer any bad consequences from the operation, nor were there found morbid changes set up in the lungs; but, when *both* pneumogastrics are divided, the animal seldom lived beyond three days if the cut ends of the nerves were kept apart, but sometimes survived ten or twelve days if the ends were allowed to remain in contact. Contrary to the general opinion, Dr. Reid arrived at the conclusion, that the frothy serous effusion found in the lungs after division of the pneumogastrics, is the *result* of the congested state of the pulmonary blood-vessels attending the severe dyspnœa which precedes death, and not the *cause* of this dyspnœa. The explanation of the cause of death after lesion of the nervi vagi, is, that it depends on the great diminution of the number of the respiratory movements,—an explanation which has been adopted by Volkmann.

Another important point set right by Dr. Reid was, the relation of the gastric branches of the vagus to the process of digestion. Wilson Philip had taught, and others believed, that, if the nerves were divided, there would be a suspension of the process of digestion, from the non-supply of nervous influence which he imagined to be essential to the secretion of gastric fluid; and that the digestive process was in some way interfered with, was believed by all physiologists, though some difference of opinion existed on minor points. It was reserved for Dr. Reid to prove, that, if the animal be not killed by the effect on the respiratory organs, his digestive organs suffer but little from division of the nerves in question, the digestive process being gradually re-established, so that the animal may become fat.

In the course of these inquiries Dr. Reid performed upwards of a hundred experiments, and so well were they contrived, and so just the inferences drawn, that we believe there is no instance in which he has been proved to be wrong.

The researches of Dr. Reid must soon have become extensively known, yet, such is the neglect or ignorance with which some continental physiologists are accustomed to treat the labours of their British brethren, that we find Dr. Reid, though notoriously unobtrusive—even to a fault—of his own labours, roused to make the following complaint. We quote from a foot note at p. 273 of his "Anatomical, Physiological, and Pathological Researches. Edinburgh, 1848:—"In several works lately published on the Continent, the credit of first satisfactorily determining the relative share of the largyngeal nerves in moving the intrinsic muscles of the larynx is given to Longet; though my experiments, which are even more complete on this point than those of Longet, were published between three and four years earlier."

From the following letter, it would appear that Dr. Reid was present at the meeting of the British Association, held at Newcastle-on-Tyne, in August, 1838, under the Presidency of the Duke of Northumberland:—

"Edinburgh, September 18, 1838.

"I had the pleasure of seeing and talking a good deal with Vose during our late visit to Newcastle. We spent a very agreeable week I assure you. The feasting and gaiety were not the least inviting part of the proceedings. It is quite ridiculous to suppose that the members of the Association, after devoting all the earlier part of the day to the business of their sections, are not to eat, laugh, and make merry, like the rest of Her Majesty's well-behaved subjects, when the requisite duties of the day are accomplished. *Seria mixta jocis* ought to be the motto of every well-regulated mind, as well as of every association of individuals, met for their intellectual, moral, and social improvement. I had once the intention of passing last summer in Germany, and would have embraced the opportunity of making a run to London; but, alas, the best planned schemes of 'men and mice' are liable to be thwarted; more than one thing prevented me from putting that design into execution, and my duties at the Infirmary do not permit of me leaving Edinburgh for any length of time together. . . . You ask me if I have not yet thought of taking a sleeping partner? I am sorry to say that my financial affairs prevent me from taking the matter even into consideration. I am fully satisfied that every young man who can afford it ought to marry; for, if he has the good fortune to get a prudent wife, it may be productive of much happiness, and will prevent him from committing many follies. No person, however, who has any pretensions to common sense (and I flatter myself that I have a little Scottish caution about me) would involve himself in a matter where, not only his own happiness, but, what is of more consequence, the happiness of others near and dear to him are concerned, without serious reflection. A truce, however, to all such subjects at present, for it always strikes me as something ludicrous to hear two bachelors talking of the cares of matrimony, and moralising thereon."

In October, 1838, Dr. Reid had a most severe attack of illness, during which he was attended by Drs. Alison and Duncan. This illness he owed to his exertions in attending on an intimate friend(a) when labouring under fever. In the words of the patient:—"He slept all night for more than a week in my house, to relieve the anxiety of my poor mother; and I believe that to his promptitude (under God) I owe my life at that time; for, as you will see at page 206 of his work, my respirations had got as low as eight in the minute, when luckily he came in and at once applied blisters and other stimulants to put my eighth pair to work at their functions." Dr. Reid was still very unwell, and unable to leave the house, when the time, (November 1st) arrived for his recommencing his lectures. He had had severe hemoptysis, and was in a feverish and irritable state of health. In these circumstances, Dr. Cormack opened his class, and lectured for some weeks, after which Dr. Reid was able to continue the course.

Early in 1839 Dr. Reid was appointed Warden and Practical Pathologist at the Royal Infirmary, Edinburgh, at a salary of 80*l.* per annum, with board. Here he had much to contend with at first, for many irregularities existed, which he at once determined to reform, but met with that tacit resistance from certain quarters which was equally difficult to bear and to overcome. In the end, however, he gained his point; and the result was, the establishment of a system of order which has never been surpassed. The duty of making the *post-mortems* devolved upon him; and he introduced a system of registering the important facts connected with each case, together with statistical tables, the importance of which cannot be too highly estimated. Dr. Webster has recently drawn the attention of the Profession to the deplorable neglect which has hitherto prevailed in all the metropolitan hospitals with respect to a record of their cases, so that we may seek in vain for the treasure beyond price which would have existed had particulars been kept of the hospital practice of Cheselden, Hunter, and Pott, of Abernethy and Cooper, of Baillie and Mead. We trust, however, that this stain will soon be removed, and that the system first introduced by John Reid, at the Edinburgh Infirmary, will become general throughout the hospitals in the British dominions. His plan was as follows:—In a register were entered the name, age, occupation, and residence of each patient; the disease, its duration (both before and after admission), and the result. The first four items Dr. Reid procured by a nightly visit to each ward; the others, from returns of the medical officers after the patients had left the house. Notwithstanding there was an express order that a record of each case should be kept by each Resident Clerk or House-surgeon, this was greatly neglected.(b) Dr. Reid therefore memorialised the managers to enforce the performance of this

(a) James Spence, Esq., the eminent surgeon and physiologist of Edinburgh, who was intimately associated with Professor Reid in all his experimental researches, and whose works have greatly added to our knowledge of the anatomy and physiology of the nervous system.

(b) The Resident Clerks, we have heard, were before this period, and perhaps after it, frequently students in the second and third years of study; or else they were young men reading up for their examinations, and therefore too fully occupied to perform with zeal duties both laborious and irksome.

day, and, to insure it, requested them to direct that the journals should be sent to him every Saturday, that he might report to the Board at its weekly meeting on the following Monday. By the register of cases, he had a perfect check over every omission in the journals, and the return made to the weekly Board left no loop-hole for carelessness or omission, as it not only stated the number of cases admitted, with the names of the medical officer and clerk, but also the number of cases entered in the index and the number of cases taken,—thus each department checked the other. By the returns of the clerk, he could detect any omission on the part of the nurse in reporting a new patient at his nightly visit, and those visits checked any omissions in the journal. Great was the surprise of Sir Charles Bell, on examining the first collection of returns, extending over a period of three or four years, to find that not a single primary amputation of the thigh had recovered during that time! In the arrangement of the important statistical details founded on the vast mass of valuable information thus brought together, Dr. Reid received great assistance from Dr. Gilchrist, of Leith, and from his brother, Dr. Henry Reid, now of Manchester.

One of the improvements introduced by him was the system of weighing each organ of the body, so that more certain data should be afforded on this hitherto neglected subject. He thus ascertained the weight of the entire encephalon, of the cerebrum and cerebellum, with and without the pons Varolii, in 253 subjects, and also weighed the heart, liver, and kidneys, in 142 subjects. Among the adult male brains which he weighed, he found as great a difference as 28½ ounces between two brains—the one being 12½ ounces above the average, the other 16¼ ounces below it. From all the facts collected, it would appear that the brain approaches its maximum weight sooner than the other organs of the body, and that the relative size of the brain to the other organs and to the entire body is much greater in the child than in the adult, and that there is a decided diminution in the average weight of the brain above 60 years of age in females, in males somewhat later. Dr. Peacock has ably carried out these researches of Dr. Reid. He also made careful examinations of the bodies of forty-seven patients who died of typhus fever, and embodied the results in a most valuable paper on the "Pathology of the Continued Fever of Edinburgh." In this he mentions the singular fact, that no ulcerations of the intestines occurred in the ordinary Edinburgh fever, and that when they were found the patients were always strangers. These researches have an important bearing upon later researches, which have been made in the Edinburgh Infirmary, into the pathology of fevers, and also upon the recent elaborate investigations of Professor Jenner, of London.

[To be continued.]

REVIEWS.

Descriptive and Illustrated Catalogue of the Histological Series Contained in the Royal College of Surgeons of England. Vol. I. Elementary Tissues of Vegetables and Animals. 4to. Pp. 305. London. 1850.

Although we have frequently spoken in disparaging terms of the conduct of the Council of the Royal College of Surgeons, our animadversions have been directed chiefly against their political acts, and the bearing of those acts on the education and status of the great mass of the Profession. But when our duty is to speak of the general management of the College itself, in relation to science, our labours are such as afford us no small pleasure. There is in that department of the College of Surgeons little to blame and much to praise.

Enter the portals of the College, and how do we find its halls occupied? By a pathological and an anatomical museum unrivalled in the whole civilised world; by a scientific library, second to none in the British dominions, and all other parts of the building subservient to these. With such facts before us, can we say that the Council of the College have not been careful to place within the reach of its members the materials for profound study? Added to these silent but expressive means for acquiring sound knowledge, we have the lectures of Professors Owen and Paget, and the equally interesting and important demonstrations of Mr. Quekett, the author of the work we are about to introduce to our readers.

The microscope, an instrument invented at the time when men were emerging from the mental gloom of the middle ages, was at once appreciated as a powerful means of investigating the structure of animals and plants, by the most enlightened anatomists of that period. Leuwenhoek, with the ardour which a new means of investigation presented, examined everything that fell under his notice, but without system. The great Malpighi followed in his course, but with a higher philosophical spirit, and has left behind him a collection of memoirs, containing as accurate descriptions and figures of the structures of organised beings as could be accomplished by means of the imperfect instruments then in use. Other microscopic observers there were, but none of such reputation as the two we have mentioned. By a curious fatality, the employment of this instrument fell into almost complete disuse until within the last half century, when, after having undergone vast improvements, it was fitted for the delicate and difficult task now imposed on it—the unravelling of the mysteries of minute organisation, and the changes to which the solids and fluids of the body are subjected by disease. No plant, from the lowest fungus or alga to the most perfectly developed flower or tree; no animal, from the monad to man, is exempted from the searching gaze of the anatomist or phytologist. But the animal or vegetable anatomist does not look upon the minute structures presented by the microscope as merely curious objects; on the contrary, he collates and compares them with others of the same or other classes of plants or animals; and, finally, the general anatomist or physiologist, reasoning on the data furnished by a multitude of observers, evokes the general laws which preside over the formation and development of the whole organic world. Individual observations, the examination of the structure of the lower plants or animals may, in their isolated condition, appear to most men an idle and frivolous waste of time and labour; and truly we are compelled to admit, that did they remain in this same isolated condition they would be useless; but when we contemplate the "vast chain of being," in its entire extent, we discover that the simple form and structure of the lowest tribes elucidates the more complex organs of the highest and most developed; so that, however paradoxical it may appear, the careful examination of the fungus or sponge contributes its quota to the determination of the structure of man himself. The microscope enables us to discover the minute structure of the organs in their normal condition; the same instrument enables us to determine the visible changes which organs and their secretions undergo in their abnormal conditions; but, in order to the clear understanding of abnormal states, the normal structure must be exactly defined; and this is the aim and object of histological research.

The importance of histology to the science and practice of medicine, has tempted us to exceed our allotted space in placing before our readers the foregoing general observations. We hasten to our proper subject, premising the brief notice of the histological collection of the College of Surgeons, given in the Preface to the Volume:—

"The Council deem it worthy of notice, in connexion with the manifold obligations which science owes to John Hunter, that the nucleus of this series, consisting of 160 specimens, prepared by William Hewson, constitutes an original portion of the Hunterian Collection. But it was in the year 1841, that the Council were first enabled to prosecute effectually the design which they had conceived of aiding and encouraging the use of the microscope; and with this view they purchased the collection of the late Dr. Todd, of Brighton, consisting of 1558 specimens of comparative anatomy, natural history, and pathology. Having thus far succeeded in securing the foundation of the histological series which they proposed, they next obtained by purchase, in the year 1846, 2500 specimens of elementary tissues of plants and animals, prepared by Mr. Quekett previously to his appointment as Assistant-Conservator.

"In the ensuing year, Mr. Quekett commenced the arrangement of the new series, with a view to its explanation and description; and in order to supply the want which had become apparent in the progress of his work of systematic continuity and scientific completeness adequate to the contemplated purposes of the collection, his labours were directed to this scarcely less than indispensable aim, and the result was the addition to the collection of 1280 specimens. The Council desire also to acknowledge the liberality of various donors, whose valuable contributions have further enriched this department of the Museum; and they have the satisfaction of announcing, that the histological department now contains no less than 6838 preparations, forming a collection calculated to meet the most pressing needs of the student of microscopical anatomy.

"The Council, in pursuance of their plan of providing the

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main requisites for instruction in this branch of scientific inquiry, and having had the good fortune to secure the services of Mr. Quekett, whose eminent ability in microscopic researches is universally acknowledged, had the satisfaction of appointing him, in the year 1844, to deliver annually a course of demonstrations, with a view to the exhibition and connected description of the collection, and to the explanation of the methods and resources of microscopical study.

"The Council have subsequently entrusted to Mr. Quekett the responsible duty of preparing, under the superintendence of the Museum Committee, the Catalogue descriptive and illustrative of the Histological Series."

Which is the work before us, the whole and entire merit of which belongs, in our opinion, to Mr. Quekett. This volume contains a description of 404 specimens of elementary tissues of plants, and 762 specimens of animal tissues, to which representations of more than 400 specimens, drawn truly to nature by the aid of the microscope and camera lucida, are appended.

The arrangement of so large and so heterogeneous a mass of preparations, derived from all classes and orders of organized beings, living and extinct, must of necessity have been attended with considerable labour and difficulty; and Mr. Quekett deserves unqualified praise, not only for the original portion, but also for adopting, without reserve, the best arrangements of other authors, with a characteristic frankness and negligence of personal aggrandizement which would have tempted many men in his position to have framed a new, and perchance a less perfect, classification.

The first volume, containing the commencement of the Physiological Series of the collection, is divided into two main divisions: the first devoted to the Histology of Vegetables; the second to the Histology of Animals. The first division, embracing the primary or elementary tissues of plants, is again subdivided into nine series; and each division and series is prefaced by a brief exposition of the nature and characters of the tissues described in it, and illustrated in the plates. These prefatory observations are most valuable in directing the attention of the reader to the most remarkable characters of the tissue, and the variations in character produced by the class of beings in which it is found; by the locality of the tissue, and by the uses to which it is applied.

The first series of vegetable preparations is occupied with the illustration of membrane and its varieties; the second treats of vegetable fibre; the third, of cellular tissue, or parenchyma, including the variations in forms of cells and their contents, of colouring matter, starch, and raphides; the fourth describes fibro-cellular tissue; the fifth, ducts and porous tissue, with their modifications; the sixth, woody fibre and its varieties; the seventh, vascular tissue, including spiral, annular, reticulate, scalariform vessels and ducts; the eighth treats of lactiferous tissue, or the cavities in the cellular tissue of certain plants filled with a milky juice; and the ninth is occupied with the description of the hard vegetable tissues, which possess considerable interest to the animal physiologist, from the striking analogy existing between them and the hard tissues (bone, &c.) of animals. So striking, indeed, is the analogy in some cases, (that of the stones or outer coverings of fruits and seeds, for example, with the tissue of bones,) that a section of an apricot or nut-shell might be, and has been, mistaken for a longitudinal section of bone by incautious or inexperienced observers; and it is by no means improbable, although not as yet demonstrated, that the deposit of the earthy part of the bone occurs in precisely the same manner as the vegetable sclerogen. A short extract from the prefatory observations on this series will, at one and the same time, bring the subject before our readers, and give an illustration of the author's style:—

"Although all the specimens which will be included under this head belong strictly to one or other of the series already described, yet as they resemble, to a certain extent, the horny tissues of animals, it has been thought proper to classify them under the name of hard tissue, as a corresponding series will be included in the histology of animals.

"The hard tissue consists of cells of various shapes and sizes, whose walls have become thickened by an internal deposit of secondary matter, termed *sclerogen* by Turpin. This, as before stated, may take place in a homogeneous form, or in concentric strata, so as either to fill up the whole interior of the cell, or certain radiating canals or pores may be left in the deposits, all of which communicate directly with the central cavity of the cell; but although they frequently branch, yet they never communicate, like bone corpuscles, with the canals of adjoining cells, the cell-wall being always present and forming a line of separation between them."

The second division, entitled "Histology of Animals," is occupied by a description of the preparations illustrative of the primary tissues of animals, in which the arrangement of Todd and Bowman, in their "Physiological Anatomy," is followed with some modifications. In the First Series, examples of membrane are given, either simply extended as in the posterior half of the capsule of the crystalline lens, as a sheath in the sarcolemma of muscles and the neurilemma of nerves; or in the form of cells, in the blood-discs, the chorda dorsalis, and fat-cells. The Second Series treats of fibrous tissues, which are divided into white and yellow; the latter elastic, the former inelastic. The white fibrous tissue is illustrated by preparations of tendon and periosteum, the yellow by the ligamentum nuchæ, the ligamenta subflava, &c.; and other preparations exhibit the arrangement of minute blood-vessels in each of these forms of tissue. Some preparations of the elastic ligament of bivalve shells, and the membrana putaminis of the egg, complete the series of fibrous tissues. Areolar tissue forms the subject of the Third Series, although it really consists of white and yellow fibrous tissue in very uncertain proportions, these variations depending on the locality from whence the areolar tissue is derived.

"When examined microscopically," says the author, "it is found to consist principally of unbranched wavy threads of extreme minuteness, rarely occurring singly, but mostly united into bundles, which intersect each other in every possible direction; but the fibres of one bundle never anastomose with those of another, although the bundles themselves frequently do. This may be considered as the white inelastic element of the tissue, and, like that before described as occurring in tendons, the individual fibres can rarely, if ever, be separated from each other. In some specimens, the fibrous appearance of the bundles is even so minute as to be scarcely visible, except with the highest powers. A second, but less common element is also found in areolar tissue. This is the yellow elastic tissue, which consists of long branched filaments with curly extremities; these may readily be seen in any specimens by adding acetic acid, when the white fibres in a great measure disappear, and the yellow, not being acted on, are brought plainly into view. The acid also brings out a few rounded and oval corpuscles; these are seated chiefly in the areolæ; others are sometimes seen in rows, attached to the outer surface of the bundles, or even stretching some little distance along their interior; these last are usually considered to be the nuclei of the cells from which the white fibrous element was originally developed, and are most numerous in certain tumours connected with the skin, that are undoubtedly of a fibrous nature."

The subject of the fourth series is cartilage, which is exemplified under two heads—membraniform and articular. The subseries of membraniform cartilage is again subdivided into cartilage without any intercellular substance, seen in the chorda dorsalis of fishes and some reptiles; membraniform cartilage with equal-sized cells in the cartilages of the ears of bats and mice; and membraniform cartilage, consisting of cells imbedded in a matrix, as in the cranial and costal, tracheal and laryngeal cartilages of cephalopods, fishes, reptiles, birds, and mammalia, and cartilaginous tumours, called enchondroma. The second subseries of articular cartilage is illustrated by numerous specimens from all the classes of vertebrated animals. Adipose tissue and fat are illustrated in the fifth series. Adipose tissue is made up of a congeries of cells, either rounded or rendered angular by pressure, between which congeries of capillaries are disposed. The preparations embraced in this series are derived from different classes of vertebrate and invertebrate animals. One specimen is extremely interesting to the pathologist, that of a small portion of marrow from the lower extremity of a human tibia affected with mollities ossium, which consists of cells of the usual shape full of very liquid oil. The author remarks:—

"It appears to be a striking character in this disease, that as the bone becomes thin and cancellated, all the cells are filled with a very fluid marrow, so that mollities ossium might almost be considered as a fatty degeneration of bone."

Pigment occupies the seventh series. The pigment itself consists of spherical or oblong granules, always enclosed like the fat in cells. These are exhibited in the skin, the choroid, the peritoneum of reptiles, in melanotic tumours, and in that peculiar exudation which very rarely occurs

from the skin. The seventh and concluding series is not completed in this volume. It illustrates the structure of the skeleton from the silicious skeleton of plants and animalcules upwards to the cephalopods, leaving that of the vertebrate animals for the second volume. The peculiar silicious and calcareous spicula of sponges are very fully illustrated; these of the zoophytes, the scalephæ, the echinodermata insects; crustacea, annelida cirrhopoda, and mollusca, follow in succession, and the volume concludes with an account of preparations illustrative of the structure of pearls.

The plates, eighteen in number, contain, as we have already seen, figures of more than 400 specimens. The principal feature of these figures is their extreme accuracy, and trueness to nature. They might have been rendered more *artistic* in appearance, as they are in some other works we could mention; but we can aver, that what they would have gained in *beauty*, they would have lost in fidelity. When looking at one of these figures, you see the specimen itself; so great has been the care bestowed in insuring their accuracy by the artist who drew them, and by Mr. Quekett, who constantly directed the artist's eye, and pointed out and corrected any exuberances or deficiencies that an artist, who is not an anatomist, is apt to place on paper.

All the figures are drawn to a scale, and the magnifying power employed in the examination of each specimen is stated on the plate, so that the relative magnitude of each form of tissue can at once be seen.

We cannot take leave of this first instalment of a magnificent work, without tendering our thanks to the Council of the College for the liberality which it has shown in publishing a work useful even to those who may never have the opportunity of seeing the collection itself at a price which must be attended by pecuniary loss, and which no ordinary publisher could undertake; to Mr. Quekett, for the masterly manner in which he has edited this work; and to the artist, for the care with which he has depicted the accompanying figures. Apart from the consideration of the individual specimens this catalogue will, when completed, take the first place as a body of microscopic anatomy.

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1. *Appendix (A) to the Report of the General Board of Health on the Epidemic Cholera of* 1848 *and* 1849. By Dr. Sutherland. Pp. 164.

2. *Appendix (B) to the Report of the General Board of Health, &c. &c.* By Mr. Grainger. Pp. 201.

We have already reviewed the Report of the General Board of Health, to which the above elaborate documents are Appendices. Dr. Sutherland and Mr. Grainger were the two most active inspectors of the Board during the prevalence of cholera; and their Reports on the duties they performed are very valuable. Of the two, Mr. Grainger's is the most complete; although Dr. Sutherland's work imbodies much research, and contains much useful information. Mr. Grainger's duties having been directed chiefly to the metropolis, he has confined himself to the consideration of the disease as it appeared in London; and his report constitutes the most elaborate account we are likely to have of the attack of cholera in this locality. He has, however, discussed more or less fully the various great questions connected with cholera, such as the relations between cholera and other epidemic disease, the progress of cholera, the various influences exerted upon it by external circumstances, its primary seat, &c. Some maps and statistical appendices are also given, which greatly increase the value of the Treatise. Dr. Sutherland's Report details the outbreaks of cholera in Edinburgh, Dumfries, Glasgow, Bristol, Taunton, and other places; and, in addition, many interesting accounts of the circumstances attending various minor outbreaks of cholera are related. Both authors devote much space to the important topic of the premonitory diarrhœa, and the possibility of arresting this. We abstain at present from entering into this subject, as we believe we shall have occasion shortly to go fully into it; but we may express our opinion, that the plan has been productive of good, and will be productive of still greater good, although we are not clear that it can work such wonders as its advocates suppose. Nevertheless, Dr. Southwood Smith is entitled to public thanks for the zeal and perseverance with which he has urged the house-to-house visitation, and for the perspicuity which led him to perceive its importance. We have heard inquiries in several quarters, why the Reports of the other inspectors have not been published. The name of Mr. Bowie has been mentioned to us as an active and zealous servant to the Board of Health, and we have been informed that he forwarded a Report of his services and experience during the epidemic. We think the General Board should allege some reason for receiving the communications of some of their officers, and rejecting those of others.

SELECTIONS FROM FOREIGN JOURNALS.

LOCAL TREATMENT OF RHEUMATISM.

In a memoir read by M. Aran before the French Academy, we find some interesting details of the treatment of rheumatism by the local application of chloroform and other anæsthetics. A compress, on which chloroform is dropped, is applied tightly round the painful joint. After a slight burning sensation, there ensues, in a space of time varying according to the severity of the disease, complete removal of pain, followed speedily by diminution of the redness and swelling of the part. The chloroform must be repeatedly applied, and the other usual plans of treatment must be carried on at the same time. On account of its vesicating properties, M. Aran has somewhat discarded chloroform, and uses instead the "Dutch liquid."—*L'Union Med.*

SUFFOCATION BY CARBONIC ACID.

M. Brierre de Boisment relates, in a late number of *L'Union Médicale*, the following curious document, written by a French officer who committed suicide, by the usual French method of burning charcoal. It commences thus:—

"I pretend not to show an excess of courage or fear (as some may deem it), but I desire to employ the few minutes which still remain to me in describing the sensations, and the duration of the suffering, that are experienced in death from asphyxia. If this is useful, my death will at least have been of some service. If I stop short in this intention, it will not be from pusillanimity on my part, but simply from an impossibility of continuing, or because I shall prefer to hasten the catastrophe.

"31m. past 7 (evening).—Misery still follows me. I am nearly five hours behindhand in the execution of my object. I have been delayed by troublesome people, whom I have been obliged to admit, lest anything should be suspected.

"7h. 45m.—Everything is now prepared. My pulse beats from 60 to 61 times per minute. I light a lamp and a candle for the purpose of seeing which will be soonest extinguished. I entreat the *savans* to be indulgent if I do not employ the appropriate terms. At eight o'clock I shall light the charcoal fire.

"7h. 55m.—The pulse beats 80 times per minute.

"7h. 58m.—The pulse beats 90, and often more.

"8h.—I light the fire.

"8h. 3m.—The chauffer is extinguished. I am obliged to relight it with paper. Slight pain in the head.

"8h. 9m.—85 pulsations. The chimney of the chafing-dish falls.

"8h. 13m.—The headache increases; the room is full of smoke; it gets down the throat; pricking in the eyes; feeling of constriction in the throat. 65 pulsations.

"8h. 20m.—The fire burns briskly.

"8h. 22m.—I inhale a little ammonia; it does me more harm than good. The eyes are filled with tears.

"8h. 23m.—I feel a pricking in the neck; I begin to suffer.

"8h. 25m.—I drink a little water; I can scarcely breathe; I stop my nose with my handkerchief.

"8h. 32m.—Since I plugged the nose I feel better; the pulse beats 63 times.

"8h. 33m.—Both lights begin to burn dim; I overturn the water, which it gave me so much pleasure to drink.

"8h. 35m.—The headache augments; I feel a shivering in every limb.

"8h. 40m.—The light of the candle is dimmer than that of the lamp; a single furnace burns well; the pan does not burn.

"8h. 42m.—The headache is more violent; the lamp

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burns better, in fact I trim it occasionally; the pan lights up again; I have a great inclination to sleep.

"8h. 49m.—When I plug the nostrils, the eyes fill quickly with tears; the candle scarcely burns; there is a great ringing in the ears.

"8h. 51m.—The candle is almost out; the lamp still burns; I am sick; I should like water.

"8h. 53m.—I suffer in every part of the body; I plug the nostrils more strongly.

"8h. 54m.—The candle is out; the lamp still burns.

"8h. 56m.—81 pulsations; my head is very heavy; I can hardly write; the fires burn well.

"8h. 58m.—My strength forsakes me; if I had water I should take it; the lamp still burns; the headache augments; the oppression redoubles.

"9.—I make a last effort; I have taken water, but it is done; I cannot walk straight; I suffer horribly; the lamp still burns.

"9h. 1m.—I am a little better; I shall drink; the lamp begins to go out. Delirium seizes me.

"9h. 5m.—The——"

This singular record is even more interesting than that which lately appeared in the *Times* newspaper, as there is not the least evidence of insanity.

PATHOLOGY OF THE BLOOD.

Dr. Gorup-Besanez has published some interesting researches on the composition of the blood in various maladies. The following are some of the results which he has obtained:—

Influence of Etherisation.—The experiments were made on rabbits and goats. Great numbers of the blood corpuscles were puckered, and the blood itself gave out a strong odour of ether. The corpuscles were diminished and the serum increased in quantity.

Bright's Disease.—The only constant appearance was diminution of the albumen. Urea was found in one case.

Abnormal Sounds in the Veins.—The author has made numerous experiments to determine how far the abnormal sounds heard in the veins may be connected with the composition of the blood. He examined the blood in nineteen individuals who presented this *bruit de souffle*, though not labouring under chlorosis; and comes to the conclusion that it bears no relation whatever to the state of the blood.

Pseudo-plasma.—Dr. Besanez criticises, in a very severe manner, the doctrine advocated by MM. Lebert and Sedillot relative to the specific element of cancer. There is no such thing as a cancer cell, and the nature of the disease must be determined by the arrangement and development of the elements, not by any specific structure; still the arrangement of the elementary matters will enable us to distinguish cancer, although the matter itself present nothing specific.—*Archiv. fur Phys. Heilkunde.*

M. SEDILLOT ON BLUE SUPPURATION.

The matter discharged from suppurating wounds, the urine, milk, perspiration, &c., have occasionally presented a blueish colour, the cause of which remains unknown. M. Dumas supposed that it arose from the production of hydrocyanic acid, but this was soon shown to be an error. It was also thought that the colour arose from the development of a peculiar fungus, the *agaricus nosocomiorum;* but Professor Fee, of Strasbourg, was unable to detect any such organic matter in the blue pus submitted by him to the microscope. Nine cases of blue suppuration have occurred in the practice of M. Sedillot. After various experiments and careful observation, it was discovered that the blue colour did not arise from the pus, but from an accidental colouring matter which was developed and acted on the dressings. This colouring matter is probably formed by the serum of the blood; indeed this would appear to be certain, for the blue colour was produced when all the other elements of pus were eliminated. The various experiments performed by the chemical professors at Strasbourg to ascertain the nature of this colouring matter, show that it is probably of vegetable origin. It does not arise from the formation of prussian blue or phosphate of iron; it is soluble in water, and, at the same time, extremely stable, not being altered by sulphurous acid.

M. Sedillot inclines to think that blue perspiration, urine, &c., depend on the same cause, viz., some change in the serum of the blood.—*Gaz. Méd. de Paris.*

PROVINCIAL CORRESPONDENCE.

SCOTLAND.

MESMERISM IN EDINBURGH.

EDINBURGH has been invaded by a sudden mesmeric epidemic. Two transatlantic Professors, the one white, the other of colour, have sent the wits of many among us a wool gathering. To do the professional mesmerists justice, we must say they have sunk the grosser delusions of their art before their Edinburgh audiences—clairvoyance and its sister absurdities have not been produced on this, as on some former occasions, on our mesmeric stage. This sacrifice we should perhaps interpret as a compliment paid to the old scientific character of the town. Be this as it may, the limitation of the field of mesmerism to things within the bounds of rational belief, has drawn not a few sober-minded people to examine into the alleged facts, and to scrutinize the evidence on which these rest. Sir David Brewster and Professor Bennett have entered the lists in the newspapers *pro* and *con* in the cause of mesmerism, and we even hear that parties alike distinguished have argued the matter, in sober earnestness, before drawing-room audiences, while triple rows of silent ladies stood around, hanging upon their lips. We understand that the extent to which many of our common sense fellow-citizens have come to believe in mesmeric phenomena is something after this fashion:—that a small proportion only of mankind, or at least of the inhabitants of this country, is decidedly susceptible of mesmeric influences—that of this proportion, some are much more largely and readily affected than others—that such persons, by various forms of manipulation, and even by simply fixing the eyes upon a point, can be brought into a state in which their own volitions, sensations, and emotions become surrendered to the will of the mesmerist, and that this state lasts during his pleasure.

Among the instances supposed to be made good as facts during the late exhibitions, are the following:—that the arm of a susceptible person being stretched out at right angles to the body, can be rendered cataleptic to the extent that it will remain in that outstretched state, in spite of the efforts of the owner to let it drop, till it please the mesmerist to dissolve the charm; that a susceptible person may be made to put one foot across the other, notwithstanding his efforts to keep it on the floor; and, *vice versâ*, that he may be deprived of the power to put the one foot across the other, if it be the mesmerist's desire that it should remain on the floor; or that the fists may be made to spin round each other against one's will, or be rendered powerless for that movement, at the desire of the operator; again, that a susceptible person may be made to believe that plain water is sweet or bitter at the bidding of the mesmerist; that the arm or any other part of the body may be rendered insensible to the pain, for example, of pinching; or that the subject may be at once put fast asleep, so as to be incapable of being roused by violent shaking, or loud shouting, or ringing a dinner-bell in his ear; and lastly, that he may be forced to laugh or weep, or may be restrained from laughing or weeping, as the operator thinks fit.

In Sir David Brewster's letter, in the *Edinburgh Courant* of December 28th, he refers to the case of an officer of whose veracity he is satisfied. He does not mention how this officer was affected; but we believe the singular delusion alleged to have been impressed on this gentleman was, that a piano was a horse, which he intended to buy, for which purpose he went forward in a business-like way, and attempted to take up the feet of this supposed horse for examination. Another delusion not inferior to this is stated to have been witnessed at one of Dr. Darling's public exhibitions. A citizen was persuaded to believe that he was engaged in angling; and, advancing with composure to the edge of the platform, he went through the motions of throwing out his line with a rod, of drawing it out, removing a fish, and re-adjusting his flies.

The question, then, is, are these so-called susceptible parties deceived or deceivers? and in reply, much might be said on either side. People who maintain an honest character in general entertain no great scruples on the score of trotting or duping the credulous; and moreover there are some individuals in the world,—how many per thousand has not been ascertained,—who have a positive pleasure in imposition. On this latter point, the history of ghost stories and hoaxes in general leaves no room for doubt. There is nothing which cannot be proved by sufficient evidence; but there is no rule which compels the belief of what is affirmed on the mere inward experience of one individual. No man, then, is bound to believe that these parties speak the truth so long as each alleged fact rests on no more than a single testimony. But in the mean time we may treat the case as a hypothesis—we may assume that the so-called susceptible parties speak the truth, and on that

supposition inquire, on general grounds, what must be the nature of the state into which the alleged mesmeric influence puts them. On the assumption, then, that for a time certain volitions, sensations, and emotions, in a susceptible person, become surrendered to the direction of the mesmerist, what is the nature of the pathological state under which this is produced? That it must be a pathological state, that is, a state of disease, is undeniable, were there no other ground for saying so than that the susceptible are manifestly of an exquisitely nervous temperament—that temperament being universally acknowledged to belong to the class of morbid temperaments. But this mesmeric state, as a pathological or morbid state of the nervous system, plainly must take its place by the side of trance or catalepsy, ecstasy, dreaming, night-mare, somnambulism, spectral illusions, hysteria, epilepsy, and even insanity. It cannot be correctly said that the Medical Profession were acquainted with the phenomena of mesmerism before Mesmer arose—these phenomena, if real, must be regarded as constituting a new disease, produced in certain parties under certain circumstances, being, nevertheless, strictly analogous to morbid states long known as arising under causes many of which are of a closely similar character. It is reasonable to believe, that owing to the common character of the human nervous system, all men are born susceptible, not merely of dreaming and night-mare, but even of catalepsy, ecstasy, spectral illusions, somnambulism, hysteria, epilepsy, and insanity; and that, while a certain small proportion only of mankind really suffer from the latter maladies, the rest escape, solely because the causes or circumstances necessary to excite these diseases in them do not happen, by the course of their lives, to be applied in sufficient force. That is, for example, that a man escapes being attacked with epilepsy during his whole life, not because he is not predisposed by his organisation to that disease, or because he is not often subjected to the causes which produce it in some other individuals, but because the exciting causes do not happen to be applied in his case with a force inversely corresponding to the lesser degree of his predisposition.

The close alliance between the predispositions to the morbid affections just enumerated, is marked by the striking circumstances, that the same individual often suffers from the whole of them, one after another, that the tendency to each is capable of acquiring new force by cultivation and indulgence, and that all of them may pass into a habit of the constitution. There can hardly be a doubt that the mesmeric tendency, if it be real, belongs in all respects to this alliance of morbid states of the nervous system, and that it is governed by similar laws. It ought not then to be doubted, that the tendency to the mesmeric state, like the tendency to these, may be cultivated so that it shall finally be produced by slighter causes than were necessary at first. Nor is it going too far to say, that the cultivation of a morbid tendency of the nervous system, like what the mesmeric tendency, if real, must be, may largely increase the natural tendency to such serious diseases as epilepsy and insanity. How does insanity differ from dreaming, except that action is precluded in the latter by the presence of sleep? And how does the mesmeric state, here assumed to be true, differ from dreaming, except that the train of thought and action is governed by the words uttered by the mesmerist instead of being the result of circumstances, accidentally put into the mind of the individual during sleep. Is it a rational thing for a man who knows that, like the rest of his species, he is born susceptible of madness to submit voluntarily to a state in which, as in madness, the usual control over his feelings, thoughts, and acts, is suspended. To cultivate the mesmeric tendency, if real, is at least no more rational, than it would be to improve the tendency to epilepsy, and the other members of the alliance before referred to. And if the excuse be, that the cultivation of this tendency promises to throw light on some of the general laws of the animal economy, what would be thought of an attempt to investigate the laws of epilepsy, hysteria, or insanity, by experimental trials on the readiest modes of throwing susceptible people into these dreadful diseases. There is good ground for the belief which prevails in the medical Profession, that persons who take the requisite pains to acquire the power of imitating epilepsy with any degree of exactness, as is done occasionally for malingering purposes, finally become really epileptics. What use can mesmerism be applied to, which chloroform cannot more effectually accomplish?

Sir David Brewster, in his letter to the editor of the *Edinburgh Evening Courant*, appears to think that the study of mesmeric phenomena may lead to the discovery of some general law by which its processes act on the mind; and he refers to the views of Dubois, Reymond, and Matteucci, as to the laws which regulate the relative intensity of the external and internal impressions on the nerves of sensation; and further says, that there are in the mesmeric phenomena no very indistinct indications of minds of a peculiar sensibility being placed temporarily under the dominion of physical influences, developed and directed by some living agent. What Sir David refers to in the latter of these two passages, must be the effect which electric force, or some similar physical agency, developed in the animal acts of one individual, may produce, by becoming a stimulant to the nerves of another individual. The phenomena of the galvanometer-frog put into communication with the muscles of another frog during their contraction, will sufficiently illustrate this idea for our present purpose. If, with certain precautions, the crural nerve of one frog be dissected so far free, that its extremity may be brought into contact with the thigh or thighs of another frog, and if the thighs of the latter be excited to contract even by a mechanical stimulus, then the leg of the first frog will be thrown into contractions by the stimulus conveyed through its nerve from the muscles with the surface of which it is in contact; that is, a physical influence generated during muscular contraction in one animal, causes muscular contraction in another animal, when the nerve of the latter animal can be made to convey that physical influence. One may suppose, then, that Sir David thinks it possible that a physical influence developed in the living system of the mesmerist during his operations, may be so conveyed to his subject as to give origin to corresponding motions, sensations, and acts of mind in him. But under this view the mesmerist is merely an electric battery discharging itself on the mesmerised person; there can be no exact correspondence between the discharges of the effect of which the subject is sensible, and the particular acts of the mesmerist, on which these are conceived to be dependent; or at least the subject could not learn to distinguish and interpret each discharge or groupe of discharges, as the result of a particular combination of volitions and sensations, without an education like that by which a person learns the signification of articulate speech. Nevertheless, it may be admitted, if the organization of particular individuals be such as to feel, as a general effect new to each, some physical influence emanating, under mesmeric manipulations, from the mental or bodily acts of the mesmerist, that the consciousness of that unwonted inward experience referred to the mesmerist for its cause, will readily render weak-minded individuals much more subject to what in contrast may be described as his moral agency, namely, the determined expression of his will, and the undaunted appearance of confidence which he puts on, that what he has announced as to happen will not fail to be made good. From many parts of medicine and the natural history of man cases might be instanced in which physical influences operate in the production of morbid states only when in concurrence with causes of a moral character; and other cases might be referred to, where physical influences are rendered inoperative by the antagonism of moral causes.

But, whatever admissions of the foregoing kind may be made, on the supposition that the testimony concerned is trustworthy, still no conclusion follows except that mesmeric phenomena, if real, are nothing more than the symptoms of a morbid state wholly analogous to some of the most terrible diseases which afflict humanity.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

S. Solly, Esq., F.R.S., Vice-President, in the Chair.

FIBROUS TUMOUR OF THE UTERUS IN CONJUNCTION WITH PREGNANCY.

By R. R. Robinson, Esq.

A woman, aged 40, pregnant with her third child, was confined at four o'clock in the afternoon. The labour was in every respect natural, and the womb contracted well. Two hours afterwards she was seized with cold chills; upon being put to bed was sick and faint. When seen five and a half hours afterwards, she was in a state of complete collapse. Fearing internal hæmorrhage and not being certain about the state of the uterus, the hand was introduced; the uterus was found empty, but flaccid. By cold, pressure, maintaining the hand in the uterus, brandy and laudanum, contraction of a feeble kind was produced, and also a somewhat improved condition of the system generally. She rallied a little, but never fairly got out of collapse. She lived ten days, and died apparently from atonic peritonitis. Upon dissection, the intestinal convolutions were of dark colour, being smeared with blood, and were united to each other and to

the uterus by recent and easily separable adhesions. There were three pints of dark venous blood, without coagula, in the peritoneum, and the tumour, in size and shape like a placenta, attached to the fundus of the uterus. This was covered with peritoneum, a reflection from the uterus, whilst the angle of reflection was lacerated to the extent of two inches. In his observations, the author alluded to the uniqueness of the case; to the structure, situation, and growth of the tumour; it seemed as if a malignant character had been implanted upon one originally fibrous; as regards situation, he thought had the woman not been pregnant, it was the most favourable, and would have produced little inconvenience. He thought, also, that the tumour, originally of small size, grew with the uterine development. He ascribed the laceration to the tumour being entangled in the convolutions of the intestine, not following the uterine contractions so freely as was necessary, the peritoneum being thus put upon the stretch, and by the recurrence of pain giving way. He drew a contrast between this and another case of laceration of the peritoneum which occurred to him, which has been published, and in which death happened in twelve hours, and thought the difference in the treatment adopted might have accounted for the difference of time at which death occurred; and in conclusion alluded to the fear of rupture of the peritoneum, as an additional reason for resorting to the induction of premature labour.

CASES OF RUPTURE OF THE LIVER AND SPLEEN.

By ATHOL JOHNSON, Esq., F.R.C.S.,

Lecturer on Physiology at St. George's Hospital, Surgeon to the St. George's and St. James' Dispensary, &c.

The author narrates five cases of this formidable injury which came under his care at St. George's Hospital. In the first case, death took place almost immediately; the second and third proved fatal at the end of the third day, in each case after some exertion made by the patient; in the fourth case, there was very extensive laceration of the liver, with slight rupture of the kidney, but these were found to be perfectly united, and to have healed in a beautiful manner without any trace of inflammation, when the death of the patient, three weeks after the accident, owing to a totally distinct injury, (fracture of the spine, in the cervical region,) afforded an opportunity for a *post-mortem* inspection; the fifth case, in which the symptoms of rupture of the liver appeared well-marked, recovered. The author remarks, that this kind of accident is by no means uncommon, as hospital records prove; that the symptoms are usually sufficiently characteristic, viz., intense pain in the abdomen, especially in the region of the liver or spleen, coming on immediately after a severe blow in that situation; extreme collapse, combined with a very ex-sanguine appearance of the patient, and a certain amount of distention of the belly, this distention not being entirely tympanitic. The pain so much complained of, in the first instance, is probably not inflammatory, as no traces of inflammation were found in the four first cases examined after death. Subsequently, of course, inflammation may, and very often does, succeed, and is attended with the usual symptoms. The author remarks, that this injury is often considered to be necessarily fatal, it being usually doubted, if the patient gets well, whether any rupture had actually taken place; he therefore considers the fourth case related by him as peculiarly interesting, as in this instance the subsequent death of the patient from another cause, allowed it to be actually demonstrated that there had been rupture of the liver, which had healed without any bad consequences to the patient. This appears to be the only case of the kind on record. The treatment, the author thinks, should be directed to the following points:—1. Rather to favour the state of collapse, guarding, of course, against its going too far, in the hopes of checking the hæmorrhage at the time, and allowing coagulation to take place, so as to arrest it in a more permanent manner. 2. To keep the patient in a state of the most perfect rest, not allowing him to make an exertion of any kind himself, and to place him in such a position that breathing may be carried on with the least possible disturbance of the abdominal viscera. 3. To prevent the patient from tossing about, as he is inclined to do from the violence of the pain, and so tending to produce fresh hæmorrhage, by means of the free administration of opiates, such as morphia in camphor mixture, with a little ether, if the collapse be excessive. If inflammation supervene, it will be treated, of course, in the usual manner.

The Chairman remarked, that both papers had been read together, as bearing somewhat on the same point. He trusted, however, to hear the opinions of those qualified to give them on the first paper. The length of time during which the patient survived after the rupture had apparently happened, gave that case great interest. It was quite a new feature, such cases not occurring often in surgery.

Mr. E. A. Lloyd observed, that in Mr. Robinson's case, it was said that there were three pints of fluid blood in the abdomen, and a surmise had been made as to whether this quantity were poured out at once or gradually. The patient, however, had had subsequently a severe attack of peritonitis, and he thought, therefore, that a considerable portion of the fluid might be serum effused in consequence, and coloured by the blood already in the abdominal cavity. The cases narrated by Mr. A. Johnson were not unfrequently met with, and he had himself seen many such during his thirty years' connexion with St. Bartholomew's. Experience had shown him, that when the effusion of blood from the rupture was to a very great extent, the sufferers sink very speedily, enduring at first very great pain, but not presenting any signs of inflammation. When the hæmorrhage is much less, the patient generally dies of repeated attacks of peritonitis; but life may, by judicious treatment, be protracted for weeks or months, and even in some cases, when the evidences of rupture of an abdominal viscus are very clear, the patient may ultimately get well. The treatment should be the same as for peritonitis, but not too violent, as the cause of the inflammation, *i.e.*, the blood effused into the peritoneal cavity, is persistent, and re-excites the inflammatory action from time to time, the patient could not stand up against violent treatment.

Dr. Reid, with reference to the observations made by Mr. Robinson respecting the induction of premature labour in the description of cases alluded to by him, related the case of a lady, who had a large fibrous tumour connected with the fundus of the uterus, but who twice became pregnant subsequently, and, although she suffered greatly during utero-gestation, yet had not on either occasion a difficult nor a dangerous labour. He thought this case showed we should not be too precipitate in inducing premature labour when these tumours existed.

Dr. Heale observed, that he had often found effused blood in a fluid state in making *post-mortem* examinations, as was the case in Mr. Robinson's patient. On being taken from the body, the blood soon coagulated, thus showing the persistence of a cause even after death, preventing the coagulation of blood while still in the body. This he regarded as an important physiological and pathological fact.

Dr. Oldham had examined the preparation of the tumour exhibited by Mr. Robinson; it was clearly fibrous; but he thought that the tissue described as erectile, was merely the uterine tissue, extending over the tumour, enlarged by the occurrence of pregnancy. He did not agree with Mr. Robinson as to the cause of the laceration. He could not suppose that the tumour had become entangled with the intestines, but that, after the placenta had come away, it had itself formed a mass of resistance to the contracting womb, when it sank into the pelvis, the rupture occurring at the angle of resistance at the junction of the tumour with the womb. This he had seen happen altogether irrespective of any tumour. There was a case where the elasticity of the peritoneum had been lost, in which, under similar circumstances, there had been a slight fissure, with great hæmorrhage and death. It was probable that, in Mr. Robinson's case, the peritoneum at that part had also lost its elasticity, and thus aided the laceration. With respect to the induction of premature labour, he had had three cases of fibrous tumour springing from the fundus uteri, under his care at Guy's Hospital, in one of which the patient had been twice delivered without difficulty or danger. The pedicle of the tumour, in these cases, was slender, and the tumour itself was moveable, so that, perhaps, lessened the danger. When the tumour was internal to the womb, the danger was greater, from the fear of internal hæmorrhage from the uterine veins.

Dr. Lee remarked, that in only one case of this growth from the fundus uteri had he been obliged to interfere, and then on account of the rapidity of its increase. When the fibrous tumour occupied the interior of the womb, and lay directly before the child, so that it was necessary to empty the womb, craniotomy must be employed; but, when the tumour was connected with the fundus of the womb, there could not be any necessity for interference, unless it grew so rapidly as to cause great distress. According to their situation in the uterine walls they produce different effects—if low down, sterility; if in the middle, abortion. When seated beneath the peritoneal coat, their rapid growth alone

would warrant interference. In three cases of these tumours where parturition had ended fatally, he had found softening of the uterine walls, hæmorrhage, or puerperal fever, but never such an instance as that of Mr. Robinson's. It was unique. It enabled them to complete the much-investigated history of this disease. He (Dr. Lee) then spoke of the diagnosis between these tumours and ovarian disease, and added, that a patient on whom Mr. Lizars attempted ovariotomy twenty-five years ago, but was unable to complete it on account of the large blood-vessels, chiefly veins, extending from the tumour to the omentum, had just died. The autopsy had shown that the ovaries were quite healthy; but there was, however, a large fibrous tumour springing from the fundus of the uterus, adhering to the omentum, which resembled that on the table. He had derived his information respecting the termination of this case from Dr. Tilt.

Mr. Solly remarked, that in several of Mr. Johnson's cases it was the movements of the patient that caused death. He would advise in all such cases a strap being carried over the bed, not absolutely to prevent motion, but as a hint to lie still. The nurse cannot always be at hand to control the patient.

Mr. Robinson, in reply to Mr. Lloyd's observation, said, it would be difficult to determine whether the effusion were serum or blood, unless one of them greatly predominated. He would not say which it was, but, as the state of collapse was never recovered from, he was inclined to believe the effusion was blood principally. The subsequent peritonitis was not extensive, and was of the atonic character. If the effusion were serum from peritonitis, it would have contained flakes of lymph, which was not the case. Still there might have been some serum mixed with the blood. He had never met with a case of effusion of blood into a cavity, where there were not any coagula. In the case mentioned by him in the paper, where four pints of blood were effused, there were several clots. If Dr. Oldham were correct in his opinion, respecting the uterine tissue covering the tumour, as the latter was composed of three divisions, two-thirds of its bulk would be uterine tissue. He thought his (Dr. Oldham's) remark respecting the cause of the rupture, a distinction without a difference. The great point he (Mr. Robinson) wished to show was, that the tumour was held back, and that this caused the rupture. He must think still, that the tumour, which continued to grow while the uterus was enlarging and rising into the abdomen, had got entangled among the bowels, and that the rupture took place in consequence of the parts being put upon the stretch. The cases spoken of by Dr. Oldham were not in point. He had only alluded to the induction of premature labour, as a suggestion that it was admissible in certain cases. He did not mean in a case such as he had narrated, but that that gave a reason for the interference. He admitted Dr. Lee's reasons for interfering. When the uterine tumour was so large as to prevent the child's passing, there was a necessity to operate to save life.

Mr. Athol Johnson's principal reason for bringing his cases before the Society, was to ascertain whether any cases of recovery from rupture of the liver or spleen had been published. The injury was not of necessity fatal.

Dr. Copland regretted that more attention had not been bestowed on Mr. A. Johnson's cases. When a man falls from a height, or has a heavy body pass over him, he is killed either by concussion or injury to the spinal cord, or by the rupture of an internal organ, and hæmorrhage. The fourth case given by Mr. Johnson shows, that the latter injury may be recovered from, if the rupture be not too extensive, and the patient be properly treated. Mr. Johnson's suggestions respecting the treatment were very good.

Mr. Solly had been attached to St. Thomas's twenty-seven years, and had never seen a case of recovery from that injury during that time, nor had he seen in the dead-house any cicatrices in the organs, leading to the belief that a cure of such had been effected.

Mr. Lloyd thought he had seen such appearances as would warrant him in calling them the evidences of old ruptures of these organs. Besides the causes of death mentioned by Dr. Copland, there was peritonitis, which might occur from an injury without any organ being ruptured. He had seen such a result in a man who had been thrown violently against a stone step. He was not aware that any case of recovery from rupture of these organs had been published.

MEDICAL SOCIETY OF LONDON.

Dr. J. R. Bennett, President, in the Chair.

PLEURODYNIA—PLEURISY—EFFUSION (?)

Dr. Ogier Ward wished to obtain the opinion of the Fellows respecting the case of a gentleman, 40 years of age, then under his care. This gentleman, of the nervous temperament, was seen by Dr. Ogier Ward on account of pain in the left side with dyspepsia. The chest was examined, and the pain pronounced to be pleurodynia. Some medicine was ordered, and mustard poultices with a stimulating liniment to the side. He appeared to be getting better; but the bowels being confined, pills with mercury, colocynth, and hyoscyamus, were ordered to be taken at bed-time. He slept but little, and the next day was extremely prostrated, with pain in all his limbs. When seen by Dr. Ward, he complained of pain in the bowels, with great flatulence, pain in the left nipple and in the back, with tenderness of the muscles. Dr. Ward examined the chest, and found complete dulness over the lower part of the left side; no sounds whatever being heard on applying the ear. On the right side respiration was clear, but not sufficiently so to be called puerile; respiration was equal in the upper parts of both sides. The dulness persisted, and occupied the same site, notwithstanding a change of position. The ribs on the affected side did not expand equally with those on the right side, and pain was complained of on pressure in the intercostal spaces. There was not any dyspepsia nor cough, nor any enlargement of the left side, but rather a shrinking or collapse. The tongue was clean, the pulse feeble and not quicker than natural. The history of the case did not disclose any antecedent disease. Dr. Ward considered this to be a case of considerable interest, as to the cause of the dulness. The question was, whether sudden effusion had occurred, or whether there was congestion of the lungs sufficient to compress the bronchia and prevent respiration.

Dr. J. R. Bennett said, it was difficult to give an opinion in such a case without the opportunity to investigate personally the physical signs; but he thought the case was an example of pleurisy.

Dr. Routh considered that the case was an instance of solid effusion in the walls of the chest. If the effusion were liquid, it must be tied down by adhesions; at the edges of which there would be bronchial respiration and œgophony. He was confirmed in the belief that the effusion was solid by a case which occurred some time back in University College Hospital, under Dr. Taylor. A patient was admitted with pleurodynia, in whom dullness supervened and continued to increase, with diminishing respiration, without other signs of liquid pleuritic effusion. Dr. Taylor diagnosed solid effusion on the parietes of the chest, and the *post-mortem* examination of another patient some months afterwards, who had presented similar symptoms, proved him to be correct. In the first-named case, all remedial measures proved unavailing to remove the dulness.

Dr. Ogier Ward inquired if there were condensation of the lower part of the lung, in the fatal case spoken of by Dr. Routh.

Dr. Routh replied in the negative; the great thickness of the pleura seemed to be the sole cause for the interception of sound.

Dr. J. R. Bennett said, there could be no doubt that bronchial respiration and dulness often continue for some years after complete recovery from acute pleurisy. He had seen several instances of this; in these the dulness was very great, and the respiration distant, the distance being caused, he supposed, by the separation between the surfaces of the two pleuræ.

ENCEPHALOID DISEASE OF THE PERITONEUM.

Dr. Snow Beck exhibited the uterus, ovaries, and portion of the large intestine, taken from the body of a woman who died from cancer of the peritoneum. When she came under observation, she was emaciated to an extreme degree, yet with no appearance of malignant disease in her countenance, only that of emaciation from starvation. She complained of no pain, yet the abdomen was distended with fluid, and covered with dilated superficial veins. She had also obstinate constipation of the bowels, and constant vomiting of stercoraceous matter. Some of the symptoms detailed led to an examination of the uterus, when the orifice was found patent, admitting the end of the finger, deeply fissured, and the lips enlarged. On passing the fingers behind the organ, it came into contact with

a round smooth body, which gave the impression of great size and weight, and was unmoveable in the pelvis. It also pressed against the rectum, and was considered to be a fibrous tumour, and the possible cause of the constipation. Enemata with a long flexible tube, passed a considerable distance up the rectum, were employed. When using the tube it came to a part of the gut which was evidently constricted, and appeared to pass round a substance of some size. Some fæcal matter was evacuated by these means, and the patient expressed herself as being relieved. The vomiting also ceased for a short time; but it soon returned, and it became evident that this was not the only seat of the obstruction. She gradually sank, from inability to take and digest her food. At the examination of the body after death, the abdomen was distended with dark brown coloured serum; the small intestines much filled with light yellow fæculent matter, mixed with some harder lumps. Both the parietal and visceral peritoneum were much thickened, and of a grey, somewhat translucent appearance, and dotted over with small masses of cancer, varying from the size of a pin's head to that of two peas. The edges of the intestines were deeply injected, of a dull red colour. The omentum was much wrinkled up, and infiltrated with similar matter. The uterus was of the natural size, but united into one firm mass, with the ovaries and middle portion of the rectum. No malignant deposit was found in any of the viscera, except one nodule in the pylorus, and it was doubtful whether it was not in the subserous cellular tissue. The intestines were much twisted from their natural positions in the abdomen, and the seat of the constriction was found to be near the termination of the small intestines, and was produced by the contraction of the mesentery drawing the intestine into an angular fold, and so obstructing the passage of the fæces. On more careful inspection, the peritoneum was found little altered; but the subserous cellular tissue was much thickened by the deposit of fibro-plastic material. The cancer was deposited in isolated small nodules, chiefly above the course of the blood-vessels, and these probably, by exciting inflammation, led to the deposit of fibro-plastic matter, by the subsequent contraction of which the displacement of the intestines, and the ultimate obstruction to the fæces, were accomplished. The cancer was deposited immediately beneath the peritoneum, in masses of a round or oval form, of a grey, somewhat semitranslucent appearance at the circumferenoe, with a light yellow opaque centre, extremely like tubercular material. Examined under the microscope, the grey portions were composed chiefly of a transparent stroma, containing many granules and numerous cells. The cells were round or oval, of various sizes, yet all small, with defined outline, thickened capsule, and granular contents. Some of these contained two, three, or five nuclei, whilst others appeared not to have any. By the action of acetic acid, the capsule and contents became more transparent, and the nuclei more distinct. The light yellow central portions consisted of nuclei identical in appearance with those already described, yet with a decided yellow tinge of colour. The stroma was less in quantity, the cells more crowded together, and the granules in greater abundance. The left ovary was dilated into a thick sac the size of a hen's egg, containing clear light-brown fluid. The interior of the sac was lined by a loose red coagulum. The right ovary formed a mass of solid cancerous disease, in size a little smaller than the left. Covering the ovaries and body of the uterus, and uniting them to the rectum and cellular tissue in the pelvis, was a thick layer of grey thickened subserous cellular tissue, closely dotted over with small nodules of cancer. The contraction of the material had bent the uterus upon itself, anteriorly presenting the curved body of the organ to the finger introduced into the vagina. This smooth rounded surface, coupled with the firm agglutination to the surrounding structures, gave to the finger the feeling of an enlarged and weighty organ pressing upon the rectum. The substance of the uterus was pale and rather firmer than usual, presenting numerous yellow points on the cut surfaces, which were principally seated near the fundus. They were found to be the diseased blood-vessels surrounded by a yellow coloured cellular tissue, infiltrated in which were some cells identical in appearance to those already described as formed in the masses beneath the peritoneum. The neck of the uterus was in no way altered from the natural appearance—the orifice large, open, fissured, and the lips swollen. Surrounding the orifice were several small round transparent bodies, filled with transparent white-of-egg mucus, and at one side of the orifice a rounded sessile mass projected from the lips. This on being open was seen to be a cyst filled with transparent white-of-egg mucus, which contained, at one part, many compound granular corpuscles and fat globules. There was no ulceration or excoriation present Apart from the interest which this case presents, as one of malignant disease infiltrated beneath the peritoneum, thus giving rise to inflammation and the exudation of fibro-plastic material, by the contraction of which latter produce great displacement of the viscera was caused, with permanent obstruction of the intestines, it offers an excellent demonstration of some of the errors which have been imported from abroad into the department of pathology, It is said, that the body of the uterus is not liable to inflammation, because there is no cellular tissue in the part. Here is a demonstration, not only that this tissue exists, but that it was infiltrated with cancer-cells. Again, this patent state of the orifice is said to be "pathognomonic" of ulceration, yet no ulceration was here present, nor is there any excoriation. The fissures at the orifice have also been said to depend on lacerations during parturition, whilst here they are shown to depend on a swollen state of the structures of the neck depending upon an enlargement of the glands by retention of their contents; the structures being constricted within a circumscribed compass, and hence become folded and form fissures between the folds. All these statements have been made on very insufficient data, and are not to be depended upon.

In answer to questions from Dr. Murphy, Dr. Snow Beck replied, that the patient's countenance did not present the evidences of malignant disease,—merely those of emaciation, and, indeed, of absolute starvation. He did not know anything respecting the uterine functions, nor could any reliance be placed on the statements of the poor woman, as she was as much debilitated in mind as in body. At all events, there was not any menorrhagia, nor had she any pain in any part of the body. Her age, he believed, was about 40.

THE ASSIMILATIVE FORCE IN RELATION TO HYPERTROPHY AND ATROPHY.

Dr. Henry read a paper on the assimilative force in relation to hypertrophy and atrophy. The object which the author had in view was to draw attention to the assimilative force as a primary element of disease. The subject was treated of under the following heads:—

1. The assimilative power as a physiological element.

2. Excess of assimilative power the essential element in hypertrophy.

3. Defect of the power an element in atrophy.

4. Therapeutic indications.

1. The assimilative power was defined to be, that force by which the tissues of the body appropriate the plastic material presented to them. The distinctions between growth and reparative nutrition were pointed out, and the varying degrees in which the assimilative force exists in different tissues were referred to.

2. Hypertrophy was treated of under the heads of congenital or intra-uterine hypertrophy, hypertrophy from increased functional exercise, and from increased and long-continued afflux of blood to a part. The cases of congenital hypertrophy, in which a limb or part of a limb far exceeded in proportion the other parts of the body were not easy to be explained. If the primary phenomenon was an increased flow of blood, they tended to show the great amount of assimilative power possessed by the fœtal tissues. In hypertrophy from exercise, the nutritive force was believed to be increased in consequence of the demand for a quantity of tissue adequate to perform the increased amount of duty. In hypertrophy from long-continued afflux of blood, Dr. Henry believed that it was only tissues of a low organisation—certainly not muscles or nerves—that could assume increased growth. In the vicinity of old ulcers, there was frequently a growth of hairs—an epidermic tissue.

3. Atrophy was considered according to its occurrence from diminished supply of blood, from cessation or impairment of the functions of an organ, from over-exertion, or exhaustive exercise, and as general atrophy in fevers, &c. Of atrophy from over-exercise of a part, the instances adduced were, the effects of long-continued pressure on the epidermis, and the *atrophie musculaire progressive*, lately described by M. Aran, of Paris, and both were considered as connected with exhaustion of the assimilative power engaged in repairing the waste of tissues. Dr. Henry then referred to the views of Dr. Hodgkin on the non-removal of the products of the waste of tissues during fever, and believed that the reparative power was impaired: this would explain the want of appetite, and the danger of too rapidly improving the state of the blood during convalescence. The paper concluded with a few therapeutic observations.

A discursive conversation followed, but nothing was elicited necessary to be reported.

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UNIVERSITY OF LONDON.

M.B. SECOND EXAMINATION, 1850.

EXAMINATION FOR HONOURS.

Physiology and Comparative Anatomy.

Bristowe, John Syer (gold medal) } Equal { St Thomas's Hosp.
Growse, Robert (ditto) } { Guy's Hospital.
Hewitt, William Morse Graily, University College.
Shearman, Charles James, University College.

Surgery.

Bristowe, John Syer (scholarship and gold medal), St. Thomas's Hospital.
Lewis, Robert Benson (gold medal), Leeds School of Medicine.
Growse, Robert, Guy's Hospital.
Shearman, Charles James, University College.
Hewitt, William Morse Graily, University College.

Medicine.

Growse, Robert (scholarship and gold medal), Guy's Hospital.
Shearman, Charles James (gold medal), University College.
Bristowe, John Syer, St. Thomas's Hospital.
Lewis, Robert Benson, Leeds School of Medicine.
Hewitt, William Morse Graily, University College.

Midwifery.

Hewitt, William Morse Graily, University College.

M.D. EXAMINATION, 1850.

FIRST DIVISION.

Baines, Matthew, King's College.
Barrow, Edward Enfield, Guy's Hospital.
Birkett, George, Charing-Cross Hospital.
Carlill, John Burford, University College.
Eade, Peter, King's College.
Edwards, William Thomas, University College.
Elam, Charles, Leeds School of Medicine.
Monckton, Stephen, King's College.
Ransom, William Henry, University College.
Sankey, William Henry Octavius, St. Bartholomew's Hospital.
Wilks, Samuel, Guy's Hospital.(a)

SECOND DIVISION.

Ayre, William, London Hospital.
Heale, James Newton, St. Thomas's Hospital.

MEDICAL NEWS.

THE BLACK FEVER NEAR OXFORD.—It is reported that the village of Baldon, four or five miles from Oxford, which principally belongs to Queen's College, is now infected with a most malignant typhus fever, running into the old black fever. The cottages are miserable in the extreme, and greatly overcrowded.

MORTALITY IN PUBLIC INSTITUTIONS OF LONDON.—In the week ending Jan. 25, 88 persons have died in Workhouses—44 males and 44 females; in Military and Naval Asylums, 4 males; in General Hospitals, 46—21 males and 25 females; in Hospitals for Special Diseases, 10—6 males and 4 females; in Lying-in Hospitals, none; in Lunatic Asylums, 1 male; in Military and Naval Hospitals, 1 male; in Prisons, none. Total in public institutions, 150—77 males and 73 females.

NAVAL APPOINTMENTS. — Assistant-Surgeon Frederick F. Morgan (1845) to the Bloodhound, steam-vessel, tender to the Sampson steam-frigate, at Devonport, for service on the coast of Africa. Surgeon William Looney, M.D. (1845), to the Apollo, 8, troop-ship, at Sheerness, vice Robertson. Assistant-Surgeon James S. Ayerst to the Queen; Assistant-Surgeon James S. Agent (1847), from the Hogue steam guard-ship at Cork, to the Queen, 116, flag-ship, on the Mediterranean station; James Young, M.D. (1851), acting, to the Cumberland, 70, flag-ship of Vice-Admiral Sir George Seymour, G.C.H., fitting at Chatham for the West Indies station.

NAVAL APPOINTMENTS IN THE CHINESE SEAS.—Assistant-Surgeon J. W. Bradshaw from the Amazon to the Royalist; Assistant-Surgeon W. Telfer from the Hastings to the Amazon.

OBITUARY.—On the 8th January, at Chertsey, James Robert Cole, Esq., surgeon, aged 39.—On the 17th instant, at the residence of his son in the city of York, in his 80th year, William Travis, M.D., of Scarborough.—On the 21st instant, at 7, Taunton-place, Regent's park, aged 36, John Dymock Scale, M.D., M.R.C.S., and L.A.C.

DEATH OF R. THORPE, ESQ., OF MANCHESTER.—This eminent surgeon expired on Tuesday, January 21, at his residence in Piccadilly, Manchester. The deceased was in his 64th year. He was known, not only in Manchester, but throughout the kingdom, as one of the most clever anatomists and operating surgeons the three kingdoms contained. Having passed through the usual course of instruction in London, and the ordeal of examinations, he subsequently returned to Manchester, and commenced the practice of his profession. He became connected with the Manchester Royal Infirmary in 1812, by his election on the 2nd of April in that year, and resigned in 1849, but was immediately elected one of the consulting surgeons to the institution, and held that honourable position at his death. In private life Mr. Thorpe was distinguished by the benevolence of his character, and by the unostentatious manner in which he distributed his ample means among those whom he believed to be requiring and deserving of aid.

UNIVERSITY OF CAMBRIDGE.—Dr. Henry J. H. Bond, the newly appointed Regius Professor of Physic in this University, has also received the appointment of Reader in Physic, in the room of Dr. Haviland, deceased.

THE CENSUS OF 1851.—Members of the medical profession are to state the university, college, or hall, of which they are graduates, fellows, or licentiates; also, whether they practise as physicians, surgeons, or general practitioners, or are not practising. Professors, teachers, public writers, authors, and scientific men, to state the particular branch of science or literature which they teach or pursue.

KING'S COLLEGE HOSPITAL.—The funds of this useful Institution have been augmented by a legacy of 500*l.* under the will of the late Mr. Thomas Ansaldo Hewson. As all legacies are funded for the benefit of the hospital, this will make but a small addition to the annual income, and we believe that the Institution requires all the assistance which the benevolent can give.

ST. MARY'S HOSPITAL.—The weekly Board of Governors have announced that the difficulties attending the erection of the building have at length been successfully overcome, and the medical staff is on the eve of being appointed. They have also informed the public, that 545*l.*—the amount subscribed—is obviously insufficient, even for a beginning. We agree with the Committee, and much fear it will thus be some time before the medical officers will be called upon to act in their several capacities. The Metropolitan Free Hospital, with an income of nearly 1,000*l.* a year, venture to fill but a few beds. But then that institution administers to the medical and surgical necessities of more than 12,000 patients annually.

MEDICAL SOCIETY OF LONDON.—Messrs. Hancock, Headland, and Clifton, have been appointed trustees to the freehold property of this Society, by Vice-Chancellor Sir J. K. Bruce.

ROYAL SOCIETY.—At the last annual meeting of the Society, the Royal Medal was awarded to Mr. Brodie, (the eldest son of Sir Benjamin Brodie,) for his papers on the Chemical Nature of Wax. It is nearly forty years since Sir Benjamin Brodie received the Copley Medal, for his papers on Poisons,—the only instance, we believe, of father and son receiving the like distinction.

OWEN'S COLLEGE.—Mr. Williamson, surgeon, of Manchester, has been appointed Professor of Natural History to Owen's College. The appointment is highly satisfactory. Mr. Williamson's papers on the Structure of the Foraminiferæ, and those on the Scales and Osseous Tissues of Extinct and Recent Fish, are very valuable. Mr. Williamson is also a distinguished botanist.

PARISIAN HOSPITALS. — LA CHARITE.—This hospital was founded in the early part of the 17th century, by Mary de Medicis, who brought a religious order from Italy for that purpose. At first it occupied the Rue des Petits Augustins, but, in 1607, was transferred to its present site in the Rue Jacob. Previous to the Revolution of '93, the hospital contained only 200 beds, and none but male patients were admitted into it; more than half the beds also had been established through private charity. The Convention appropriated 12,000 francs for the support of 100 female patients, and the number of beds has now been carried to 429, although 530 patients are occasionally accommodated in the establishment. The Hospital of La Charité, situate as we have said in the Rue Jacob, is composed of a confused mass of irregular buildings, united, like most of the other Parisian hospitals, by large courts and gardens, in which the convalescent patients exercise. The number of

(a) To Mr. Wilks was awarded a gold medal for his commentary on a case in Medicine.

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patients annually admitted is about 8000; the mortality is 1 in 8 for the medical wards, and certainly 1 in 12 for the surgical, although it is stated to be only 1 in 20. La Charité has always been an attraction for the medical student. Though Roux has been transferred to the Hôtel-Dieu, Velpeau is nearly as popular; while Rayer, Bouillaud, and Andral still continue to exercise an influence commensurate with their well-earned reputations. The *clinique* at La Charité is better attended than perhaps that of any other hospital; and it deserves the preference, for all the distinguished men whom we have mentioned, deliver clinical lectures during the season.——The Hopital du Midi, or the Male Lock Hospital, is an unpretending building of an irregular kind, presenting exteriorly little appearance of a public establishment, and contrasting strongly with most of the other hospitals in Paris. This probably arises from the nature of the original construction, which admitted but little of improvement. It contains more than 400 beds, and the patients are kept in a very strict state of discipline. None of their friends or strangers are admitted into the interior, but on public days communicate with the patients through an iron grating, so closely barred, that not even a pipe can pass through it. The wards, though small for the most part, are extremely clean, warm, and at the same time sufficiently ventilated. There is, however, a great want of open space for the exercise or recreation of convalescent patients. The "lion" of the Lock is, of course, M. Ricord, whose well-earned reputation requires no notice here. His visits are always followed by a crowd of students, and his clinical lectures are most attractive—rather loose, perhaps, for some ears, but to the "carabins" of the Quartier Latin, not less acceptable on that account. M. Ricord, who is said to be of Canadian origin, speaks English perfectly, and has ever been remarked for the great kindness with which our countrymen are received by him. A considerable proportion of the class at the Hôpital du Midi is always composed of English and American students or medical men.

Of the sixteen Turkish and Arab youths lately sent to Europe by the Pacha of Egypt for their education as medical men, five are sent to England, five to Germany, five to Italy, and only one to France.

Globulamania.—I had been called in to attend the wife of a retired tallow chandler, who had sprained her ankle. The case being urgent, I gave her a globule of belladonna in a tumbler of water, and after recommending a low diet I took my leave, leaving, unfortunately, on the table my case of globules. A mischievous urchin about four years old, the son of the lady, chanced to stray into the room, and spying my case of "comforts" as he called them, made short work of them by swallowing them all; he then set up a most tremendous roar, which brought all the household into the room. They could not get an intelligible word from him, but he roared most lustily. His mamma saw at once that he had swallowed all the doctor's "powerful medicines," and sent off a messenger on horse-back after me; for, knowing that the remedies, if taken by a healthy person, would produce the disease they were intended to cure, she expected to see her darling attacked every moment with typhus, cholera, hydrophobia, small-pox, measles, sprained ankles, and all diseases named in the modern practice of physic. The more they questioned the lad, the more he roared; until at last a little companion getting near him, said, "What does Billy Pop want?" "*More comforts*," blubbered he, to the great horror of all around. I did not get to see him until the next morning, when, to my great vexation, I found him eating his breakfast, and as hearty as ever, and a stout big-whiskered regular doctor persuading his mother that the comfits were all gammon, and undertaking to swallow the whole of my shop without any inconvenience! I quickly persuaded her to dismiss him; and, giving the lad a brisk emetic, induced her to believe that he had refunded the globules with his breakfast, and that all danger was over. Patients of this sort are not desirable; they require a nice management; but my usual good fortune attended me, and my reputation did not suffer by the accident.—From "Globulamania; or, the Quack Doctor's Hand-Book." By Caleb Quirk, M.D., a retired Homœopathist. [A *little* book, but well worthy attention.—Ed.]

Extreme of Quackery.—Halifax seems to be distinguished as the hotbed of quackery. Some money, the overplus of a racing transaction, was lately presented to the Infirmary, *and returned by the Governors.*

Traffic in Human Suffering.—We have lately been horrified by accounts of those who traffic in the feelings of bereft relatives, and make a profit of the disposal of the dead; but we question if the moral culpability of the parties is so great as that of those who traffic in the public appointments of our hospitals, and who hand over the sick and dying to the highest bidder. In London, with a few honourable exceptions, the medical cases in our hospitals are handed over to the licentiates *intra urbem* of the Royal College of Physicians It signifies not what may be the age, the standing, the attainments of a physician who has not the magic charm of the *intra* license; he is made to stand aside for the youth who has just managed to pass his examinations in Pall-Mall. It matters not to tell us that the *intra* licentiate of the London College of Physicians is the only legal physician. It is well known, in fact, that this is not true, that the College has no power to prosecute, and that it is so ashamed of its own position in this respect, that it has petitioned for a charter in which its powers and position shall be in accordance with the wants and requirements of the age. Another and a worse form of nepotism exists in the provinces. It is not unfrequent for a provincial physician to sell his practice, and with it his appointment to the county hospital. An instance has recently come to our knowledge in the county town of Kent, in which a physician there sold his practice, and with it his hospital appointment, to a physician from London, a late candidate for St. Mary's Hospital. Before, however, resigning his appointment, the county physician canvassed the Governors for his London friend, which coming to the knowledge of a gentleman who had long resided and practised in the place, the latter commenced a canvass on his own account, and was soon fortunately enabled to procure so large an amount of support as to compel the hospital physician to give up the intention of introducing his friend. We see, in such instances as this, a necessity for constant vigilance on the part of the governors of our hospitals, to be careful that these institutions are really what they profess to be,—places where the poor, in the hour of their greatest need, may secure the best possible attention that their cases demand. The practice of trafficking in hospital appointments is as disgraceful to our Profession as it is injurious to the welfare of the sick, and is an offensive blot on the fair fame of the noblest institutions our country has to boast.

The Amherstia Nobilis is now in splendid flower, at Ealing Park, the seat of Mr. Lawrence, of St. Bartholomew's Hospital. The brilliant salmon-coloured and yellow inflorescence is very handsome, and when it is mentioned that sixteen or twenty blossoms are often arranged in a single racene, some idea may be conceived of its beauty.

Marylebone Board of Guardians.—At the meeting of this Board on the 24th ult., Dr. Allen, the principal medical officer of the infirmary, reported, that in the infant-school and in the chronic and infirm wards, there was a large amount of illness, arising from overcrowding, and the large amount of slop diet. The result was—scrofulous disease, diarrhœa, and ophthalmia were becoming prevalent. Three days in the week the inmates have pea-soup for dinner, and on every alternate three days they have for supper what is called a pint of broth. It is, however, merely the water in which the beef of the previous day had been boiled, without barley, vegetables, or anything in the slightest degree nutritious in it. Dr. Allen added, that 200 per annum died out of the chronic and infirm wards, arising chiefly, he feared, from their being too close. It was stated by a Guardian, that the broth ordered for the poor was to consist of, to every gallon of liquor 2 lbs. of mutton cut small and simmered, 1 lb. best Scotch barley, with onions and turnips, savoured with sweet herbs, and seasoned. It proved, however, on inquiry, that pot-liquor only, as above described, was given three nights in each week. A resolution was carried for a Committee of the whole Board to take the subject into consideration.

Small-pox and Vaccination.—The Registrar-General reports (for the week ending January 25) an increase of mortality from zymotic diseases, both over the average of the same week of ten previous years, and also over the preceding week of 1851. The augmentation occurs principally under the heads small-pox, diarrhœa, and typhus. 32 deaths are attributed to the former, and the Registrars again report various families which have been fatally visited by this disease, and where vaccination has been neglected from prejudice entertained against it. In only two cases out of the whole number (32) does it appear that vaccination had been properly performed.

Temperature of the Week ending Jan. 25.—The result of the readings of the thermometer for the whole week is a plus of 2°3 over the average of ten previous years. On Sunday, the 19th, however, there was a plus of 6°6, while on Friday, the 24th, a minus is shown of 6°3. The average reading of the barometer for the week was 29·850, and the prevailing wind S.W.

Cascarilla Bark.—A decree has been issued by the authorities of Bolivia, forbidding the cutting of cascarilla bark for three years, commencing Jan. 1, 1851.

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DEATHS *in the Metropolis for the week ending Saturday, Jan.* 25, 1851.

Causes of Death.	Jan. 25. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	443	325	188	956	11042
Specified Causes	440	324	188	952	10962
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	156	41	14	211	2032
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	5	25	17	47	535
3. Tubercular Diseases.	49	93	6	148	1872
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	54	27	31	112	1284
5. Diseases of the Heart and Blood-vessels	2	26	12	40	320
6. Diseases of the Lungs, and of the other Organs of Respiration ...	94	45	53	192	2425
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	18	23	11	52	631
8. Diseases of the Kidneys, &c. ...	...	12	4	16	95
9. Childbirth, Diseases of the Uterus ...	...	10	...	10	127
10. Rheumatism, Diseases of the Bones, Joints, &c.	2	6	...	8	71
11. Diseases of the Skin, Cellular Tissue, &c.	1	...	...	1	11
12. Malformations	1	...	...	1	32
13. Premature Birth and Debility ...	19	2	...	21	234
14. Atrophy	18	...	1	19	148
15. Age	...	...	35	35	766
16. Sudden	5	2	3	10	121
17. Violence, Privation, Cold, and Intemperance	16	12	1	29	245
Causes not Specified	3	1	...	4	80

1. Small-pox ...	23	Paralysis	18	Disease of Spleen	...
Measles	19	Delirium Tremens	2	8. Nephritis.....	2
Scarlatina ...	17	Chorea	...	Nephria or Bright's Disease ...	6
Hooping Cough	46	Epilepsy	9	Ischuria	1
Croup	3	Tetanus	...	Diabetes	...
Thrush.....	3	Insanity	...	Stone	1
Diarrhœa ...	26	Convulsions	53	Cystitis	3
Dysentery ...	1	Disease of Brain, &c.	14	Stricture of Urethra ...	...
Cholera	...	8. Pericarditis...	4	Disease of Kidneys, &c.	3
Influenza ...	5	Aneurism ...	1	9. Paramenia ...	...
Purpura and Scurvy	...	Disease of Heart	35	Ovarian Dropsy.....	1
Ague	...	6. Laryngitis ...	8	Childbirth (see Metria)	4
Remittent Fever	3	Bronchitis ...	75	Disease of Uterus, &c.	5
Infantile Fever	1	Pleurisy	3	10. Arthritis	...
Typhus	41	Pneumonia...	79	Rheumatism	6
Metria or Puerperal Fever	5	Asthma	21	Disease of Joints, &c.	2
Rheumatic Fever	...	Disease of Lungs, &c.	6	11. Carbuncle ...	...
Erysipelas ...	6	7. Teething	12	Phlegmon ...	...
Syphilis	14	Quinsey	...	Disease of Skin, &c....	1
Noma or Canker.....	...	Gastritis	1	17. Intemperance	2
Hydrophobia ...	...	Enteritis.....	7	Privation of Food.....	...
2. Hæmorrhage	11	Peritonitis ...	3	Want of Breast-milk	3
Dropsy.....	17	Ascites.....	3	Neglect	...
Abscess	2	Ulceration (of Intestines, &c.)	2	Cold	...
Ulcer	3	Hernia	6	Poison	1
Fistula.....	...	Ileus.....	1	Burns and Scalds	4
Mortification	1	Intussusception	...	Hanging, &c.	5
Cancer	21	Stricture of Intestinal Canal	1	Drowning ...	5
Gout.....	2	Disease of Stomach, &c.	6	Fractures ...	7
3. Scrofula	4	Disease of Pancreas ...	...	Wounds	2
Tabes Mesenterica	8	Hepatitis.....	1	Other Violence.....	...
Phthisis (or Consumption).....	113	Jaundice	4	All Violence	24
Hydrocephalus.....	23	Disease of Liver	5		
4. Cephalitis ...	13				
Apoplexy.....	21				

BIRTHS AND DEATHS.

	Births.	Deaths.	Births over Deaths.
Males	764	451	313
Females	759 } 1523	505 } 956	254 } 567

The Deaths in the several Districts are as follow :—

Districts.	Population in 1841.	Jan. 25, 1851.	Sum of Ten Weeks.
London...	1948369	956	11042
West	801189	123	1698
North	576568	199	1968
Central...	374199	167	2077
East	393067	232	2423
South	503346	235	2881

TERMS OF SUBSCRIPTION.

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TO CORRESPONDENTS.

Ovariotomy.—In answer to several Correspondents we have to state, that Dr. Frederick Bird's papers will be commenced in a week or two.

Dr. Jenner's Papers on Typhus Fever.—Our readers are informed, that *one* more paper will conclude this very valuable series of communications.

THE MEDICAL-MAN-O-SCOPE.

[To the Editor of the Medical Times.]

Sir,—It has occurred to me very often to have such questions as the following put to me, "Who are the first medical men in London, or what medical men do you consider the cleverest in all London?" Such questions, when put by a lady, of course one is very anxious to meet with a satisfactory and categorical reply. I have always found, however, that these simple questions have led me into a fearfully long-winded story; and though I am always desirous (especially to my patients) to have the air of a man who can give an answer to anything, I have never been able to get out of this examination and cross-questioning. To be even, therefore, in future, with my fair friends, I have just bethought of an expedient by which I think the celebrity and aplomb of any member of the medical profession can be immediately arrived at. I propose to call my instrument the Medical-man-o-scope. The instrument is at once extremely simple and beautiful, and I imagine must be allowed by all to be accurate. It consists of a pair of common compasses, so adjusted that when open it marks on a quadrant the extent in degrees of the distance between its points. The degrees are found by adjusting the compasses to a copy of the "Medical Directory," just published by Churchill; when the compasses are applied it will give the number of lines exactly between its points, which can be at once read off on the quadrant.

I propose to call the number of lines that each man takes to be properly described in the "Medical Directory," as his equivalent in the scale of medical celebrity. It will be seen that no one can object to this, as each man has been allowed to describe himself in the last edition. It would be to extend this communication to too great a length were I to give many of the chiefs of the profession, with their equivalents attached; I shall content myself, therefore, with a list only of all those eminent practitioners who stand at the top of the profession, in my mode of estimation; in other words, in the order in which the most space is required to describe them and their writings in the last edition of the "London Medical Directory." It may also be remarked, that my equivalent number may be read as degrees or as so many lines of the "Directory," if the reader likes.

Quin, F. F., Homœop.	32	Hancock	16
Martin, J. R.	30	Murphy, E.	15
Machell, T.	29	Sieveking	15
Winslow, Forbes	28	Stoson	15
Pereira	27	Quain, W.	15
Cormack, J. Rose...	24	Bonney	15
Bird, Golding	24	Dudgeon	15
Forbes, J. D.	24	Gavin, H....	15
Ainsworth, W. F.	23	Haden	15
Granville	23	Cooke, Wm.	15
McWilliam...	23	Brown, Dr. W H.	15
King, R.	23	Chevne	15
Lawrence, Wm.	22	Wilson, Eras.	15
Ridge	22	Hare	15
Smith, Tyler	22	Epps	15
Cooper, W. White...	21	Lane	15
Elliotson	21	Goodfellow	15
Holland	21	Chippendale	17
Sawyer, G.	21	Coulson	17
Smith, Protheroe	21	Chance	17
Alison, S. Scott	20	Campe	17
Clutterbuck	20	Burnett	17
Bennet, J. H.	20	Pilcher	15
Hall, Marshall	20	Walton	17
Turnbull	20	Beedle, Sir B. C.	16
Aldis, C. J. B.	19		

All the above are of course more eminent than Sir Benjamin.

Now, Sir, as you have once or twice published a list of eminent contributors to your journal, I doubt not that you will find my list of men of eminence almost a verbatim copy of yours.

I am, &c., Inventor.

THE MEDICAL DIRECTORY.

[Letter from the Editors to the Editor of the Medical Times.]

Sir,—We should, perhaps, be considered unmindful of our interests, or deficient in courtesy to the Profession, if we declined to notice the attacks which have been made upon us in the last two numbers of your Journal, although, from their anonymous character, we

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might fairly pass them by unheeded, and no voice could reasonably be raised to condemn us for our silence. But we are loth to allow such an opportunity to escape us of freeing ourselves from the imputation of carelessness and incorrectness which has been brought against us; and we may further observe, that were there not a spiteful *animus* here and there exhibited by your Correspondents, we should hail them as friends to ourselves, as well as useful contributors to the Medical Journals, and, perhaps, append their effusions to the tail of their names in the next year's "Directory," from a feeling of gratitude. As it is, we proceed to reply to their complaints, as best we may, and this we shall do, *seriatim*.

In Mr. Harvey's case you have yourself exculpated us, and shown how premature was that gentleman's letter of complaint. In a polite and gentlemanly note to the Proprietor of the "Directory," Mr. Harvey has himself expressed his regret at the circumstance, which regret cannot exceed that we have ourselves felt at the omission of which he complained.

"I Should Like to Know" demands, first, if Dr. Batchelour is qualified, why is he omitted at page 11 in the Street List, and inserted at page 42 as unqualified? *We deny that it is so.* It is not because an asterisk is affixed to a name that the owner is unqualified. It only serves to indicate that those so marked have neglected, or are unable, to supply us with the nature of their qualifications. We refer your Correspondent to the headings of our London and Provincial Lists at pp. 35 and 235, which are fully explanatory upon this point. Second. If Dr. Batchelour is unqualified, why is he put at page 542 as a duly qualified M.D.? The list of Homœopaths was supplied to us by one of the most respectable of that class of practitioners, and was published as sent. We are only in fault in omitting to state this fact, and that to test the qualifications, reference should be made to our own London and Provincial Lists. This will serve to answer your Correspondent's third query as to why Dr. Batchelour is put down as an M.D. at all when his university is not mentioned? From the above explanation it will be seen that *we* have not done so.

Having rebutted the charge of inconsistency brought against us by "I Should Like to Know," we proceed to the error noticed by a "Constant Reader," which certainly is chargeable upon the Secretary of the Pathological Society, whose duty it was to supply us with the true evenings of meeting, which, after repeated applications, he neglected to do. In the absence of such information we submit that we were justified in concluding that the evenings of meeting remained the same as before.

In reply to X. Y. Z., we beg to hail him as a friend or a diamond of the first water, and sincerely hope he will deluge you with a "legion of questions," in the hope that we may here and there catch a ray of his brightness, as we have done from his present communication. In return, we will rub off a spot or two which darken his own effulgency. 1. Henry Holland, Richard Bright, Southwood Smith, and Henry Robert Southey, although in our estimation some of the most distinguished members of the Profession, are not M.D.'s, never having taken a University degree. We are therefore right in the omission, and X. Y. Z.'s dream has come true. As a similar misconception on this point occurs in a contemporary journal—the *Medical Gazette*—in the course of an honest and flattering review of the "Directory," we may here observe that the title of M.D. can be derived only from a University or from the Archbishop of Canterbury, by virtue of the Lambeth diploma: Nevertheless, we should ourselves address every duly-qualified physician as M.D. out of courtesy, as we would dub our Bond-street tradesman, Esquire. But in the "Directory" the case is altered. Denis Cronin, Mr. Editor of the *Medical Gazette*, is truly an M.D., whereas the gentlemen you have named are not. Sir James Clark, according to all accounts, is a Fellow of the Royal College of Physicians, but for some private reasons of his own he omits it invariably in his return of our annual circular. The case of the omission of Henry Monro, M.B., Oxon, F.R.C.P., &c., we must hold up as a warning to others. It appears that this gentleman, finding that his name had been omitted in the "Directory" *for* 1850, immediately on its publication, addressed a note to the Editors. In due course the Annual Circular was forwarded to him, but, relying on the note he had written, and being told by our publisher, Mr. Churchill, that that would be sufficient, he unfortunately failed to fill it up and return it to us. The little note, written months before, never reached the Editors, and if it had, it is questionable whether at so distant a date any notice could properly have been taken of it, seeing that no return came to a second circular addressed to the same gentleman! The importance and necessity of replying to the Annual Circular cannot be too much enforced on the Profession. It is the grand safeguard of the correctness of the "Directory." The Medical Profession is in more senses than one a moveable body. What with deaths, retirements, and changes of residence, the "Directory" rapidly loses its value as an unerring guide even during its year of currency. During the few weeks consumed in its passing through the Press we will venture to say that more than one hundred removals take place. With the knowledge of this fact before us we were not a little amused at a respectable tradesman, who complained of the incorrectness of the "Directory," judging from the number of letters returned to him through the post, after a circularisation of the Profession, marked, "Gone away, and left no address;" "Gone away, not known where;" "Gone to prison," &c. On inquiry we found that he had used a "Directory" of the previous year!!! 3. The error in regard to the Messrs. Quain is an error certainly, but not an error of magnitude, or one which can compromise the general correctness of the book. The contribution on Fatty Diseases of the Heart, is from the pen of Dr. Richard Quain, 33, Harley-street, and the omission of the joint editorship of the very valuable Report of the Hospital for Consumption applies to the same gentleman 5. Omitting to name the President of the Pathological Society, is again attributable to the neglect of the Secretary of that society. 6. Lees, H., Blandford, Dorset, should have an asterisk prefixed, and must be considered a typographical omission on the part of the printer, for it went fairly into his hands after a careful reading of the proof sheet.

In taking leave of "X. Y. Z.," we beg to thank him for this, his first instalment of the "Legion of Questions" he has to address to you, and beg that they may be continued *publicly* or *privately* as his *taste* may dictate. We shall be equally obliged to the correspondent of the "Lancet," who, the Editor tells us, discovered twenty-five errors in one hour! that is, if he will favour us with an account of them.

"S. W." accuses us of omitting to give the beginning and ending of the University terms in the Calendar; but how unimportant, even if true, when we give the table complete after the Calendar, commencing at page xxv., with numerous other tables. It is astonishing how industrious some of your correspondents have been in picking a hole in our coats.

The letter of "Delta" is really enough to make ordinary men, or men less experienced than ourselves, tremble in their shoes! We are threatened with a rival "Directory," unless we behave ourselves better than to give a list of the Homœopaths and Hydropaths. Now, it so happens, that the suggestion which we have acted on, came from some of the heads of the regular practitioners; and, as it appeared to us on due consideration, that a Medical Directory would not be complete without them, we really fear we shall lose the patronage of "Delta" for the future, by reprinting the obnoxious list; and as we are as strictly orthodox as "Delta" can be, we can only hope, and it will be our unbounden pleasure to us to show, that the present formidable list will become from year to year "small by degrees, and beautifully less," and that even some of those who figure in it will yet live to see the error of their ways (if it is an error), retrace their steps, and be content to shine in the general list only. We can assure "Delta" that such an idea as that of selling a few more copies never entered our brains. On the subject of rivalry with which "Delta" threatens us, we could write enough for a book, but as far as a long experience teaches us, it is an *ignis fatuus*, a shadow, a thing not to be dreaded, whether it refer to professional matters or a rival Directory; we have experienced it in both and invariably profited by the attempt, and so we prognosticate we should again. The attempt has been made, and at our nod the projector would become the inmate of a prison, and thus pay the consequences of his temerity. He must be a bold man to venture on a new Directory.

Your formidable array of correspondents winds up with the kind and considerate letter of "Fair Play," in whose sentiments we entirely agree. The "Directory" *is* "a bulwark of the profession, distinguishing as it does the qualified from the unqualified practitioner." It *is* "a formidable enemy to quacks." It *is* "a boon to the profession." We believe that every member of that body thinks the same, save and except the few, the very few, whose ire has been excited by some unfortunate error or omission in the entry of their names, or by some asterisked gentleman who has no legal or other qualification to boast of.

In conclusion, Mr. Editor, we beg to add one fact to the million which the "Directory" itself contains. At random we have opened it, and counted the number of facts or errors imprinted on the page which first met our eye, page 424. They amount to 290; for please to recollect that every figure involves a fact or an error, and every word,—at all events every line,—another. But say that every page contains 200 facts,—600 pages must imbody the enormous total of 120,000!

Errors, undoubtedly, there are; but, considering the size of the book, and the nature of its contents, we confidently submit that they are wonderfully few, and those which exist are very unimportant,—your correspondence to wit. But even these few we are most anxious to expunge, and we call on your correspondents, in a kind and friendly spirit, to aid us in their correction. It has taken us six years of indefatigable and untiring industry and labour, with no sparing of expense, (the item of postages alone, in the compilation of the present edition exceeded *two hundred pounds!*) to bring the "Directory" to its present state of completeness. Every year has brought us nearer to perfection, and in 1852 we hope to reach this, the *acme* of our wishes.

We are, &c.,

The Editors.

It is a matter of no little gravity to accuse honourable men of assuming titles to which they have no right,—of proclaiming themselves to be, like certain Licentiates of the College of Physicians, that which they are not. For the honour of the Profession, we rejoice to be enabled to give an unqualified contradiction to some assertions contained in the above letter: at the same time we confess that, when gentlemen are respectfully applied to for their qualifications, and the purposes for which the application is made properly explained, they ought to comply with the request:—

Henry Herbert Southey *is* an M.D. He graduated at Edinburgh in 1806.

Henry Holland *is* an M.D. He graduated in Edinburgh in 1811.

Richard Bright *is* an M.D. He graduated in Edinburgh in 1813.

Southwood Smith *is* an M.D. He graduated in Edinburgh in 1816.

As regards Dr. Southey, we may further state, for the benefit of the next edition of the "Directory," that he is a Doctor of Civil Law of Oxford; an F.R.S.; Grecham Professor of Medicine; and one of the Lord Chancellor's visitors of lunatics. Moreover, he was Physician-in-Ordinary to George IV., and for many years Physician to the Middlesex Hospital.

[To the Editor of the Medical Times.]

Sir,—The principles involved in the questions propounded by "I Should Like to Know," which appeared amongst your list of correspondents last week are important not only to the Profession but to the public. In addition, I would ask whether the *soi-disant Dr.* Batchelour is not the person who, some years since, kept an herb shop at the east-end of London; and if so, by what refining process has he become entitled to have his name enrolled among the honourable names of an honourable profession? I heartily concur in the observations of "Delta;" and it appears to me that the promises by which the Editor of the "Medical Directory" obtained the support of the Profession have been recklessly broken, and the feelings of medical gentlemen grossly insulted by their names being coupled with the ragtail and bobtail of society.

I am, &c.,

January 28, 1851. Note of Interrogation.

[To the Editor of the Medical Times.]

From the correspondence on the "Medical Directory," which I have seen in the late Numbers of the "Medical Times," I am induced to allude to my own case.

In the first vol., 1837, my name appeared with the several papers annexed, as forwarded to the Editor. In Vol. II., 1838, these were wholly omitted, while in other instances the notices of papers, &c., were retained, without, as seemed to *me*, any sufficient reason. If want of space compelled the Editors to weed the volume, I did not feel they were justified, in direct contravention of their promised intentions, in making a clean sweep of mine. I presume my name stands in 1850 as in 1838.

I am, &c.,

Great Yarmouth. N. T.

[To the Editor of the Medical Times.]

Sir,—About "H. Lees, Blandford, Dorset," the Editors of the "Medical Directory" may be glad to know that this gentleman was a dentist at Cheltenham; that he has since graduated at Glasgow, and obtained the extra Licentiateship of the College of Physicians.

I am, &c.,

P. Q.

[To the Editor of the Medical Times.]

Sir,—Will you allow me to question the propriety of your so readily giving insertion to the complaints of Correspondents against the "Medical Directory."

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I have carefully dissected the various communications which have appeared on the subject, and it appears to me that some of them bear internal evidence of coming from gentlemen to whose names are prefixed an asterisk. They would have us believe that there are those in the Profession who obstinately decline to furnish the Editors with their qualifications; and, therefore, that it is no proof that names so marked are illegal practitioners. Well knowing the trouble and the labour the Editors took in my own case, to ascertain the nature of my qualifications, amounting, as I then thought, to almost an officious pertinacity, I must say, that I shall firmly believe every gentleman an unqualified practitioner so long as the asterisk is affixed to his name. It must be a strange feeling, indeed, which could prompt any man to withhold his qualifications, and prevent their being published in a book which is now invariably recognised as the index to the qualified members of the Medical Profession; a book which is appealed to in Courts of Law, referred to by Coroners, and by all persons who wish to ascertain the status of any particular medical man. Before the "Directory" had gained its present standing, it might have been excusable to withhold the information solicited by the Editors, and the splenetic might have pronounced it a piece of impertinence. But now the case is altered. The public, to my knowledge, extensively appeal to the book; and they know what inference to draw, if the person they look for is not included in its lists. Depend upon it, Sir, that the "Medical Directory" is the most formidable engine against quacks and quackery yet projected. To my knowledge one of the asterisked gentlemen received three different applications from the Editors for his qualifications, but having none he did not notice them. *Ex uno disce omnes*. Rely upon it that, whenever there is an asterisk, you may reasonably doubt the possession of a qualification. As to errors and omissions, every Directory has them,—every ordinary book even, has them, and so will it be to the end of time, or as long as there is a printer or a printer's devil.

I am, &c.,

E. Smith.

Royal Medical and Chirurgical Society Reports.

[To the Editor of the Medical Times.]

Sir,—I observe one of your contemporaries reports the proceedings of the Royal Medical and Chirurgical Society a week before they appear in the "Medical Times." I do hope you will take a hint and do the same.

I am, &c., A Country Reader.

We regret we cannot comply with the request of our Correspondent, and for this reason. The Council of the Royal Medical and Chirurgical Society entered into a compact with the editors of the different medical journals, by which it was agreed that their Secretaries should furnish abstracts of the papers read before the Society, on *condition that no publication of the proceedings should take place except in connexion with these abstracts. We* feel ourselves bound by our agreement; and for the sake of accuracy we do not deem it expedient to depart from it. We might otherwise be led into the same error as our contemporary, and mistake the *lung* for the *spleen*. We are quite sure few of our readers would prefer a hasty report the same week as the Society meets, to a well digested one, seven days later. At any rate, until absolved from our agreement with the Society, we cannot depart from our practice. For a somewhat similar reason, we are obliged to decline a report we have received of the proceedings of the Edinburgh Medico-Chirurgical Society; and that although it contained an abstract of a paper read by Dr. Mackenzie on his late fatal case after perineal section, and the discussion which followed. Nothing could be easier than to obtain reports of any Society in the kingdom; but then it does not accord with our principles to publish transactions without the full concurrence of the Society reported.

The Cork Appointments.

[To the Editor of the Medical Times.]

51, Patrick-street, Cork, January 21, 1851.

Sir,—In compliance with a Resolution adopted at an influential meeting of Medical Practitioners of Cork, held to-day, I beg to forward you the accompanying letters.

I am, Sir, your obedient servant,

Charles Armstrong, M.D., Honorary Secretary.

Office of Ordnance, 16th January, 1851.

Sir,—With reference to a letter dated the 21st ult., and signed by yourself and Dr. Corbett, on behalf of the "Medical Practitioners of the Cork Union," I am commanded by the Master-General of the Ordnance to inform you, that although he can by no means recognise the right of those gentlemen to call upon him for explanations as to the grounds of his official acts; yet, that he had deemed it proper to make further inquiries into the case of Mr. Weare, and as it now appears that, notwithstanding the strong testimonials, medical as well as others, by which the pretensions of that gentleman were supported, he does not possess the proper legal qualification to practise, the Master-General has decided to cancel his appointment to the medical charge of the department at Haulbowline and Spike Islands.

I have the honour to be, Sir, your obedient servant,

Dr. Armstrong, Cork. C. Paget.

51, Patrick-street, Cork, January 21, 1851.

My Lord,—I have the honour to acknowledge the receipt of your Lordship's letter of the 18th inst., wherein it is stated, that the Master-General, finding Mr. Weare possessed no legal qualification to practise, "had cancelled his appointment to the Medical charge of the department at Haulbowline and Spike Islands."

With reference to that part of your Lordship's communication, in which you say, that the Master General "can by no means recognise the right of those gentlemen to call upon him for explanation as to the grounds of his official acts;" I am expressly directed to repeat, that the Medical Practitioners of the Cork Union never called on Lord Anglesea for any explanation of his official acts,—they merely acted in vindication of a *principle* of vital importance, not only to the Medical Profession, but also to the public service.

I have the honour to be, my Lord, your obedient servant,

Charles Armstrong, M.D., Honorary Secretary.

Lord C. Paget.

Fair-Play must apply to Mr. Wardrop.

Dr. B., M.D., Edinburgh.—The signature is too illegible to be decyphered.

The Secretary of the Harveian Society is thanked. We regret we cannot this season find room for the reports of the Transactions of this Society.

Mr. Verral's drawing is in the hands of our engraver.

A Constant Reader is thanked.

Chirurgus Anglicus.—We are not aware that the Edinburgh College of Surgeons publishes a list of their *Licentiates*. There is no such title as *Member* of the Edinburgh College.

Amicus.—We are making arrangements which we trust will be successful, and meet the views of our Correspondent.

Mr. Armitage Pearson is referred to the several papers that have appeared in the "Medical Times," on Self-supporting Dispensaries. Our pages are open to Mr. Pearson's communications on the subject.

Enquirer.—An elaborate analytical review of Mr. Wharton Jones' views on Inflammation, has been prepared.

Mr. Startin's Paper will be published as soon as possible.

Mr. Drew, of Wivelscombe.—The work of Mr. Erasmus Wilson on Healthy Skin contains the information required.

The correction proposed by Dr. Daniell reached us after the publication of the Journal.

Dr. Shirley Palmer, of Tamworth, will receive a proof of his communication.

Licentiates of the College of Physicians.

[To the Editor of the Medical Times.]

Sir,—A fellow general practitioner in this neighbourhood has lately become an extra licentiate of the College of Physicians. He now calls himself "Doctor." Is this correct? I enclose my name and address.

I am, &c., O. P.

The "extra licentiate" has *dubbed himself* "Doctor." This is entirely a University degree, and a University the College of Physicians is not. We repeat, the College of Physicians have never been placed, and are not now, in a position to grant to any one the degree of Doctor in Medicine. Their Charter simply gives them the power to license persons to practise in London, or within seven miles of it!

"*Alpha* would feel obliged to the Editor of the "Medical Times" by his answering the following question in an early number of the "Times":—Will a person holding the diploma of the Royal College of Surgeons, England, and no other certificate or license, be admitted into the contemplated College of General Practitioners without examination."

"Alpha" must first catch his fish, then talk of cooking them. Joking apart, although "Alpha" would be admitted into the proposed College, there is not the slightest chance of the Bill becoming law. In fact, the Institute itself died a natural death and became morally defunct with the resignation of its Secretary, Mr. Ross.

Our Report of the Meeting of the Pathological Society is in type, but its insertion unavoidably postponed.

[To the Editor of the Medical Times.]

Sir,—Having been told that a medical man cannot legally refuse to attend to any case when demanded, I shall feel obliged if you will answer the following questions:—

1st. Is a medical man compelled to go to any case he may be summoned to?

2nd. If called upon to attend in the country a case of midwifery or fracture, with or without a fee tendered at the time, can he not refuse going?

3rd. Does tendering money, whether in full, or part payment of fee, bind the medical man to take the case?

In your answers to Correspondents I shall carefully look for the required information.

I am, &c.,

W. R.

*** 1st, no; 2nd, yes; 3rd, no. In the several instances cited by our Correspondent, the option of attendance rests with the medical man. Were it otherwise, the medical practitioner would be a mere slave of the public,—holding a position entirely anomalous in this country.

Distressed Medical Men.—Subscriptions received:—

Z.	£0	10	0
J. S.	2	2	0
H. W.	0	10	0
Well-Wisher	0	10	0
Edin.	0	10	0

In consequence of the many demands upon our space, we are obliged to omit our General Correspondence this week.

Communications have been received from—

Mr. Drew, of Wivelscombe; Dr. Daniell, of Grosvenor-street; Inventor; C.; Dr. Shirley Palmer, of Tamworth; Mr. Henry Smith, of Caroline-street; Dr. Ridby, of Berkeley-square; O. P.; Note of Interrogation; Mr. Moore, of the Queen's Hospital, Birmingham; Dr. Inglis, of Halifax; Mr. Milton, of Jewin-street; Mr. Armitage Pearson, Liverpool; Alpha; Dr. Dudgeon, of Gloucester-place; Mr. Double Dull; Dr. Armstrong, of Cork; Mr. Mann, of Charterhouse-square; Mr. Gregory Forbes, of Devonport-street; Mr. Startin, of Saville-row; The Editors of the "Medical Directory;" A Country Reader; Mr. M'Laren, of Harley-street; Mr. E. Smith; A Constant Reader; Messrs. Blackwood, of Edinburgh; Mr. Verral, of Helles-street; Chirurgus Anglicus; Amicus; Enquirer; Fair Play; W. R.; Dr. Mair, of Crieff; H. T.

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ORIGINAL LECTURES.

LECTURES ON PUBLIC HEALTH.

ADDRESSED TO THE STUDENTS OF THE THEOLOGICAL DEPARTMENT OF KING'S COLLEGE.

By WILLIAM A. GUY, M.B. Cantab.,

Dean of the Medical Department of King's College, Professor of Forensic Medicine, and Physician to King's College Hospital, &c.(a)

LECTURE I.

Gentlemen,—This short course of lectures, with the full concurrence of the Rev. the Principal of this College and the sanction of the Council, is addressed primarily and chiefly, though not exclusively, to the students and associates of the theological department. Pupils of other departments and strangers to the College will be permitted and are invited to attend. But, as some of my lay hearers may possibly be deterred from joining our class by the fear that these lectures, being primarily designed for the instruction of the clergy, will be found less suitable to the members of other professions, I must at once remove this misgiving by assuring them that the interest which naturally attaches to my subject will be in no degree impaired by the special considerations which I shall have occasion to introduce. The topics which are likely to prove attractive or instructive to the Christian minister cannot be unacceptable to the Christian gentleman.

As (if I am not greatly mistaken) this is the very first course of lectures on public health which has been addressed to students in theology, I may be fairly expected to offer some explanation of the reasons which have prompted so great an innovation. Though the fact of this course of lectures having been fully sanctioned by the Principal and Council of this College, renders anything approaching to a justification of this new procedure unnecessary, I think it highly expedient to state my own reasons for deeming such a course of lectures a desirable, if not a necessary, part of the education of a clergyman.

Most of you, gentlemen, are aware that, during the last ten or twelve years, a most important series of inquiries has been undertaken, partly by private individuals, partly by Government, into the condition of the poorer classes of our population. These inquiries were originally set on foot with a view to ascertain the truth of certain allegations regarding the degraded physical condition, either of the great bulk of our labouring population, or of certain considerable sections of it. A highly important series of these inquiries had special reference to the state of the dwellings of the poor in large towns and populous places; other inquiries were directed to certain unwholesome and degrading occupations; and others, again, to certain usages of particular trades which were represented as militating against the physical and moral well-being of the persons engaged in them.

Many of these inquiries were, strictly speaking, *sanitary* inquiries; that is to say, they were set on foot with the express object, not merely of ascertaining the actual condition of the people, but the specific effect of that condition upon their health and the duration of their lives. But even where this was not the *primary* object, sanitary considerations necessarily found a place. The ill-constructed habitation, the dilapidated workshop, the crowded factory, the unsuitable occupation, the long hours of work, the scanty wage, the disastrous intervention of the middleman, the tyranny of the public-house,—every bad custom, and every selfish practice were found to reveal themselves in health undermined and life curtailed. So that the history of the health of the people becomes, in a certain sense, the history, not only of their physical, but of their intellectual and moral condition, and the *public health* a centre round which may be easily grouped and displayed all the elements which go to make up a true and faithful picture of the state of a nation. It is this consideration, coupled with a profound conviction of the advantage to the clergy of a knowledge of the condition of the people among whom they are called upon to labour, which leads me to attach so much importance to the present course of lectures. The fact, that the laity is rapidly becoming possessed of this knowledge, and is taking an active part in practical measures for the improvement of the condition of the people, ought to act as a powerful inducement to the clergy to obtain the information necessary for a full participation in their labours. For as I can conceive nothing more likely to strengthen the hands of the clergy for their own peculiar work, than a hearty sympathy and co-operation with every benevolent effort for the improvement of the condition of the poor, so I can conceive nothing more injurious to their reputation and usefulness than to be supposed indifferent to these labours of love. As an attached member of the Church of England, I rejoice to be able to bear my testimony to the services which her clergy have rendered to the cause of sanitary and social improvements. The nature and extent of those services will be best shown by presenting you with a brief sketch of the sanitary and economic inquiries to which I have already referred as characterising the last ten or twelve years.

I should, however, lead you into error, and, at the same time, do injustice to some of the greatest names in the history of this or any other country, if I were to represent the sanitary and social movement embodied in these inquiries as an affair of yesterday. I must not allow you to forget what was taking place more than three quarters of a century ago in the village of Cardington, and in the prisons of England—the one the scene of the first successful attempt to raise a rural population from the lowest depths of abasement to the enjoyment of health, decency, and comfort; the other the theatres of the most remarkable acts of self-devotion recorded since the days of the Apostles—the agent in both these works of philanthropy, our own John Howard! What he found the prisons of England, and their wretched inmates, what he left them, and what (thanks to his self-denying exertions) they now are, I shall have an early opportunity of stating. Nor must I omit to mention that other great work of humanity, prompted by like motives, and prosecuted in a like spirit, which was first taken in hand long before the labours of the great prison reformer were finished, and which was brought, by the close of the century, to its completion—the work which has placed the name of Jenner side by side with those of Howard and Wilberforce as a philanthropist; of Harvey and Sydenham as a Christian philosopher and physician—I allude to the discovery of Vaccination, of which it may be said, without exaggeration, that it is destined to be the means of saving more lives than even the sword itself has destroyed.

From this hasty retrospect of the great sanitary works and discoveries of the last part of the 18th century, it would be unjust to omit all allusion to the voyages of a kindred spirit, Captain Cook, which, by a curious coincidence, were being prosecuted at the very time that Howard was on his travels, and Jenner busied in the patient and laborious investigations necessary to the completion of his great discovery. These voyages of Captain Cook, as you are aware, afforded, if not the first, at least the most remarkable practical demonstration of the possibility of preserving the health of seamen in long voyages, and of effectually guarding against that ocean-plague—the sea scurvy; thus doing for the *ship* what Howard did for the *prison*, and for the scurvy what Jenner did for small-pox. But, even anterior to the period of which I speak, (anterior, that is to say, to the prison-inspections of Howard and the voyages of Cook,) Dr. Stephen Hales,—a clergyman eminent for his high attainments as a scientific botanist, and by no means unknown to the Medical Profession as a valuable contributor to medical science,—a clergyman of whom it is said, that he refused a Canonry of Windsor, that he might the better devote himself to his parochial duties and his favourite scientific pursuits,—of whom it is also truly said, that piety, truth, and virtue were the principles of his character;—this venerable clergyman, so early as 1741, presented to the Royal Society an invention for ventilating mines, prisons, hospitals, and ships, to the merits of which both Howard and Cook bear testimony. I may add, that of this Dr. Hales, the biography from which I quote, relates that, "with a laudable view of preventing as well as curing the sufferings and crimes of his fellow-creatures, this good man published anonymously 'A Friendly Admonition to the drinkers of Gin, Brandy, and other Spirituous Liquors,'

(a) These lectures were delivered in the spring of last year. Though addressed to theological pupils, they are believed to contain much matter calculated to interest the Medical Profession. Arrangements have accordingly been made for publishing them in this Journal.

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which has often been reprinted and distributed gratis by those who consider the temporal and eternal interests of their fellow-subjects, rather than the increase of the revenue." You see, then, that the Church of England may fairly lay claim to the honour of having, in a certain sense, originated the sanitary movement of the last half of the 18th century.

It would not be right to omit, even from this imperfect outline, all reference to the labours of Sir John Pringle, Dr. Brocklesby, Dr. Jackson, and others, for the improvement of the health of our soldiers; to the successful attempts of Drs. Clarke and Collins to reduce the frightful mortality of the Dublin Lying-in-Hospital, or those of Drs. Percival and Ferriar, of Manchester, and Dr. Currie, of Liverpool, to improve the sanitary state of those important centres of manufacturing and commercial industry.

From what I have said, you will see, that the last five-and-twenty or thirty years of the 18th, and the first few years of the 19th century, constitute a great sanitary epoch, signalized by the most memorable achievements on behalf of the public health; and that I could not have passed it over in silence without giving you an erroneous idea of what has been done, and is still doing, during the more limited period which may fairly lay claim to the honourable title of our second great sanitary epoch.

The first of these two epochs was characterised by the great and successful efforts which were made to preserve the health and improve the condition of prisoners, soldiers and sailors, the inmates of hospitals, and generally of bodies of men brought under public surveillance and control; but, with rare and unimportant exceptions, the inhabitants of our towns and villages, who form the great bulk of our population, were left a prey to the very diseases from which even the prisoner had been released. It has been left to our own times,—to what I have ventured to call our *second sanitary epoch*,—to extend the boon of health, decency, and comfort, with their moral accompaniments, to the benighted population of scattered villages and crowded cities.

In returning from this short, but necessary, digression, to my promised sketch of the sanitary inquiries and undertakings of the last few years, I must again remind you that one object which I have in view is to demonstrate the important part which the clergy have taken in the promotion of these useful labours.

In all human probability the travels of Howard, the voyages of Cook, and, above all, the great discovery of Jenner, with the practical steps taken to improve the health of prisoners, of soldiers, and of sailors, would have given an impetus to the science and art of public health which would have made itself felt in the dwellings of the poor in every village and city throughout the land. But the great European struggle, which closed the 18th and ushered in the 19th century, so absorbed the attention and monopolised the efforts of the nation, during upwards of 20 years, as to leave no place in the public mind for sanitary considerations and improvements.

So completely, indeed, does the subject of public health seem to have been forgotten, that even the first awful visitation of the cholera in 1831 found us utterly unprepared to profit by the lessons which it seemed divinely commissioned to teach us. It found us unprepared, it left us uninstructed. The efforts made to remove known causes of disease whilst the scourge remained among us, were abandoned almost as soon as it was withdrawn. We relapsed into the habitual carelessness and indifference from which we had been roused, though it is not improbable that the impression left upon our minds was, on the whole, an element in the sanitary revival which was soon to take place.

The first event of any significance in relation to the *public health* followed fast upon the subsidence of the cholera. I allude to the appointment, at the instance of Lord Ashley and Mr. Sadler, of the Factory Commission in the year 1832. Two of the gentlemen placed upon this Commission, Mr. Chadwick and Dr. Southwood Smith, who may be regarded as the originators of the health movement, have borne an active part in almost all the sanitary inquiries which have taken place since that time, and, together with Lord Carlisle and Lord Ashley, constitute the present Board of Public Health.(a) The report of these Factory Commissioners, whilst it established the fatal effects of excessive toil, did not overlook "defective drainage, ventilation, water supply," and other analogous causes of disease acting concurrently with it. The knowledge and experience gained in this inquiry were evidently not lost on Mr. Chadwick, who had an early opportunity, in the Reports on the new Poor-law of 1834, of giving expression to the opinion which will at once be recognized as his own, that to the extent of at least one-fourth, pauperism is dependent upon *preventible* causes; in other words, that it is the result of diseases that might be effectually guarded against.

Our dominions in India were the scene of the first inquiry of a strictly sanitary nature. In 1835, Mr. Martin, one of the late Health of Towns Commissioners, addressed Lord Metcalfe, the then Governor-General of India, on the sanitary improvement of Calcutta. This led to the appointment, under his successor, Lord Auckland, of a Sanitary Commission, which produced an able official report, before the subject had been in any way touched at home. Even so early as 1821, however, the Marquis Wellesley had effected some improvements in Bengal. The first inquiry having special reference to the public health, which took place in England, originated in the occurrence of an attack of typhus fever of unusual severity in Whitechapel, in 1838. This having been reported to the Poor-law Commission, the Board immediately appointed Drs. Arnott, Kay, and Southwood Smith, to investigate its causes. The startling revelations concerning the extent and severity of the disease, and the squalid condition of its victims, which were contained in the reports of these gentlemen,(a) immediately arrested public attention; and as it was obvious that the state of things thus disclosed was by no means confined to the limited district which had first attracted the attention of the authorities, the necessity of a more extended and searching investigation soon made itself felt. Accordingly, during the session of 1839, the Bishop of London, in his place in the House of Lords, moved the extension of the inquiry to the whole population of England and Wales. Scotland was subsequently included. Thus did the Church, at this early period, in the person of the Right Rev. prelate, the Chairman of the Council of this College, recognise the value of the new movement in favour of the health of our poor labouring population. From that time to this, he has never lost sight of the subject, nor has he allowed any favourable opportunity to escape him of testifying the lively interest which, on moral and religious grounds, he takes in it.

The inquiry launched under such happy auspices was entrusted to the Poor-law Board, and fell officially into the able hands of Mr. Chadwick, who, in 1842, published his well-known Report on the "Sanitary Condition of the Labouring population of Great Britain." His supplemental Report on Intramural Interments followed in 1843. It can scarcely be necessary to remind you how greatly these and all subsequent sanitary inquiries were facilitated by the periodical reports from the office of the Registrar-General, which first came into operation in the year 1838. Nor must I omit to mention that the subject of public health had received, even as early as 1837, an important impetus from the publication of the article on "Vital Statistics," from the pen of my friend Mr. William Farr, in M'Culloch's "Statistical Account of the British Empire," the first edition of which work was published in that year.

In this same year, 1843, in which Mr. Chadwick's Supplemental Report appeared, a Commission was issued by the Government of Sir Robert Peel for a renewed inquiry into the sanitary condition of large towns and populous places. This Commission, well known as the "Health of Towns Commission," made their first report in 1844; and in the following year, 1845, Lord Lincoln brought in his Bill to provide for the sewerage and drainage of towns, and for their general sanitary improvement. On the change of Government, this important measure fell into the hands of Lord Morpeth, now Lord Carlisle, who, in the course of the year 1848, had the satisfaction of seeing it pass into a law. This Health Charter, under the title of the Public Health Act, is now in operation, and may be expected ere long to justify the sanguine expectations of its promoters. A great number of provincial towns have already made application to the Central Board to be admitted to its benefits. A Metropolitan Commission, which is still open, and has already made one valuable report on the very difficult subject of the measures necessary to be adopted for improving the sanitary

(a) It must be borne in mind that this lecture was delivered in the month of February of last year.

(a) Those of Dr. Southwood Smith embraced, not only Whitechapel and Bethnal-green, but several of the metropolitan unions.

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condition of the Metropolis, was appointed in 1847. The arrival of the cholera in the autumn of 1848, its rapid spread from town to town,—its extraordinary fatality, far exceeding, in the number of its victims, the epidemic of 1831,—its obvious connexion with, and part dependence on, the self-same causes which had been already shown to favour the spread of other pestilences,—the practical measures adopted to mitigate its severity and check its progress, especially the house-to-house visitation set on foot in 1849 by the Central Board of Health, and the stringent application of the Nuisances Removal Act of 1846,—these facts and occurrences, which are fresh in the recollections of all of you, form a fitting conclusion to this very brief and imperfect sketch of the sanitary movements and transactions of the last few years.

A more complete history must have embraced the details of many inquiries having an important bearing on the physical condition of the people, and of many acts of the Legislature directed to the preservation of their health and the improvement of their condition. Among the former I must have mentioned the Children's Employment Commission, of 1843, and the Hand-loom Weavers' Commission of an earlier date. Among the latter, the Acts for the extension of vaccination, and the repression of the baneful practice of inoculation; for the regulation of lunatic asylums; for the surveillance of ships carrying passengers; for the rescue of the coal-whippers of London from the tyranny of the public-house; for the regulation of Sunday baking; for preventing the employment of children as sweeps, and of women and children in mines and collieries; for shortening the hours of factory labour, and otherwise regulating those hives of industry; for the surveillance of metropolitan buildings; for opening a public park in the eastern part of London; and for enabling corporations and parishes to devote a portion of their funds to the establishment of baths and wash-houses. Nor could I have omitted, as gratifying signs of the spirit of the age in which we live, the unofficial inquiries of the *Times* newspaper into the condition of Ireland, and of the rural districts in England; and the still more extensive investigation set on foot under the title of "Labour and the Poor," by the *Morning Chronicle*.

I have purposely reserved to the last one part of the sanitary history of the last few years—that, namely, which relates to the means employed for instructing the people and creating a sound and influential public opinion in reference to this important matter—as it will give me an opportunity of presenting you, in a compact and connected form, with evidence of the great importance attached by influential members of your own sacred profession to the efforts now making for improving the physical condition of the poor.

The Health of Towns' Commission, as you will recollect, published their first report in the year 1844. It was in the month of December of the same year that the Health of Towns' Association, which charged itself with the work of enlightening the public, and otherwise promoting the cause of sanitary reform, came into existence. As a proof of the importance which the Church attached to the labours of this Association, I may mention, that, in addition to the names of several clergymen distinguished for the faithful and zealous discharge of their sacred duties, the Committee contains those of the Bishops of London, Oxford, and St. David's, and that of the late Bishop of Norwich.(a) The list of the subscribers to the Association also comprises several names of influence in the Church, among which I cannot deny myself the pleasure of specifying that of the Principal of this College.

Among the clergy who gave in their adhesion to the Health of Towns' Association, and in other ways promoted the patriotic objects it had in view, I would particularly specify the Rev. John Clay, the indefatigable chaplain of the Preston House of Correction, whose description of the sanitary state of that city, published in the first Report of the Health of Towns' Commission, will not suffer by comparison with similar descriptions from the pens of members of my own profession; and the Rev. C. Girdlestone, whose admirable and well-timed analysis of the results of the leading sanitary inquiries, published in the year 1845, did much to introduce the subject to a large class of readers to whom the bulky blue books, in which the results in question were first enshrined, were inaccessible. The work to which I refer is in the shape of a series of short "Letters on the Unhealthy Condition of the Lower Class of Dwellings, especially in Large Towns." It is largely illustrated with useful woodcuts, and sold at the moderate price of 1s. 6d. I take this opportunity of commending it to your notice.

To the list of the dignitaries of our Church who have taken a decided interest in sanitary improvements, I am also bound to add the name of the Bishop of Gloucester, who, in the year 1848, while the Public Health Bill was yet under discussion, addressed a public meeting convened at Bristol, and insisted on the paramount necessity of taking speedy measures for improving the sanitary state of the city, assigning as his reason for addressing them on the subject, his desire "to afford his support to the parochial clergy," whom he described as peculiarly "conversant with the evils which afflicted the poor," and as already exerting themselves to improve the state of their dwellings. Nor must I omit from this list the name of the Bishop of Winchester, who, at the instance of the Health of Towns' Association, convened a meeting of the clergy of the Surrey suburban parishes during the spring of the year 1848; at which meeting, as at a previous meeting of the clergy of the diocese of London, convened by their diocesan, a petition to both Houses of Parliament in favour of the Public Health Bill, then under discussion, was agreed to, and numerously signed.

I have thus, as I trust, succeeded in proving to you that the Church has always evinced a lively interest in the success of the sanitary cause, and in the efforts recently made to improve the physical condition of the people. To establish this position, is to justify the present course of lectures; for what can be more natural than that those who, on moral and religious grounds, acknowledge the importance of a sedulous attention to the public health, should wish to impart a knowledge of its facts and principles to the younger members of a profession which will hereafter enjoy such admirable opportunities of applying them! And if such a course of lectures be expedient anywhere, where more so than within the walls of an institution presided over by the benevolent and enlightened prelate who, from the first dawn of the sanitary movement to the present time, has never lost a favourable opportunity of bearing his testimony to its value; who has countenanced the efforts of more than one association formed for its advancement, commended its practical objects in successive pastoral letters, and, on the occasion of the late public thanksgiving for the removal of the cholera, has stamped with the seal of his high authority the important principle that even the ravages of the most deadly pestilence are in great part due to man's sinful neglect of the means of preservation which have been mercifully placed within his reach.

To illustrate and enforce, by a reference to the history of epidemic diseases, this great truth, so fruitful in practical results, will be the object of my next lecture. In the meanwhile, I cannot make a better use of what remains of the time allotted to this discourse, than by endeavouring to show the advantages which must result from an attention on the part of the parochial clergy to the physical condition of the people committed to their charge.

Of the great and peculiar opportunities which the clergy possess of promoting the temporal welfare of the poor, it is not necessary that I should speak at any length.

Educated, enlightened, refined, in the midst of the untaught, the ignorant, and the rude, often wealthy by comparison with the great majority of their flocks, or, if not rich themselves, the chosen almoners of the bounty of others, with ready access to every rank of society, lending the sanction of religion to every joyful and every sorrowful event of life; the natural resort of the poor in their afflictions and difficulties (in rare instances, indeed, the only persons within reach to whom they can apply for counsel or assistance in sudden emergencies); the instructors of their children; often the managers of their little concerns, and the bankers for their scanty savings;—where else shall we look for similar opportunities of ministering to the wants, or improving the physical condition of the poor? And assuredly the motives to embrace these opportunities are at least equal to the opportunities themselves.

Many of these motives are so obvious that they cannot have escaped your attention. Possibly, on reflection, they might all occur to your own minds; but I think that there are one or two that by no means lie upon the surface, and

(a) Among the list of patrons of the Metropolitan Working-man's Association for Improving the Public Health, I also find the name of the Bishop of Durham.

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are much more likely to be perceived by one who looks at the matter from a *lay* than from a *clerical* point of view. I shall endeavour to place some of these motives before you.

There is a *dictum* of Samuel Johnson, to which recent events have given deserved currency, to the effect, that "To preserve health is a social and religious duty, for health is the basis of all social virtues; we can be useful no longer than we are well." Now, this duty of preserving health, binding as it is upon all of us, is obviously peculiarly so on a body of men whose usefulness is of so high an order; and it happens that with its fulfilment in one very important particular, the improvement of the physical condition of the poor, especially in reference to the state of their dwellings, is inextricably bound up. In a future lecture I shall be able to prove to you, that typhus fever, which destroys several thousands of our population every year, though an infectious disease spreading from person to person, very rarely attacks those who inhabit clean and airy dwellings, but where cleanliness and ventilation are neglected, and many persons are crowded into a narrow space, (an event of most frequent occurrence both in town and country,) not only gains easy access, but is apt to attack all persons who are called upon to attend at the bed-side of the sick. When, as in the years 1846 and 1847, this severe disease assumes its worst form, the mortality both among medical men and clergymen is very considerable.

It was doubtless to the ravages of this disease that the Bishop of Winchester alluded on the occasion of the meeting called by him for the promotion of sanitary reform. I will quote the words used upon that occasion from the report of the meeting:—"It had fallen to his lot very frequently, in the intercourse which he was at all times glad to hold with the clergy of his diocese, to see the most distressing effects arising out of the want of an improved sanitary law. He had seen the most valuable ministration paralysed, and the means of doing good entirely laid aside for months together, solely in consequence of disease contracted while visiting the impure and infectious places with which, he regretted to say, various parishes in his diocese abounded." The Right Rev. prelate then quoted several cases of death and illness among his clergy, arising, as he believed, in every instance, from imperfect sanitary arrangements. As I may not have another opportunity of referring to what took place at that very interesting meeting, I will quote one more passage from His Lordship's address, in which he insists, in the strongest possible terms, on the value of what has been not inaptly termed "the Ministry of the Body:"—"Their first duty," he said, "was to promote the religious advantages of their parishioners, and their second and scarcely less important duty, to bear a part in whatever seemed likely to be effectual in improving the social condition, and ministering to the comforts of those among whom they were placed; and first of all among the humblest, the lowest, and the meanest of their fellow-creatures."

The preservation, then, of his own health, with a view to the maintenance of his efficiency, is one inducement to the clergyman to promote, by every means in his power, the physical improvement and temporal welfare of his parishioners.

Another motive of still greater weight is suggested by the fact, that not only in populous towns, but even in scattered villages, in every part of England, the overcrowding of dwellings is carried to such an extent, that, by rendering the observance of decency altogether impossible, and offering a perpetual temptation to the commission of crimes too revolting to mention, the very tone and temper of the mind becomes so degraded and brutalized as to present an almost insurmountable obstacle to the home-ministrations of the clergy.

On this subject you will perhaps wish me to quote the views of members of your own profession. The Rev. Charles Girdlestone, whose little work I have commended to your notice, speaking on this matter, says:—"Nor would any outward means do so much to forward the success of our teaching as the extending to every family that which is at present out of the reach of many, but might be imparted to all, namely, the possibility of living, if they are so disposed, in a healthy and decent home;" for, as he says in another place, "the habits of life forced upon the poorer classes to a great extent by the faulty construction of their dwellings, are not merely most serious hindrances to the progress of true piety, but also most active incentives to the practice of gross immorality."

To a similar effect is the passage which I have already cited from the address of the Bishop of Winchester to his clergy.

So also the Bishop of London, in his sermon preached at St. Paul's Cathedral on the day of thanksgiving. Speaking of the poor, he says:—

"No time must be lost in endeavouring to do away with a state of things which is degrading to them as human beings, and still more as children of the Church,—which not only invites the approach and aggravates the malignity of disease, but which weakens all social and domestic virtues, destroys all self-respect, and removes opportunities and motives for self-improvement. The want of a decent and cleanly habitation is one of the chief evils which oppress the poor—an evil continually increasing with the increase of our population, and which we ought long ago to have taken measures to prevent. Neatness, order, and comfort, are unknown in their miserable and overcrowded dwellings; modest reserve is impracticable; delicacy of feeling is destroyed; grossness of manners and language—the consequence of a mode of life which admits of no retirement, seclusion, and meditation—becomes the habit of childhood, and prepares the mind for vicious intercourse in future years. None of the comforts of home are there—none of its softening purifying influences; and can we wonder if, from such sinks of filth and immorality, come forth—if they are spared by epidemic disease—the scandals and pests of society, the mendicant, the drunkard, and the thief? It is not less our interest than theirs than that our poorer neighbours should enjoy the conveniences and decencies of life; that they should possess the means, of which many of them are entirely destitute, of being cleanly, and observant of domestic propriety, having each their own home for their own family, and enjoying, if not many of the comforts of life, yet at least the blessings of which none ought to be deprived, and which are common even to the beasts of the field—the pure elements of air and water, so necessary to the continuance of man's health and strength."

Into this important subject the Bishop of London entered still more into detail in his Pastoral Letter addressed to the clergy of his diocese early in the year 1848.

After stating some of the principal physical evils under which the poor are suffering, His Lordship goes on to say:—

"I do not hesitate to express my opinion, that such an amount of practical and personal attention to the removal of these evils as may not seriously interfere with the discharge of those duties which are of a more purely spiritual kind, may not be unreasonably looked for on the part of those whose office binds them to every exertion of charity, by which they may promote the present and eternal well-being of the people committed to their care. I lay the greater stress upon this point, because it is certain that persons immersed in hopeless misery and filth are, for the most part, inaccessible to the motives and the consolations of the Gospel. Let it, then, be one object of your pastoral visit to observe the state of the poor man's dwelling, with respect both to its internal economy and to the condition of its immediate precincts. Call the attention of the proper officers to such cases as may appear to require their interference, and remind those members of your flock whom Providence has entrusted with the means of alleviating the misery of their fellow-creatures, that a portion of their charitable expenditure can hardly be more safely or more profitably directed than toward defraying the expense of cleansing and ventilating the miserable abodes of those by whose labour they are directly or incidentally benefited; and, you may add, that a very moderate outlay, judiciously made, will accomplish a great deal in the way of such improvement."

You see, then, how important it is that the clergy should, by every means in their power, aim at the palliation and removal of over-crowding of dwellings and its allied evils, of which the *physical* effect finds its expression in the spread of oathsome diseases and the general impairment of health; and the *moral* effect in utter debasement of character and the perpetual temptation to the most revolting crimes.

Another motive to the sedulous attention to the "ministry of the body," is afforded by the consideration, that to the ignorant and slow of thought, (and, indeed, to all men,) this anxious concern for temporal wants and physical comforts, cannot but serve as an "outward and visible sign" of an abiding anxiety for the promotion of *spiritual* interests.

There is still another motive of which I would speak in the language of suggestion. I cannot but think that an assiduous

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attention to the temporal well-being of the poor must have a most wholesome effect on the mind of the clergyman himself, by varying the current of his thoughts and the nature of his occupations, thus taking the place of some of those amusements of which all men stand in need, but from which he may feel himself debarred, and thus, by engaging him in a routine of practical duties, guard him against that listless, desponding, fanciful frame of mind which is so apt to seize upon the sedentary student even of sacred things,—a state of mind closely allied to that which drives the poor hypochondriac patient to every form and variety of quackery in turn, and lands him at last in a firm belief in some monstrous delusion. May I not venture to throw this out as the true theory of some at least of the late melancholy secessions from our Church? Would not such a life as that of our own Dr. Hales, or the good pastor of the Ban de la Roche, have furnished, in many cases, an effectual preservative against these fatal aberrations of the intellect?

But I have not yet exhausted all the considerations which I would suggest to the clergyman as motives to a vigilant attention to the temporal wants of his parishioners. There is still one to which it is impossible to attach too much importance,—I mean, the great moral and spiritual dangers attaching to a state of abject poverty, of which there is no more fruitful source than unnecessary sickness.

There is a poverty, gentlemen, decent, respectable, retiring, very far removed from luxury and refinement, but by no means a stranger to humble household comforts; shrinking from dependence, not through pride, but from a deep and abiding sense of the duty and dignity of honest labour, but yet accepting gratefully such occasional aid as its precarious condition may render necessary,—a poverty which gives that ready access to the minister of religion which wealth and luxury too often repel,—*the* poverty which we may may presume to be intended in Scripture, and against the oppression of which such awful denunciations are levelled—a condition which I know not that a wise man would willingly see exchanged for one of ease and affluence.

But there is also a poverty, filthy and squalid, the companion of misconduct, idleness, and crime,—a poverty to which the most common comforts and decencies of life are unknown; which has substituted for a natural anxiety and carefulness for the future utter indifference and recklessness,—a poverty which accepts assistance without gratitude, and squanders bounty without remorse,—which is most difficult of access for any purpose of moral or spiritual improvement—in a word, the most hopeless of conditions. It is of this form of abject poverty that Mr. Girdlestone speaks as opposing "serious obstacles to the growth of almost every Christian grace,"—a form of poverty, let me add, which seems to offer a perfect physical parallel to that ignorance of the very name and being of a God, which, strange and sad to say, may be met with to this very day in almost any part of Christian England.

Now, gentlemen, to this state of abject, hopeless, wretchedness, thousands upon thousands of our fellow-creatures are being constantly reduced by the concurrent operation of causes, some within, others altogether beyond, their own control, among which, I do not hesitate to place, first and foremost, unnecessary disease. In an early lecture of this course, I shall be able to prove to you that from 25,000 to 30,000 of the labouring population of England and Wales are destroyed every year by fever and consumption and lingering diseases of childhood; and that, in addition to this great mortality, there is a vast amount of exhausting sickness, and, further, that in consequence of this excessive mortality and sickness, the working population is being continually drained of its scanty resources, whilst the wealth which should have furnished remunerative and reproductive labour to a healthy and robust population is being diverted into wholly unprofitable channels. This is one reason of the sad contrasts between the wealth of one class and the poverty of another of which we hear so much—contrasts which it is the interest and duty of every Christian man, and especially the duty of every Christian minister, to do everything in his power to efface.

But those of you who have practical experience of the actual condition of the great mass of our population in town and country, will be painfully conscious of the utter inadequacy of the most diligent and devoted home ministrations to raise the most wretched class from the state of abasement into which they have fallen. Suppose them to have been roused from their apathy and indifference, and to conceive a desire for a better state of things, the thought of the difficulties which lie in the way of their restoration must plunge them again into despair. To each remonstrance we may imagine them replying in some such terms as these—"We are conscious of our degradation; we know our danger; it is not by choice, but of necessity, that we live where and how we do; we cannot help it; we have not the means of procuring better accommodation; this crowding of young and old, men and women, into narrow rooms; this total want of all the means and appliances of cleanliness, decency, and comfort, has been forced upon us. In crowded cities a single room to a family is the most our scanty resources can afford; in rural villages the very laws under which we live offer a temptation, difficult to resist, to the owners of land to let our dwellings fall into decay, to raze them to the ground, and to neglect the necessary provision for an increasing population. Even if we could obtain constant employment (which is very far from being the case), our wages are most inadequate; the labour-market is over-stocked; we are exposed to the competition, not of industry only, but of idleness; while the resources of those who might give us work are exhausted by accumulated burdens. We cannot build houses for ourselves; we cannot, by our utmost exertions, procure the first necessaries of life; we are anxious for improvement, but we despair of effecting it."

To such a statement of the case it is difficult to furnish a satisfactory reply: it is still more difficult to suggest a remedy for the evils complained of. Indeed, we want, not one remedy, but many remedies. The evils are complicated, the remedies must be compound. The evils are not local, but general; the remedies, therefore, must be sought for beyond the limits of the parish. If so, ought the clergyman to go beyond the limits of his parish in search of them? Must he become a politician, and mingle in the strife of parties? God forbid! But, again, must tens of thousands of immortal beings be suffered to remain in this state of hopeless destitution and degradation? Again, I say, God forbid! How, then, shall we escape from this dilemma? How, but by boldly proclaiming that these evils which so profoundly affect the temporal and eternal interests of immortal beings do not belong to the domain of politics but to that of religion; that to designate them as political is to degrade them far beneath their true dignity; and that the Church cannot allow them to be taken out of her hands. Let it be boldly affirmed, that the provision of wholesome and sufficient accommodation for the poor is a religious question; that the sin of indiscriminate alms-giving, by which idleness is brought into competition with honest industry, is a fit subject for the cognizance of the Church; and that the pernicious habits and customs of certain trades and occupations, tending, as they do, to impoverish and degrade the people, are fitting subjects for religious remonstrance. Nor ought we to forget, that most physical evils acknowledge moral causes, as well as moral consequences and reactions. Some of them have their roots in covetousness, others in criminal carelessness and indifference, against both of which the Church is called upon to enter a perpetual protest. Let the Church of England continue to manifest the same interest in other questions of social improvement which she has shown in the great cause of sanitary reform, let her persevere in the wise and prudent course on which she has entered, and she will reap an abundant reward in the increased attachment of her own children and the enforced respect of those who differ from her.

CLINICAL LECTURES ON SURGERY,

AT

KING'S COLLEGE HOSPITAL.

By WM. FERGUSSON, Esq., F.R.S.

ON ANEURISM BY ANASTOMOSIS.

Gentlemen,—You are all aware that we have under our observation, at present, an instance of the disease termed aneurism by anastomosis, of an unusual and interesting character; the patient himself will be brought into the theatre, in order that you may have a better opportunity of seeing the case, and I shall make some observations upon it before he comes in. I may say, that, at the time he first was admitted into the house, I did not par-

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ticularly examine the leg, as the disease for which he was admitted was situated in the foot,—in fact, the young man was sent into the hospital in consequence of a severe hæmorrhage taking place from that part. There was a large aneurism by anastomosis implicating the sole and heel of the foot; from some reason or other, bleeding of a serious nature suddenly took place, putting life in danger: this was arrested by pressure. Of course, at my visit, my attention was drawn to this part; but Mr. May, one of my dressers, pointed out to me that one leg was much larger than the other, and this fact led me to examine more minutely, and it was then found that the disease was not alone confined to the foot, but that the vessels all up the leg were in an abnormal state. I have mentioned this, because it illustrates the maxim, that, when a case is brought before him, the surgeon should not be content with looking at that part which is apparently alone diseased. [The patient was now brought into the theatre, and laid upon the table.] You see now what the affection is: there is a large tumour, formed by dilated vessels, occupying about the posterior half of the lower portion of the foot; and there is an ulcerated spot upon its surface, through which the hæmorrhage occurred. You see now, too, what a great difference there is in the size of the two legs; that of the affected side is much larger than the other, especially around the calf. As soon as my attention was directed to this fact, I had little difficulty in making up my mind that the disease was not limited to the foot, but that it involved the leg as well; in the foot the disease is superficial, but in the leg deep-seated. If you were to look at the limb as you see it now, you would not be struck with anything particular about it; it looks healthy, but only more developed than the other. Now, this is not from any enlargement of the muscles, but there is an increase in size of the blood-vessels. Observe, now, when I press my fingers upon the posterior part of the leg; I can feel the blood, as it were, squeezed out of the vessels, and I imagine that, by means of a bandage, we could reduce it to a size as small as that of the sound limb. When the pressure is taken off, you will observe that the parts increase in size,—in fact, the vessels become filled again, just as a sponge becomes filled with water after having been emptied of it by squeezing. With respect to the tumour in the foot, which is entirely composed of a congeries of dilated arteries and veins, you will observe, that, by a sufficient amount of pressure, I can so reduce its size, that the whole foot does not appear larger than the opposite. There is a great enlargement both of the anterior and posterior tibial arteries, and there is little doubt that the latter is enlarged to a considerable extent up the leg. When I apply pressure upon the superficial femoral artery, you observe that the limb rapidly increases in size, and the veins become prominent and distended; and it is highly probable that the veins are, to a great extent, implicated in the disease. By applying the stethoscope over the course of the vessels, even up the thigh, a loud whizzing noise is audible, and a thrill is distinctly perceptible over the superficial femoral artery when the finger presses it against the bone; but, if you seek for the same phenomena in the other extremity, none such can be detected. This also leads me to believe that there is a dilated condition of the vessels the whole way up the limb. [Patient was removed.]

This case, gentlemen, is the most remarkable of the kind I have ever seen or read of. When it first came under my notice, I saw that it was one which required serious consideration to determine the best course to be pursued for the patient's benefit. He had been under the care of the late Mr. Liston and another surgeon of eminence, and, as nothing had been done by these gentlemen, you may take it as a kind of proof that there were peculiar features in the case to prevent them from active interference. Probably, at that time, matters were not so serious as they are now. A few days ago the boy's life was in imminent danger, in consequence of the occurrence of alarming hæmorrhage from the aneurismal mass on the foot. It is a good instance to show how formidable aneurism by anastomosis may be if it is left alone and increases much, for in these cases bleeding may and often does occur, and then life is placed in the greatest jeopardy. In this instance a firm compress was applied, and the hæmorrhage was arrested. Under these circumstances, then, it is necessary for the surgeon to interfere, and I feel it incumbent upon me to devise something for placing the boy in a safe condition. When first seen by me, I thought it would be a suitable case to put a ligature upon the anterior and posterior tibial arteries, by this means check the current of blood into the tumour, and then, if requisite, complete the obliteration of the mass by threads, and I thought of this practice as applicable to this case, because a case of a somewhat similar nature once fell under my care, when amputation of the foot was resorted to: the tumour here was situated about the great toe, but was not so large as this. I amputated, as that advice was given to me by my seniors. Reflecting on that case in after years, I was led to conclude that I might, by tying the vessels and attacking the tumour locally, have saved the leg, and at the same time have cured the disease. The idea of tying the tibial arteries was suggested when I first saw this lad at his own home, where he was under the care of my friend Mr. Tunaley, of Millbrook-place; but when he came into the hospital, and it was noticed that the vessels up the limb were affected as well, it was evident that this plan of treatment would not do alone, for we should still leave untouched a great portion of the disease. It becomes now necessary to resort to some other measures, but I can assure you there is great difficulty in deciding what is best to be done. Amputation has been mentioned, but I am desirous of saving the extremity; moreover, it would not be wise to amputate in such an instance,—it would be almost equivalent to cutting through an aneurismal tumour, so universally enlarged are the vessels; if this question be kept open we can only look to performing the operation in the thigh, but I should be reluctant in resorting to this severe measure. What, then, is best to be done? We have one or two plans. We cannot entertain the notion of local treatment alone,—except as a mere palliative measure; but this will not suffice for the patient, as his occupation is a laborious one. We must, in some way or other, obstruct the current of blood to the parts. Suppose we think of this. You have observed what happens when pressure is applied upon the femoral artery,—the diseased limb enlarges considerably; this shows that the tumour is to a certain extent, and even greatly, venous; and this circumstance makes me hesitate about doing that which has naturally suggested itself to my mind, viz., applying continual pressure by means of a tourniquet on the superficial or the common femoral artery. It is a great question as to whether it would be right practice to apply pressure here from this circumstance alone; but in addition to this the patient complains of considerable pain when I press pretty firmly with my thumb on the femoral artery. Nevertheless, we might apply it, and if it does not answer, we can put a ligature upon the superficial femoral artery. This will have the advantage of not interfering with the femoral vein, which we cannot well avoid by using compression with an instrument. I am, at present, rather inclined to treat the case by placing a ligature upon the artery; but still this plan of treatment must be properly considered, for it cannot be determined what effect this will have upon the disease; it may or may not have a beneficial effect. I do not think that the ligature of arteries for aneurism by anastomosis is followed by such good results as is supposed by some. Twenty or thirty years ago this plan of treatment was thought very highly of, but it must be confessed, that securing the vessel which leads to an aneurism by anastomosis will not *by itself* always succeed. However, in the instance before us, if I determine to tie the superficial femoral artery, and find that this measure will not entirely succeed in curing the disease, the means will still be left to me of attacking the vascular mass in the foot by means of ligatures or other local treatment.

Now, gentlemen, I have gone over the principal features of this very interesting case, and I have laid before you the modes of treatment which are applicable to diseases of this nature, but more especially to this one case, and I beg of you to turn them over in your own mind, and consider the methods I have proposed in all their aspects. We have need of serious deliberation here before anything be done, and, fortunately, there is now no occasion for hurry, as the patient shall be kept perfectly quiet in bed, consequently, there will be no fear of a recurrence of the bleeding, which was the most dangerous feature in the case. I myself shall take further time to make up my mind as to what shall be done for the best; you will soon have an opportunity of seeing some plan of treatment put in force, and I shall make a point of referring to the case again in a subsequent clinical lecture.

Before we part, however, permit me just to call your attention to another instance of vascular tumour, which we

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now have in the house. It is the case of the young man whom we have seen in the wards, with a vascular spot on the left side of the abdomen below the false ribs; you have observed that this tumour is seated in the centre of a large cicatrix, which resulted from my having operated on a former occasion. The man came here in the summer with a very large nævus involving the cutaneous and subcutaneous tissue. It was not a fit case for excision, but I deemed it a most proper one for the application of ligatures in the manner which you have often seen used by me. The operation was done, and the whole mass was destroyed, or at least appeared at the time to be destroyed; but the disease has recurred in the centre of the cicatrix, and there is now a vascular swelling nearly as large as a shilling, more prominent than the former; there appears to be something else beyond the mere ramifications of minute vessels,—in fact, it does not seem to be a simple nævus. My friend and colleague, Mr. Bowman, has examined this case, and he is of opinion—you know how valuable his opinion is in all such matters—that there is not only a return of the disease, but that it has degenerated into something of a malignant character. It is impossible to say whether this opinion is correct or not at present; we have no certain indication of malignancy of action, the patient is in remarkably good health, and does not look like a subject for malignant disease. However, we shall have an opportunity of discovering whether the mass be in any way malignant or not, for I propose to cut it out; it is of so limited a size now, that there need be no fear of severe hæmorrhage. Besides this remains of the vascular tumour, there is, as you have observed, a swelling of considerable size in the left groin, in the situation of the superficial absorbent glands; it is very hard and moveable, and has every indication of being an enlarged gland; the patient noticed the swelling to arise soon after I had performed the operation on the nævus, and it has gradually increased in size since, until it has now reached near the magnitude of an egg. The fact of its having appeared soon after the operation above referred to, leads me to suspect that it may possibly have some connexion with the disease or operation there. It would be premature, however, to give any decided opinion upon this matter, or as to the precise nature of the tumour; this will be seen when it is removed. Whether the swelling is of a simple or complicated nature, it will be best to remove it with the knife.(a)

ORIGINAL COMMUNICATIONS.

THE TEMPERATURE OF MALAGA, CONSIDERED AS A PLACE OF RESIDENCE FOR INVALIDS.

By A. McDOUGALL, Esq.,

Communicated by

HENRY J. McDOUGALL, Surgeon,

Fellow of the Royal Medical and Chirurgical Society.

A forced residence of several winters in the Mediterranean, having made me acquainted with some of its best climates, I may perhaps be rendering a service to some of my countrymen at home, by some remarks on the claims of Malaga to the attention of invalids. And I do so with the more readiness, because I have reason to think that the experience of an invalid gives him an advantage in estimating the characteristics of different climates.

My acquaintance with Malaga is confined to the winter of 49-50; but as the temperature was then lower than the average through most parts of Europe, my estimate will not probably err in being too favourable.

The great characteristics of the climate are the unusual *dryness* and *clearness* of the air, and the favourable nature of the two most trying months in the year, February and March.

It is not sufficiently impressed on invalids, that the climates generally resorted to for health may be arranged into two distinct classes, and that he who derives benefit from the one, is pretty sure to lose rather than gain from the effects of the other. At the head of the one class stands pre-eminently Madeira. At the head of the other we must, I think, place Malta and Malaga.(a) The latter class is characterized by the dryness and bracing nature of the air, as the former is by softness and humidity. While the air at Madeira is nearly saturated with vapour, it is at Malaga so much below the point of saturation, that a wet towel will frequently be dry in half an hour; and the vapour of the breath, condensed upon a glass, will pass off almost instantaneously. The soft and damp class of climates are necessary for those whose lungs are seriously affected, or whose mucous membrane is in an irritable state; but are injurious to nervous dyspeptic and hypochondriac patients. The dry class of climates are to be preferred by those who go abroad as a matter of precaution; for the system is braced at the same time that danger is avoided. It is by no means an infrequent thing for an inexperienced invalid to find that he has come to the wrong class of climate, and to be forced, at some risk and inconvenience, to remove to another in the midst of winter; thus I have known several, who have removed from Madeira to the coast of Spain and other parts of the Mediterranean, and some also who have been driven from Malta and Naples to Rome and Pisa.

Of the humid climates resorted to by invalids, the principal are Madeira, Palermo, Rome, Pisa, and Pau. The dry climates are, Malaga, Malta, Egypt, Naples, and Nice. The order in which the names occur is, as nearly as I can judge, the order of merit as far as climate is concerned; but it must be borne in mind, that there are many points to be considered in determining the suitability of a place of winter residence; and the circumstances of the invalid will, to a certain extent, decide which place is most desirable for him.

I have already classed the climate of Malaga with that of Malta. The whole winter may be compared to an English May. In November and even December, it is sometimes as warm as the latter end of May occasionally proves in England; and in January and February there are cold winds, such as often blow on our May-day. At both places there are but few wet days; though within these last few years there have been several wet winters in Malta. Malaga, however, is decidedly the driest, and it is not so windy, though days occur on which the wind is *colder* than at Malta. In the months of November and December, the indications of the thermometer are in favour of Malta. In January the temperature of the two places is about equal, or, if anything, in favour of Malaga; while the temperature of February and March is highest at the latter place. It is to be mentioned, also, that, while February and March are windy and trying months in Malta as compared with some other Mediterranean climates, they do not seem unfavourably distinguished at Malaga.

The advantages of Malaga as a residence for invalids, are, the dryness and brightness of the air: a brilliant sky and perpetual sunshine cheer the spirits; rain falls on only a small number of days; and a thoroughly wet day is of very rare occurrence. The country around is very pleasing, and affords opportunity for interesting walks and rides, and for the exercise of the pencil. Of society there is likely to be enough for invalids; and visitors more readily become acquainted than in some places were the numbers are larger and of a far more mixed description.

The chief disadvantages are, the limited accommodation, and the rather unsatisfactory character of the supplies; the single fault of the climate is the cold wind, which during

(a) On the following Saturday Mr. Fergusson operated upon this patient; he removed both the remains of the nævus and the tumour in the groin, by means of the knife; and it was then seen that Mr. Bowman's opinion as to the degeneration into malignancy was correct; for below the superficies of the former was a hard tubercle, which, when cut into, presented a very dark appearance, exactly similar to melanotic deposit. The tumour in the groin, which was enveloped in a cyst, was also black in colour, and, equally with the other, presented the usual character of melanosis. There can be now little doubt that one was in connexion with the other.—H. S.

(a) I do not mention Egypt. Dr. Wells' paper, communicated to the British Association, confirms the statements of my friends, that the range of temperature is there dangerously great.—A. M.

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winter comes down from the Sierra Nevada and the ranges of the Alpujarras. This is often dry and keen, and must be carefully avoided: there is fortunately a walk sheltered from this wind along the coast to the Eastward.

I proceed to give some short tables, which will afford a fair idea of the winter temperature at Malaga. The first is a table drawn up by a resident English physician, who kindly communicated it to me. The second is a register of the external temperature kept by a friend in the winter of 1849-50, at a house which does not boast of any peculiar advantages for invalids. The hours of observation were 10 a.m., and 10 p.m., and I take the mean of the two (which seldom differ by more than a degree) for the mean of the day.

The two other tables are from registers of the temperature in rooms occupied by invalids. The third table is reduced from the register of a friend. The fourth from my own observations. The apartments were in the Fonda de la Alamida, and faced the south, but on different floors, which accounts for their variation. Every care was taken to exclude cold air, but artificial heat was not available.

Table I.

	Average at			Maximum at			Minimum at		
	8 a.m.	2 p.m.	10 p.m.	8 a.m.	2 p.m.	10 p.m.	8 a.m.	2 p.m.	10 p.m.
January	51·6	58·3	53	58	63	59	46	52	50
February	52·8	58·2	53·6	61	64	62	44	52	46
March	58·3	61·6	59·2	63	66	65	56	58	57
April	60·7	63·7	61·8	63	67	64	58	59	58
May	67·8	66·4	64·3	70	76	70	59	61	61
June	71·5	75·1	71·9	76	81	77	68	71	69
July	75·9	78·9	75·6	80	84	80	74	76	73
August	77·4	80·9	78·4	79	86	80	74	76	75
September	70·6	74·8	71·6	77	84	78	68	72	71
October	62·7	67·3	63·3	67	68	67	63	65	64
November	59·3	62·1	59·6	65	68	65	54	56	53
December	54·7	60·2	56·6	62	65	63	48	50	48

Table II.

	November — Latter Half.	December.	January.	February.	March.	April — First Ten Days.
EXTERNAL TEMPERATURE.						
Mean of the day	60	55	53·3	57·25	59·4	65·1
Highest at 10 a.m. or 10 p.m.	64½	67	60½	61½	63½	73½
Lowest at ditto	56	41	43½	54	56	60½
Greatest range at either hour.	8½	25½	17	7½	7	10½

Table III.

	November — Latter Half.	December.	January.	February.	March.
INTERNAL TEMPERATURE AT THE FONDA DE LA ALAMEDA.					
At 8 a.m.	64·3	61	58·5	63	62·8
Noon	66·1	62·4	60·5	64·8	64·2
10 p.m.	65·8	62	60 3	64·5	63·8
Highest at any of those Hours	70	69	66	66	66
Lowest at ditto	63	52	54	62	62
Greatest range at 10 p.m.	4	15	11	3	3

Table IV.

	November — Latter Half.	December.	January.	February.	March.	April — First Ten Days.
INTERNAL TEMPERATURE AT THE FONDA DE LA ALAMEDA.						
At 7 a.m.		63·9	61·7	63·9	63·3	69·5
11 p.m.		64·9	63·3	65·1	64·6	
Highest at either hour		69·25	66·6	66·5	66·3	72·75
Lowest at ditto		57·25	58·75	62·3	61·75	64
Greatest range at either hour		12	7	3	4·3	8·75
Number of days on which rain fell	0	6	1	0	12	3

The most unsteady month was January. The mean difference of successive days was:—

External 2·3 Internal 1·0

The greatest difference was:—

External 7·5 Internal 2·91

In my own bed-room the thermometer never sunk below 57½, and very rarely below 60. In the room of the friend from whose observations the third table is drawn up, it sank on one occasion as low as 52; but only on six days during the whole winter was it observed below 55. The mean temperature of the external air was on 18 days below 50°, and on 32 days below 55°. Comparing this with Malta, the warmest of the bracing climates, I find that in the winter of 1847-48, there were 34 days on which the thermometer sank below 55°, at 7½ a.m., in a closed room with a northerly exposure, and 17 days on which it was below 55° at noon. It never sank below 50° during the day. There were 54 days on which rain fell, from November to the middle of April, but the winter was by no means a favourable one. On the whole, the range of temperature is decidedly greater at Malaga than at Malta, but the number of cold days is not so great.

In conclusion, I may be permitted to make a few remarks on the observations which may be made with advantage by invalids resident in a foreign climate. In order to enable an invalid to judge of the comparative advantages of different places, he should, I think, be informed, not so much what the external temperature is, but what temperature he may command in his apartments. Both are of course necessary to be known; but it is clear that, of two places of equal temperature, one may supply such bad accommodation as to render the invalid's room little better than the external air, while in the other he may enjoy a much warmer and more equable temperature. It is evident that some care and judgment are required in comparing and using such lists of internal temperature, and it will be advisable to have several from each place of resort. During the present winter, I shall endeavour to do this for Malaga; and should the state of my health allow, I shall be happy to prepare the results for your columns.

The external observations will be made about nine in the morning, or between nine and ten at night: the internal observations as early in the morning or as late at night as may suit the habits of my friends; and the maxima and minima will be observed externally, and the minimum in my own rooms. I mention these intentions, because they will serve as suggestions of the course which appears to me desirable.

Observations of the barometer and hygrometer; of the number of rainy and overcast days, and of the course of the wind, are desirable. The former instruments, however, are not likely to be used at Malaga; and the position of the town, together with the frequent absence of clouds, will, I fear, render it very difficult to give a true table of the course of the wind.

The effect of the climate on our fellow-invalids is worth recording, both as regards their improvement and their state during the winter. I have found that, while in one place we find our acquaintances melancholy and indolent, in another

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they are much more disposed to take an interest in various pursuits.

Lastly, I would suggest that some improvement is desirable in the manner of drawing up tables from the registers. A month is rather too long a period for which to strike an average. The periods might with advantage be a fortnight, or even ten days; and the keeping to the months at all is perhaps rather unphilosophical. In meteorological tables we often have *yearly* averages of temperature, range, &c., which are quite useless to the invalid; and those for the four seasons are not much better.

A very useful aid to the judgment has not, as far as I am aware, been in use. I mean a record of the number of days when the minimum, mean, and maximum temperatures were below certain stated points. Comparative tables, drawn up in this way, would, I think, be highly useful in determining the relative value of climates.

24, Henrietta-street, Cavendish-square.

NOTES ON THE TOPOGRAPHY AND DISEASES OF UPPER SCINDE.

By A. CAMPBELL, Esq., Surgeon,

Late of Her Majesty's 22nd Regiment.

The cantonment of Sukkur and the fortress of Bukker are situated in latitude 27° 42′ north, and in longitude 18° 96′ east, separated by a nearly equal division of the Indus. The native town of Horee is built on a range of high lime-stone hills. This range extends south-west for about 100 miles, and a few miles to the north-west, gives place to the alluvial flat which extends to Shikarpore and the Hala range of mountains. The course of the Indus through this plain and to the sea is in a winding direction from north to south. The forts of Bukker and Cantonments are 100 feet above the river, and 600 feet above the level of the sea.

Bukker Fort is of an irregular circular figure about one mile in circumference; the river runs deep and rapid on three sides. Many palm and peepul trees grow on and around the outworks.

The interior of the fort is very irregular, covered in all directions by the rubbish and ruins of houses, mosques, and military buildings. There are no good or even habitable houses for Europeans. The bazaar is filthy and nearly in ruins. The fort contains a large magazine of gunpowder and other ordnance stores, also a treasure vault. Bukker has the appearance of antiquity; its walls, though originally well-constructed, are fast falling into decay.

The cantonment of Sukkur, the temporary barracks for the accommodation of European troops, are on a ridge of stony lime-stone about 150 yards from, and north-west of the Indus. The building is about 300 feet in length, constructed of unburnt brick. A verandah extends along the side. The floor is formed of mud, the roof flat and low. There are door-ways and apertures for windows, but neither doors nor windows, the substitute being a thick woollen material. The accommodation for European soldiers in Scinde, at the time I resided there, was most wretched—no conveniences and barely the necessaries to support life. Since then, I believe, good barracks have been built on a ridge about a mile north-west of the river, but remote from water.

The eminences round the cantonment are covered with tombs and mausolea fast falling into decay. To the westward of the camp is a considerable space of flat alluvial land covered with date and palm trees which extend to some distance along the banks of the river. There are many good gardens and well-cultivated fields in the vicinity of Sukkur; both irrigated from the river by the water being elevated by the Persian wheel; the same mode of irrigation extends all along the river and many miles inland, where it is intersected by canals and water-courses.

The soil in the valley of the Indus in Upper Scinde is alluvium, a mixture of clay-sand and lime; the latter predominates; the soil is everywhere rich, and cultivation extensive and very productive.

Produce.—Sugar-cane, indigo, tobacco, opium, and cotton:—the latter irrigated by the river. The grains cultivated are chiefly "jawarree," "Bajiree," wheat, and barley—these are of good quantity and quality. Several oil plants are also grown. The gardens along the river produce peaches, apricots, and pomegranates; some grapes and limes are also to be seen, but both of an inferior kind. Esculent vegetables are very deficient, although the soil would yield abundantly by good cultivation and irrigation.

The town of Shikarpoor, about eighteen miles from Sukkur, is situated on an elevated patch of high land, surrounded by swamps and marshes. The Scinde Canal, having its source from the Indus, runs near it, and pours over the plain a great body of water during the inundation months. The rise of the Indus, during the inundation months, is, on an average, 15½ feet.

The water of the Indus is very similar to the Nile,—very muddy, densely so during the inundation; it contains silex, alum, and carbonate of lime, and a considerable quantity of organic matter; the latter, during the monsoon, gives an offensive odour to the water, which tastes of decomposition if left any time in a vessel. The water is easily purified by mixing with it a few grains of alum to a gallon, when it becomes perfectly clear and pleasant to drink. I regard the water of the Indus and Nile as very wholesome.

Climate.—The seasons of Upper Scinde are divided into hot and cold, the duration of the hot being about seven months, and the cold five months. March is considered the first of the hot months, and October the first of the cold. The winds blow from the sandy desert adjacent. The thermometer frequently continues as high as 97° during the night.

The prevailing winds and range of the thermometer are shown in the following Table during nine months of 1842*:—

Months.	Thermometer.			Mean of daily Maximum.	Prevailing Winds.
	Minimum.	Maximum.	Mean of daily Minimum.		
*April	69	111	73	103	South.
May	77	112	74	103½	South-East.
June	86	113	90	104	South.
July	84	105	86	94	South.
August	84	105	86	98	South-West.
September...	78	103	88	95	South-West.
October	70	97	75	90	South-West.
November..	62	88	66	81	North-East.
December...	61	87	65	80	Easterly.

* Illustrative of the intense heat in tents, I see by my notes that, on accidentally visiting Lieutenant Smith's tent, (a double-walled one,) bleeding profusely from the nose, face flushed, pulse quick and full. He was immediately removed to a sheltered place, and by the pouring of cold water over his head and body, his life was preserved. Upon placing a thermometer in the tent, date, 29 April,—hour, 3 pm., it rose to 119 degrees.

Periodic rains never visit Scinde, though occasional showers. Exceptions to this occurred in 1843, when heavy rain continued to fall from the 26th of January to the 1st of February, retarding the march of the army under the command of Sir Charles Napier for several days. The cultivation of the soil is entirely dependent on irrigation from the river. The heat in Upper Scinde is as high, if not higher, than in any part of India, having a most debilitating effect on European constitutions, predisposing them to the influence of malaria. The natives of the country, however, bear it surprisingly.

Population.—The inhabitants of Upper Scinde are composed of Scindees, Mussulmans, Belloochies, and Banians. Hindoos—of these there are several castes. The first are generally the cultivators of the soil, the boatmen on the river; they live on animals, vegetables, pulse, but chiefly fish, which latter is in abundance. Meal made into cakes, with ghee, forms the chief food of the poorer class. The habit of drinking the infusion of the leaves of the *cannabis sativa* (bang) is general after meals; it is most exciting and intoxicating. Notwithstanding this poor diet, they are a fine race of men,—more especially the Mussulmans,—physically well formed, tall, and muscular.

The native police of Scinde, prior to the English rule

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were composed of Belloochies, or mere cultivators of land which had been given to them for such services.

The Hindoos are chiefly engaged in small dealing in articles of food and clothing, which they hawk about.

Diseases among the natives are fevers of the intermittent type, rheumatism, and variola. The former seldom proves fatal except from visceral disease. Variola proves most fatal; whole villages are decimated by the disease. Many persons, when attacked, are turned out into the fields and there left to their fate. Vaccination, so far as I could observe, was unknown, or but little practised. Of course this will receive attention from the East India Government.

The influence of the climate of Scinde is most destructive to the health of Europeans and extremely fatal. "Apoplectic fevers" are frequent, and generally prove fatal. The seizure is sudden, showing either a complete state of apoplexy or cerebral fever; the former terminates fatally before or soon after reaching the hospital. The leading symptoms were, intense head of body,—upon applying the hand to the surface, a sense of burning heat also was felt; pulse rapid; action of the heart strong and tumultuous; pupils contracted; conjunctivæ highly injected; drowsiness amounting to coma. In this state, although immediately seen, and the most active measures adopted, the majority of cases die within a few hours. The remedial measures were—the abstraction of blood from the arm, neck, or temporal artery; pouring water, cooled as much as possible, over the head; the feet being at the same time placed in warm water; shaving the head and applying cooled water.

In dissections of those who died suddenly, and where remedial means could not be of avail, there was uniformly evinced high vascularity of the meningeal vessels and substance of the brain, numerous bleeding points being seen on sections being made—the choroid plexus highly injected. In every instance there was found a preternatural effusion into the ventricles, the largest quantity in those who had survived the longest after the apoplectic attack; very little serum between the dura mater and arachnoid membrane.

The *Stomach* was found vascular; its mucous surface presented marks of inflammation, generally in rose-coloured patches, principally near the pyloric extremity; in some cases this inflammatory appearance was more extensive, occupying the entire circumference, especially in cases where incessant vomiting was present, constituting the *gastro enterite* of Broussais.

The intestines were seldom involved in the disease.

Liver was often found engorged, but no other lesion. The gall bladder generally distended with viscid bile.

During the epidemic of Sukkur, in October 1842, all the detachment of 112 men was affected with ague, with the exception of two, but not simultaneously. The form of fever was singularly irregular, changing its type from quotidian to tertian, often maintaining no determined type, and may be justly styled erratic fever. In some cases the cold stage was altogether absent; in others no hot stage; again there has been a cold and hot, but no sweating stage; occasionally the disease was imperfectly developed, the patient only experiencing slight chills and general indisposition, or what is termed "dumb ague." Relapses of the Sukkur fever at particular lunar phases were constant, and only two soldiers of the detachment escaped the disease, one of whom was seized with a violent remittent fever on reaching Poona. His health was so impaired that it was found necessary to send him to England.

Remittent fevers differ but little from the other more numerous forms, except in intensity. Prompt treatment is requisite.

The abstraction of blood in the remittent and intermittent fevers of Scinde, should never be practised except in the most urgent cases, as the restoration of strength during convalescence is most tedious and difficult.

I omitted to remark, that no irritability of stomach is attendant on the fevers of Scinde, forming a striking contrast to the fevers peculiar to British Guiana, where vomiting was the most difficult and distressing symptom to subdue.

Owing to the lengthened exposure to extreme heat in Sukkur, the constant recurrence of fever, confinement, and unvaried diet, the troops became emaciated and feeble, scarcely able to walk even a short distance. On one occasion, a funeral party, consisting of a sergeant and twelve men, marched to the place of interment, about a mile distant, and so exhausted were they, that nearly all had to be carried back. To sleep in the barracks of Sukkur during the hot season is almost impossible, the heat being so intense. During the hot months, the European soldiers made their beds and slept in the open air, without any instance of injurious effect.

Derangement of the gastric system was present in the majority of cases affected with febrile disease; characterised by loss of appetite, indifference for food, excessive development of gas, abdomen tumid and tender on pressure, especially the epigastrium; there was also a sense of weight or sinking, and unquenchable thirst.

Our European officers having had shelter from the heat, suffered little from disease; but the effects of long confinement, and continued heat, were remarkable; all complained of loss of appetite, lassitude, and extreme debility, the slightest exertion causing profuse perspiration. *Lichen Tropicus* occasioned great annoyance.

FEMORAL ANEURISM.

COMPRESSION.—CURE IN 24 HOURS.

By STAFF-SURGEON G. R. DARTNELL.

Private William Povey, 1st battalion 12th Foot, service thirteen years, of which five in the West Indies; an Englishman, labourer, aged 35 years; height 5 feet 7½ inches; robust make, dark and swarthy complexion; has always enjoyed good health. Joined the 12th Regiment about a month ago, a volunteer from the 76th; had a bubo in each groin five years ago, both of which suppurated, but asserts that he never had the venereal disease in any form. He was admitted into the Regimental Hospital, Chatham, on the 16th instant, complaining of pain in the lumbar region and left side below the ribs, occasioned, as he thought, by exposure to cold. On the 18th, the pain of back and side were entirely removed, but he directed attention to a pulsating tumour, about the size of a pullet's egg, on the anterior aspect of the left thigh, occupying a portion of the triangular space, within two inches of Poupart's ligament. He stated that he had only observed the swelling that morning, and that he was not aware of having made any violent exertion lately; but that for some time previously he had experienced a sensation of numbness and slight pain in the leg and instep.

The tumour in the groin is now rather larger than the longitudinal section of a hen's egg. It is pulsating very powerfully with a distinct bruit; is firm and elastic to the feel, but can be partially emptied of its contents by the pressure of the hand, and the pulsation entirely ceases under firm compression of the inguinal artery by the fingers. The circumference of the diseased thigh, over the tumour, is 19½ inches, that of the sound one 19 inches. He has some numbness in the leg, extending from the knee to the foot. Temperature of the limb natural; pulse at the wrist 80. Considerable diffuse pulsation is observable over the abdominal aorta, a little below and to the right of the scrobiculus cordis; the stethoscope gives, at this point, a very distinct bruit; a faint rasping sound at the site of the mitral valve, and a double bellows murmur at the apex of the heart; general health good; bowels regular. Rest in the recumbent posture; low diet.

31st, 10 a m.—No change.

3 p.m.—Aneurismal compressor applied, the pad of the instrument being placed over the external iliac artery, as it passes over the pubis, two inches above the upper edge of the tumour. The artery is under the complete control of the instrument, but its power is so regulated, that the current of blood is only partially checked, a feeble pulsation being still perceptible in the tumour.

6 p.m.—Pressure of the pad rather irksome; still slight pulsation in the tumour; temperature of the limb reduced, with a numbness about the knee. Pad slightly shifted; pressure increased by a few turns of the screws.

9. p.m.—No pulsation in the swelling; pain from pressure of the pad a good deal complained of; but patient having been made fully aware of the nature of his complaint, and the principle of the treatment, bears the pain without the least fretting or restlessness. Numbness and coldness of the limb increased; pressure slackened by a few backward turns of the screws, and the blood permitted again to pass feebly through the aneurismal sac. Frictions to the limb, and bottles of hot water to the foot. Some thirst; no arterial excitement; pulse 80.

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June 1, 6 a.m.—Has had no sleep, and still complains of the pressure of the instrument. Tumour still pulsating feebly, but begins to have a firmer feel; numbness rather less, and temperature of the limb returning; no swelling or discolouration from obstruction of the venous circulation. Pad lifted from its position, the artery being commanded by the fingers a little higher up; integuments under the part very slightly reddened; parts cooled and sponged with cold water; instrument re-applied in quarter of an hour.

10 a.m.—Temperature of the limb nearly natural; very little uneasiness from the compressor since the morning visit; patient tranquil and in good spirits.

1 p.m—Feeble pulsation still perceptible, but the tumour loses more of its elastic feel, and it is evident that the formation of fibrine is going on; limb of natural warmth; numbness less; pad screwed down so as to stop the pulsation completely.

3 p. m.—No pulsation since last report; the aneurismal swelling has entirely lost its elasticity, and appears to be completely solidified; very little uneasiness from the instrument, which is left undisturbed. Twenty-four hours since its first application.

8 p.m.—Pressure entirely removed by lifting the spring; tumour still without the slightest pulsation, and as solid as a stone; compressor re-applied after a few minutes, but with diminished power.

June 2, 6 a.m.—Patient has had some sleep, and has no discomfort or inconvenience from the truss; tumour solid, contracted, and pulseless; temperature of the whole limb natural; sense of numbness greatly diminished; complains of a little pain in the fore part of the leg, and slight thirst.

8 p.m.—Remains as at the morning visit nearly, but feels more comfortable; continue the instrument as a security.

June 3, 10 a.m., 67 hours.—Has had a good night's sleep; tumour further reduced in size; temperature natural; posterior tibial artery felt beating feebly. The truss removed altogether; integuments under the pad scarcely reddened; patient quite comfortable and general circulation tranquil; pulse 75; tongue clean; no thirst, bowels confined. ℞ Ol. ricini ʒj.; sponge the limb with cold water.

8 p.m.—Bowels once moved by the oil; patient continues well and free from all complaint; tumour solid and somewhat flattened in shape.

June 4, 10 a.m.—Patient slept well; has a little pain in the leg and instep; and is weak from confinement to bed and reduced diet; in other respects quite well. The instrument has not been re-applied.

Oct. 25th.—Nothing further to detail from the date of last report; the absorption of the tumour has been slow but progressive, and scarcely a vestige of it now remains. The patient is in excellent health, and has apparently quite lost the threatening symptoms of general arterial disease he had on his admission into hospital; he still, however, complains of a very slight sense of numbness about the inside of the knee, and a trifling degree of weakness of the limb; but these symptoms are gradually wearing away. He was discharged on the 26th Sept. for two months' sick furlough, previous to rejoining his regiment, it being thought inexpedient to subject him too soon to the very severe and fatiguing duties of drill.

At the risk of being thought tedious, I have given the notes of the foregoing case in detail, conceiving that it may be thought interesting to trace the progress of the cure. The visits, it will be observed, were made at short intervals; and I am of opinion that, in the treatment of aneurism by compression, it is of the greatest importance that the surgeon who undertakes the care of the case should be unremitting in his attention to the patient. Much of the success depends upon his watchfulness, not only in regulating with nicety the stream of blood through the sac, and in watching for the favourable moment when it arrives, to stop it altogether; but in alleviating, as far as possible, the sufferings of the patient from the continued pressure of the pad, by such delicate and careful manipulations, or shiftings of the instrument, as it is practicable to make. This is especially requisite in cases where a second or relieving clamp cannot be applied.

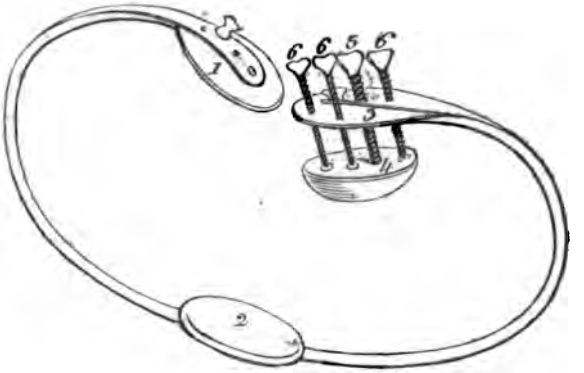
The critical moment, it appears to me, when the current of blood may be stopped altogether with effect, is when the deposit of fibrine has begun to take place, as evidenced by the loss of elasticity, and increasing firmness of the tumour; and when the collateral circulation has become fairly established, as indicated by the restoration of the natural temperature of the limb, though the stream may perhaps very judiciously be suspended now and then, for a short interval of two or three hours at an earlier period, and then be permitted to flow again as before. These occasional checks throw the impetus of the arterial current with new and greater force upon the anastamosing branches, thus tending to their enlargement.

The result of the above case is interesting, from the rapidity of the cure, as well as its apparent completeness under what seemed to be adverse and discouraging circumstances; and it is satisfactory to remark, that no local injury whatever was sustained from the instrument, although the pressure was continuous, there having been no means of applying a second elsewhere in the line of the artery, as recommended by Mr. Bellingham, and practised with so much relief in cases of popliteal aneurism. The integuments under the pad were hardly reddened, and the sufferings of the patient after the first few hours, were comparatively trifling.

The instrument used in this case, as a *Presse Artère*, was a very simple modification of an improved hernial truss invented by myself.(a) The truss selected was a double one, with a strong spring, the extremity of which, on the left side, was slightly altered in its curve, so as to bring the pad directly over the external iliac artery, as it emerged from beneath Poupart's ligament. For the ordinary wooden pad of this truss were substituted two oval plates of steel, the upper one attached firmly to the end of the spring; the lower connected with the first by four long screws, so managed as to increase or diminish the space between the plates, thus enabling the surgeon to gain a small amount of additional power. To the lower plate was fixed a rounded piece of cork, covered with a cap of chamois leather, and modelled with a gentle ridge or elevation along the centre, which was intended to prevent undue pressure on the vein or nerve on either side, while the ridge itself pressed directly upon the artery. The perineal strap of a common truss was attached, which, when buttoned to the upper plate, augmented the resisting power of the spring, and, consequently, the additional force of the screws, which would otherwise be divided equally between the spring and the part compressed.

I am far from supposing the instrument above described to be perfect, but, in the absence of a more legitimate one, it was the readiest contrivance I could command, and it answered the purpose in this case extremely well. I have since learned that a somewhat similar apparatus was made use of, several years ago, by the late Mr. Todd, of Dublin, in his attempt—the first, I believe, that was ever made—at the cure of a case of femoral aneurism by compression. An account of that very interesting case, and of the instrument, will be found in the third volume of the Dublin Hospital Reports.

Sketch of Staff-Surgeon Dartnell's Double Hernia Truss, modified for Compression of the External Iliac Artery in a Case of Femoral Aneurism.



1. Ordinary wooden pad of the truss, right side.
2. Sliding back pad.
3. Upper steel plate attached to the spring.
4. Lower ditto, with cork pad.
5. Larger screw connecting the two plates.
6. 6. 6. Lesser screws, for regulating the distance between the plates.

(a) This truss is now in general use in the army, and has already been noticed in the pages of this journal. The modification used in the above case, as well as a specimen of the truss itself, may be seen at Messrs. Weiss', surgical instrument makers, Strand.

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THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

BY

W. SENHOUSE KIRKES, M.D.,

Medical Registrar,

AND

HOLMES COOTE, Esq., F.R.C.S.,

Demonstrator of Anatomy in the Medical School.

ABSCESS IN BONE.

INFLAMMATION OF THE CANCELLOUS TEXTURE OF THE HEAD OF THE LEFT TIBIA, FOLLOWED BY DIFFUSED SUPPURATION —REMOVAL OF A PORTION OF THE WALL OF THE BONE WITH THE TREPHINE—EVACUATION OF THE PUS, AND EXTIRPATION OF SEVERAL PORTIONS OF SOFTENED, DISCOLOURED, AND DEAD BONE—GRANULATION OF THE WOUND.

For the particulars of the following case I am indebted to Mr. Gatty.

James B—, aged 37, a light-complexioned but stoutly built man, states, at the age of 14, without any obvious cause, an abscess formed over the head of the left tibia. It burst, and there escaped a considerable quantity of healthy pus. The wound, however, for some time did not completely heal; fistulous passages formed, through which, upon several occasions, portions of dead bone made their way. After the exfoliation of the last fragment, the wound cicatrised firmly, and remained in a perfectly healthy state for twenty years. In the month of September, 1850, there formed, in the same situation, a second abscess, which burst in about a fortnight. Finding that the abscess did not heal, and that the limb was swelled and painful, he came to the hospital and was admitted under Mr. Stanley, September 21.

The whole limb is hot and swelled, and the synovial membrane of the left knee-joint is distended by fluid. A sinus leads from the point where the abscess burst to the inner side of the head of the tibia, into the interior of which the probe seems to pass. The patient has suffered severely in health; his strength is much reduced; the appetite is bad; he cannot obtain rest at night, and is wholly unable to move about. He was directed to keep quiet in bed, and to take a mild but nutritious diet.

Rest, combined with proper local applications, brought the joint to a quiet state, and the fluid effused into the synovial membrane became absorbed; but, although every apparent exciting cause was removed, there formed again about the head of the tibia several small collections of matter, which were successively opened. The patient's health, however, had improved so much whilst in the hospital, and he expressed himself so free from pain in the seat of disease, that it was thought advisable by Mr. Stanley to allow him to sit up for a short time daily, the limb being first bound in a flannel roller, and the joint being properly secured. In the course of a few days the joint again became hot and inflamed, and the synovial membrane distended by effusion of fluid. A large collection of matter formed, upon this occasion, at the back of the leg, extending from the upper part of the calf along the popliteal space. Feverish symptoms ensued, and he complained severely of the pain, until the collection of pus, very large in quantity, was evacuated by lancet-puncture. The discharge of matter greatly reduced his strength, and for some time he remained in a dangerous state. The question then suggested itself as to the propriety of removing the limb by amputation above the knee; but Mr. Stanley, believing, from the history and the symptoms of the case, that, in all probability, the head of the enlarged tibia contained a portion of dead bone, which was exciting inflammation in all the surrounding textures, proposed to the patient the operation of cutting down upon the diseased spot, and removing whatever might prove likely to be a source of irritation.

Dec. 14.—Chloroform having been administered, the thickened tissues were divided over the inner surface of the tibia down to the bone; some active hæmorrhage ensued, the vessels having become enlarged by the frequent recurrence of the inflammatory attacks. The integument was then reflected, and, by the trephine, a large circular portion of the bone was removed; by which proceeding the cancellous texture was fairly exposed. Upon examining the circular piece of bone, Mr. Stanley remarked, that its inner surface was lined by a soft grey vascular growth, similar to that which has been described in many situations as "pyogenic membrane." It was continued into the interior of the bone, the cancellous texture of which, soft and discoloured, was infiltrated by pus. All the bone which appeared in an unhealthy state was scooped out with a strong knife, and a deep cavity was left, whence blood flowed in considerable quantity. He was put to bed, with directions that lint dipped in cold water should be kept constantly applied to the wound until the hæmorrhage ceased. In a short time, there was no further flow of blood, and the patient, who experienced only a little sickness from the effects of the chloroform, soon expressed himself free from pain. He had felt nothing whatever of the operation.

17th.—Has had no bad symptom. The tongue is clean; the pulse slow and feeble. He takes light nourishing food with appetite, and sleeps well. From the wound, which gives him no pain, there is secreted an abundant, healthy, puriform discharge.

Dec. 30.—The whole wound is healing; the deep hollow left in the head of the tibia is in great part filled by a mass of florid healthy granulations, which form a continuous layer with the granulations of the surrounding skin. The discharge is moderate in quantity, thick, and purulent. The patient expresses himself much relieved by the operation. He sleeps well; pulse quiet; skin cool.

The portions of bone which were removed from the tibia were carefully examined after maceration. They consisted of the cancellous texture of the tibia, perfectly white in colour, light, and brittle. Mr. Stanley entertained no doubt but that the bone was dead.

"Suppuration in bone, observes Mr. Stanley, is in some cases of small extent, and the matter is contained in a single round or oval cavity hollowed out of the substance of the bone. But in other instances the matter is diffused more or less extensively through the cancellous texture or medullary tube of the bone. Thus the abscess in bone is conveniently distinguished into the circumscribed and the diffused."(a) The case here related, illustrating the effects of this most formidable disease, is an instance of the latter variety. An abscess forms in the leg of an apparently healthy boy; it bursts, and, after giving exit to some pieces of dead bone, heals; the cicatrix remains firm for above twenty years. Then a second abscess forms; severe pain in the limb, accompanied by general constitutional disturbance, ensues; and, upon the removal of a portion of the outer wall of the tibia in the immediate seat of the repeated inflammatory attacks, the cancellous texture is exposed, lined by a vascular, pyogenic membrane, infiltrated by pus, and, although not detached from the surrounding healthy bone, so as to constitute a "sequestrum," yet soft, dark-coloured, and to all appearance dead. It should be remembered that under some circumstances necrosed bone will retain its attachment for a considerable time to the immediately contiguous textures, and some violence may be required to effect its complete separation. Under the head of "Caries of the Tibia," the late Mr. Hey, of Leeds, relates three cases similar to the above in all important particulars, and he remarks with reference to the first, "I am inclined to think that an abscess was formed within the tibia, and that during this period (*i. e.*, a period when the patient was suffering severe pain) the matter was making its way through the anterior lamella of the tibia, and that the pain abated soon after the matter had perforated the bone.(b) In all the cases Mr. Hey adopted the course here pursued by Mr. Stanley, namely, that of cutting down upon the bone, removing a part of the outer wall with the saw and trephine, and then extirpating the "carious" bone with a sharp strong knife, or by means of small chisels. In the first case, he removed the diseased cancelli of the bone quite through to the opposite lamella, as this part of the bone was carious throughout its whole thickness. All the cases terminated favourably. But, in every case, the disease had lasted so long, that its nature was become manifest, after much suffering on the part of the patient, by the formation of a permanent fistula through which the probe passed to denuded and rough bone. To Sir Benjamin Brodie is due the merit of pointing out the symptoms which indicate the presence of matter in small quantity

(a) On Diseases of the Bones, p. 82
(b) Hey's Surgery, p. 81.

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in the interior of a bone, and of proving that, by perforation, its escape may be effected with early and complete relief. Mr. Stanley has, in the work above quoted, related several cases, which show that but for this treatment changes take place in the bone and the neighbouring joint, which render necessary the amputation of the limb.

It is this disease which has heretofore been described under the head of "spina ventosa." The term "spina," to express the nature of the pain attendant on the disease; the term "ventosa," either as applied to the soft, puffy, and apparently emphysematous appearance produced by the matter when it had escaped under the integument; or, as is more probable, implying a belief (from the examination of one of the cysts whence the matter had previously escaped) that the contents had been originally air.

The pathology and the treatment of this important class of disease are fully described by Mr. Stanley, in his account of "Suppuration in Bone;" and the museum of the hospital contains a series of preparations which illustrate his remarks.

Prep. 161 (Series 1) is the section of a tibia, exhibiting various changes of structure connected with suppuration in its medullary and cancellous texture. The cancellous tissue is in some situations consolidated by the growth of bone in it: in others it is partially filled by lymph and pus. The walls of the bone are throughout greatly thickened; and in some parts of them there are ulcerated passages leading to the medullary cavity. (a) The disease may occur in any of the long bones, but the bones of the tarsus seem also very liable to be so affected. It has been frequently noticed in the os calcis, either as the result of accident, or occurring spontaneously: it sometimes attacks all the tarsal bones.

The two bones most frequently the seat of circumscribed abscess are the tibia and the femur. The cavity, the formation of which not unfrequently is connected with the deposit of tubercle, is lined by a continuous soft vascular membrane, which usually secretes pus; but, in chronic cases, sometimes a serous fluid. There are several preparations in the museum, showing the course which the fluid will take. In some cases it makes its way outwards through a fistulous passage in the bone. In others it opens into the neighbouring joint, when acute disease is set up, which usually renders necessary the loss of the limb. M. C.

METROPOLITAN FREE HOSPITAL.

By JOHN L. MILTON, Esq., M.R.C.S.E.

NECROSIS OF THE SPINE OF THE SCAPULA.—REMOVAL BY THE KNIFE.

The first patient on whom Mr. Childs proceeded to operate, was a boy of twelve years of age, slightly pitted with the small-pox, and of a delicate scrofulous look. The history of the case, which excited great interest, was given us as follows by his stepmother:—

About eighteen months ago, a painful but colourless swelling formed on the upper and back part of the right shoulder, for which the boy was taken to the Royal Free Hospital. The abscess slowly became purple at the top, burst, and healed; and this process was repeated two or three times; at last it refused to heal at all. The patient was placed consecutively in St. Bartholomew's, Guy's, and St. Thomas's, but without any great benefit resulting from these changes. His father having a consumptive tendency, and his mother having died of consumption, were enough to pre-suppose a phthisical or scrofulous diathesis, added to which was the scrofulous appearance of the sore, which now never healed under any treatment. Meanwhile, smaller abscesses had formed in the neighbourhood of the first one, but had burst, and healed up again. Sea-bathing was recommended, but the poverty of the family was an insurmountable obstacle. Cod-liver oil was tried at various times, but, from some cause or other, was never continued long. Steel wine was also given with no better result.

The child has never been strong, and some time previously to the formation of the first abscess, fell in a way that might have injured his shoulder, but, as neither he nor his parents paid much attention to the accident till the abscess made itself remarked, it cannot have been very severe. On examination by the probe, the instrument at once passed down to the spine of the scapula, which was found rough and bare over a considerable portion of its extent.

In this state of things, Mr. Childs considering that the scrofulous diathesis was greatly maintained by the lowering tendency of the disease, determined at once to remove the necrosed bone. On Friday last, Jan. 24, he, in the presence of the medical officers of the hospital; of Mr. Gay, Dr. Snow, (who administered the chloroform,) and others, cut down upon the seat of disease, and after dividing the attachments of the trapezius and deltoid, as well as separating the supra-spinatus and infra-spinatus from the bone, the whole spine was fairly exposed, and was found dark-coloured and brittle. This was soon removed by the bone-nippers and gouge; the acromion and the ridge of bone attaching it to the back of the scapula being healthy, were left intact, and the sides of the wound brought together by stitches, no vessel having been wounded.

The *necessity* of surgical interference is, we think, justified by the history we have given of it; and we sincerely hope that a successful issue will show the *utility* of this interference.

NÆVUS.

The next patient was a child just turned twelve months, who was brought about a week before to the hospital with a large nævus on the left part of the upper lip, extending from the coral margin to within a short distance of the left eye, the line surrounding it passing not far from the nose. It was very prominent, and produced great deformity.

At the time of birth it was a small red spot, or mother's mark, not larger than a threepenny piece. At the end of some months it gradually cracked, grew larger, discharging a bloody serum, and at last began to exhibit blue veins on its surface. The grandmother then took the little patient to a surgeon, who applied nitric acid to the spot every day for a period of five or six weeks. This process caused intense pain, but, so far from producing any diminution, the lump rapidly attained nearly the size it now has. (a)

Mr. Childs having passed an armed needle through the tumour from above downwards, the loop was cut through as soon as it protruded; the thread on the inner side was carried through the eye of the needle, and the tumour was transfixed from within outwards; before withdrawing it, it was threaded with the outer thread, which was brought through by the needle being pulled backwards again. A crucial incision was then made over the tumour, the four flaps reflected back, and the tumour strangulated by the threads. When the child was seen, half an hour afterwards, the tumour was in a state of strangulation.

Mr. Childs performed another operation on a necrosed portion of bone; the case was one of interest, and we hope on some future occasion to refer to it. In every respect, this hospital bids fair to work well, and we cannot conclude this report without complimenting the Governors on its recent removal from Carey-street to its present site. Placed, as it now is, in the midst of the densely populated districts of Spital-fields, Houndsditch, and over-crowded Whitechapel, it cannot fail to rise, and must speedily become a boon to the suffering poor around. Unostentatious and humble, it has already relieved some thousands in its neighbourhood, and we were much struck with the number of poor Jews who sought for relief. The operating-room is light and spacious; and, as a sufficient number of beds can at any time be secured, we hope great things from the energy of the medical staff and high standing of those who support it.

(a) Catalogue of the Museum.

(a) The immortal Dieffenbach, in his last and greatest legacy to the scientific world, says: "Often have I seen the aneurism by anastomosis (telangiektasie) arise from the nævus (angiektasie). This sometimes happens after treatment by astringent applications."

THE WATER SUPPLY OF LONDON.—Dr. Graham, Professor of Chemistry in University College; Dr. Miller, Professor of Chemistry in King's College; and Dr. Hoffman, Professor of the Agricultural College of Chemistry, have been appointed Commissioners to inquire into the several waters now in use in the metropolis, and the supplies proposed for the future. They are instructed to test their chemical qualities, to give their opinion on soft water generally, and whether its general use is likely to be attended with any great amount of inconvenience to the public. This appointment has been made to guide the Government respecting the Water Bills to be introduced during the present Session, the opinions already given by Messrs. Brande, Cooper, Taylor, Campbell, Playfair, Angus Smith, and Way being contradictory.

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LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening, February 8.—Royal Botanic Society. Quarter to Four o'Clock.

Medical Society of London. *Subject*:—Adjourned discussion of Mr. Greenhalgh's Paper, and Mr. Chippendale "On Gonorrhœa." Eight o'Clock.

Guy's Hospital Physical Society. Eight o'Clock.

Monday, February 10.—Geographical Society. Half-past Eight o'Clock.

Tuesday, February 11.—Royal Medical and Chirurgical Society. Half-past Eight o'Clock.

Zoological Society. Nine o'Clock.

Wednesday, February 12.—Microscopical Society. — *Anniversary*. Eight o'Clock.

Pharmaceutical Society. Nine o'Clock.

Ethnological Society. Eight o'Clock.

Thursday, February 13.—Royal Society. Half-past Eight o'Clock.

South London Medical Society. *Meeting of Council*. Half-past Seven o'Clock.

King's College Medical Society. *Subject*:—Mr. Partridge, "On Gout." Half-past Seven o'Clock.

Friday, February 14.—Royal Institution. *Subject*:—Professor E. Forbes, "On the Results of Recent Researches into the Marine Zoology of the British Seas." Nine o'Clock.

Saturday, February 15.—Medical Society of London. *Subject*:—Dr. Theophilus Thompson, "On Certain Points connected with the Treatment of Phthisis." Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, FEBRUARY 8.

CLINICAL MEDICINE.

We lately strongly urged the propriety and expediency of giving a far greater degree of prominence and importance to this essential department of medical instruction than that which at present exists. We admit the vast talents and the indefatigable industry which for the most part characterise the medical officers of our great Metropolitan Hospitals; but we cannot reflect upon the immense resources and the great wealth of these noble establishments, without lamenting that the invaluable stores of knowledge which they contain are not made more generally available in the education of the medical student. The fault, however, does not rest wholly with the medical officers, who are in many cases anxious to afford instruction to which the students but too often show themselves indifferent; while the latter appear, in too many instances, more ready to resort to the parrot-like knowledge which is communicated by a grinder, than to the sound practical information which is to be acquired at the bedside of the sick. For the students, also, a word of apology may perhaps be offered:—many of them commence their medical studies with a very inadequate stock of preliminary knowledge; and, amidst the multiplicity of subjects to which their attention is directed, they are too much inclined to devote themselves only to those points which they imagine will be brought before them at the various Examination Boards. They considering that an aptitude in answering a series of questions will compensate for the absence of that systematic and continuous course of mental discipline, which is absolutely necessary for the successful practice of the Medical Profession. The real blame, we apprehend, rests in the Examining Boards, who have hitherto shown themselves far too apathetic upon this important subject. One of them only, as we lately stated, appears to have shown any activity in directing the minds of the students to practical pursuits; but the Court of Examiners of the Apothecaries' Society, even if they should be successful in their present attempt, must exercise but a limited influence on medical education, because they have no control whatever over surgery, and little over midwifery.

Now, from this laxity in the Examining Boards arises a proportionate degree of inattention on the part of the students, who cannot be expected to pursue with great zeal those studies to which their future examiners appear to attach but little importance. We do not by any means agree with those who consider that the student ought to be left to pursue his studies in the manner which is most pleasing to himself; and we consider that a system of discipline at the medical schools, analogous to that which exists at our two great universities of Oxford and Cambridge, would be conducive, not only to the improvement of the student, but to the welfare and advantage of the public. But, even under present circumstances, we conceive it to be the duty of the seniors of the Profession to lay down rules of conduct and to prescribe courses of study for those who are commencing their career; and, although it cannot be expected that any plan can be devised which is wholly free from objections, yet we believe that the well disposed student will generally receive with gratitude any scheme of intellectual discipline which is devised for his advantage, and which is not dictated by self-interest on the part of his examiners or teachers.

Now, let us examine the regulations of the different Medical Examining Boards upon the subject of Clinical Lectures. The College of Physicians considers it essential, that students should diligently attend "for three entire years the physicians' practice of some General Hospital in Great Britain or Ireland, containing at least 100 beds, and having a regular establishment of physicians as well as surgeons;" but not one word is said about Clinical Lectures. The University of London requires from its candidates for the degree of Bachelor of Medicine, that they should attend "during twelve months the surgical practice of a recognised hospital or hospitals, and *lectures on Clinical Surgery*; and during twelve other months, the medical practice of a recognised hospital, *and lectures on Clinical Medicine*; and that subsequently to the completion of their attendance on surgical and medical hospital practice, they should attend to practical medicine in a recognised hospital, infirmary, or dispensary." Here the subject of Clinical Lectures is distinctly brought forward; but as no *number* of lectures is specified, and no *course* of lectures is required, it is clear that if two Clinical Lectures be given in twelve months, the letter of the regulation will be strictly fulfilled. The Royal College of Surgeons requires from candidates for the *fellowship* that they should attend "Lectures on the Theory and Practice of Medicine and on Clinical Medicine, and also on the Theory and Practice of Surgery and Clinical Surgery, during two seasons of six months each, at one or more recognized school or schools." This regulation refers only to the fellowship; as for the amphibious multitude who are to become *only* members, no Clinical Lectures either on Medicine or Surgery are considered at all necessary; and we accordingly find that the candidate for the membership is merely required to attend "one year on the Practice of Physic, and three years on the Practice of Surgery, at a recognized hospital or hospitals." The Society of Apothecaries requires that its candidates should attend, during their second Summer Session and their third Winter Session, Clinical Medicine and Morbid Anatomy, *in addition to the ordinary routine of hospital attendance*.

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We now proceed to inquire how these various regulations on the subject of Clinical Medicine and Surgery have been carried out at the schools. The students, attracted by the lustre of a great name, attend the visit of Dr. A. or Mr. B. in his course through the wards. This is called "walking the hospitals;" although, from the celerity with which the ceremony is sometimes conducted, it often resembles *running* more than the ordinary process of ambulatory locomotion. The Clinical Lectures are delivered *now and then*, perhaps once a week, perhaps once a month, being thrown in here and there, as a kind of propitiatory offering to the demands on the subject made by the professional journals. We must remark, in common justice, that many of our hospital physicians and surgeons have made most strenuous efforts to remedy this state of things, not only by the delivery of excellent Clinical Lectures, but also by establishing a complete and consecutive course of practical clinical instruction. But their efforts have by no means received from the students the encouragement and support which such exertions deserve; the excellent Clinical Lectures reported in the journals, drawn from the observation of Nature herself, are delivered to a few straggling and inattentive hearers; and the invitations to study pathology at the bedside and in the dead-house, have been too often neglected for the more easy, but far less satisfactory knowledge to be gained from books and grinders.

But, even admitting that the student is conscientiously devoting himself to his medical studies, it must be granted that he is so beset by lectures on a vast variety of subjects, that he is really unable to pay that attention to Clinical Medicine which its importance demands.

It is, we believe, from a feeling that the student's mind is too much directed towards theoretical pursuits, and too little to practical that the Court of Examiners of the Apothecaries' Society have added a note to their Regulations, at page 10, where they state, that "in place of the second course of lectures on the Theory and Practice of Medicine, the Court will admit a certificate of attendance on a course of *Clinical Lectures*, delivered in a recognised hospital, *by a distinct Professor, consisting of not less than twenty-five lectures.*" The number of lectures is specified, we presume, in order to insure a *bonâ fide* and systematic course of clinical teaching.

LORD JOHN RUSSELL AND THE UNION SURGEONS.

The Poor-law medical officers have recently had an interview, by Deputation, with Lord John Russell, and have thus been enabled to state their grievances to the most influential officer of the State. Any scheme for the modification of the existing system of medical relief to the poor must receive the sanction of the Premier before it can have the least chance of being placed upon the Statute-book; and it is, therefore, subject for gratulation that an opportunity should have been afforded to this deeply-injured body of public officers to awaken the attention of the Minister to the necessity of lightening their burdens. We sincerely hope that this interview may issue in some permanent good. We can scarcely believe that Lord John Russell would, on the eve of a fresh session of Parliament, receive a Deputation from these gentlemen, if he did not intend, sooner or later, to amend the system which has been to them for so many years a source of the most galling oppression and injustice. It is not becoming a great Minister to "deceive by false hopes." The consent to an interview, under the circumstances, is a virtual promise of redress; for, if his Lordship did not contemplate some melioration of the system, there was no necessity incumbent on him to step out from the ordinary routine of his special functions, to listen to grievances which he was predetermined to disregard. State policy does not require such a stroke as this of popular diplomacy.

The Deputation was courteously received, but no pledge was given of the adoption of any plan for the removal of the evils enumerated by the several speakers. We have no doubt, however, that the recital made a deep impression upon the mind of the Minister, which it will be the duty of the Convention to revive, from time to time, until the praiseworthy objects which they seek shall be realized. Owing to the late hour at which we received the report of the interview we are unable to give it insertion. It shall have our earliest attention.

ROYAL ORTHOPÆDIC HOSPITAL.

At the moment of going to press we have received a copy of a Circular calling a Special Court, to be held on Friday, the 14th inst., "to provide for the increase of the Medical Staff of the Hospital; to make a law, that the several Officers of the Hospital, whether present or future, be re-elected annually at a General Court, to be held in the month of February or March in every year; and that the offices to which no re-election be then made, be declared vacant."

We have not time further to allude to the above, than to express our unqualified disapprobation of the attempt that it seems to indicate, to get rid of Mr. Chance by a sort of side-wind.

We tell the Governors, that it is their duty—and that as much to the Profession as to the Institution—to declare whether or not Mr. Chance be qualified for the office he holds. If he be not, it behoves them to prove Mr. Chance's unfitness, and to dismiss him. But if, on the contrary, the charges, if such there be, to be brought against him are, as we believe them to be, vague and groundless, let the Governors honestly declare this to be the case, and insist that Mr. Chance shall perform the duties of the office to which he was appointed.

SMITHFIELD MARKET.

We lately expressed ourselves not well pleased with a project advanced by the Central Markets Association, for preserving the market on, or very near, its present site. Surrounded, however, as the whole question is with difficulties, it is worth serious reflection whether the above Association meets any of them; whether the great objections to a City market are in any measure got rid of; whether nuisances are lessened which cannot, it seems, be altogether removed; whether advantages are offered which could not otherwise be attained. Our attention has been particularly directed to the plans proposed, and the objects sought to be accomplished; and certainly, since we cannot hope for perfection, the Central Markets Association make out a strong case in their favour. They propose to remove the market from its present site, and establish another very near it, constructed on much improved principles, not interfering with passenger traffic, and, indeed, shut off from it; while, on the old site, baths and washhouses, model lodging-houses, and an ornamental fountain are to be erected. It deserves the particular attention of sanitary reformers, that the site chosen for the new market is the most foul locality to be found in the whole metropolis; and if the disagreeables of a cattle market can be materially lessened, at the same time that

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still worse evils are removed, we certainly incline to the opinion that we might go further and fare worse than under the proposals of the Central Markets Association.

We may state, that the plot of ground on which it is projected to lay out a new market is bounded by Smithfield Bars on the east, Victoria-street on the west, Cow Cross-street on the north, and Snow Hill on the south; and this area includes among its streets, courts, alleys, and holes,—Sharpe's-alley, Greenhill's Rents, Red Lion-alley, Durham-yard, Boar's Head-court, and other places which are not only the localities of fever, and the very reservoirs of loathsomeness, but are also known as the refuge of the burglar and more petty thief, and the disposal-place of the earnings of crime. It is, therefore, proposed to demolish the whole of these nests, and to convert their site into an *open* market-place, which will form, when constructed, probably the *largest free space in the metropolis*. and that occupied only on two nights of the week. But to give our readers some more tangible data upon which to form an estimate of the improvements contemplated, we may state that the area is infested at the present moment by no less than *eighty-nine of the most abominable health and soul-destroying nuisances that could be congregated together on such a space!* For instance,—it is proposed to get rid of 2 horse-slaughterers, 2 offensive slaughterers, 8 common slaughterers, 1 neats-foot oil factory, 2 cat and rabbit fur dressers, 3 cat-gut factories, 8 bladder-blowers, 13 general nuisances, such as dust-contractors' heaps, bone dealers, and low brothels, 20 receiving-shops for stolen goods, and about 32 slaughter-houses. We mention these as palpable, and unmistakeable nuisances; but with the evidence which we have before us, and from our own observation, we should not hesitate in condemning at least three-fourths of the ground in question as occupied either by trades and callings detrimental to the health of a people, or by conveniences and appliances destructive to the morals, and positively dangerous to the property of the Metropolis.

This state of things, then, the Central Markets Association propose to abolish "in perpetuity." And it becomes a question whether greater improvements are likely to take place; and how long it would take to effect them. We greatly fear, from our experience of the past, that, in the absence of this proposal the City would suffer this plague-spot in its very midst for at least another half century. Besides which, supposing the plan adopted, it is no stretch of imagination to conceive, that a spirit of emulation would be excited by such a manifest change for the better, and the public authorities induced to proceed onward in the improvement of the hygienic conditions of London.

It is also a point of consideration, in reference to public health, that the condition of the cattle when brought to, and taken from the market will be considerably improved by the proposed plan. It was stated most distinctly to the Commission, that much of the meat coming from Smithfield was positively unfit for human food, and that from coercion and other cruelties, which, from insufficient space and accommodation, cannot now be avoided. The Central Markets Association meet this most serious objection by giving a much larger area,—thus getting ample conveniences for the cattle, providing lairs for temporary accommodation, erecting water troughs, &c. Add to this, the egress of cattle from the market is to be restricted to such hours as shall be consistent with the convenience of trade and the requirements of public traffic,—in fact, to the night, the market being shut and cleansed by 9 o'clock in the morning, while all general traffic is to be excluded from the market by its being enclosed.

With the business details, as between the grazier, the butcher, and the public, we have nothing to do; our province is especially with the hygienic condition of our fellow-creatures.

It occurred to us at first, that there was some vagueness in the advertisement of the Association, as to the outlet for the sewage matter of the New Market. It was stated that it was not to go into the Thames; but the precise locality was not indicated. Within these few days, however, this question has been set at rest, and now forms a strong ground of recommendation to this new proposal. It appears that by the plan just proposed by Mr. Foster to the Commissioners of Sewers, and adopted by that body for the drainage of the northern part of the Metropolis, the main sewer from the proposed new market would terminate in the Essex marshes without in any way coming in contact with house drains.

In justice to the promoters of this scheme, we have fairly stated the advantages claimed for it; and, although we remain of opinion that the entire removal of the market would be the more desirable procedure, yet, in the absence of any distinct proposal so to deal with it, we are strongly inclined to accept that of the Association, as *a very much diminished evil*. Should other plans be proposed to Parliament, they will receive our anxious consideration.

REVIEW.

On the State of the Blood and the Blood-Vessels in Inflammation, ascertained by Experiments, Injections, and Observations by the Microscope. The "Astley Cooper" Prize Essay for 1850. By T. WHARTON JONES, F.R.S. Guy's Hospital Reports, 1850.

The triennial prize of 300 guineas, bequeathed by Sir Astley Cooper, was last year awarded to Mr. Wharton Jones. The subject chosen for the essay was "On the state of the Blood and the Blood-Vessels in Inflammation." Our readers may remember the first of the Astley Cooper prizes was obtained by Mr. Simon, for his essay on the Thyroid Gland. The Anatomical Structure and Diseases of the Supra-Renal Capsules, was the subject of the second prize essay. As by the tenor of the will, the money was obliged to be given to the author of the best essay sent in, it is reported that the trustees were unwillingly compelled to bestow it on a gentleman whose paper was considered to be very unworthy of the reward.

The subject for the Prize Essay for 1850 was most judiciously chosen, and richly has Mr. Wharton Jones deserved the prize he has gained. To our mind, the Astley Cooper Prize Essay for 1850, is a model of what such an essay ought to be. Mr. Wharton Jones had previously contributed largely to our knowledge on the subject of inflammation by his able reports on that process published in the 17th and 18th Vols. of the *British and Foreign Review*. His ability and large experience as an ophthalmic surgeon, have enabled him to enrich his essay with apt illustrations, drawn from inflammation of that organ, in which, in the human subject, the phenomena of that process are best studied.

The most effectual way of giving our readers a correct idea of this essay, will be to make, not a critical, but an analytical review of its contents. We only regret we cannot transfer to our pages the many wood-cuts and carefully-executed coloured lithographs with which it is illustrated.

In the Introduction Mr. Wharton Jones states, that he has in the first place attempted to determine, by observation and experiments on the living frog—

"1st. What the action of the vessels is, and what the manifestations of that action are;

"2nd. What the effect of the action of the vessels is on the flow of blood;"

And "then the state of the blood and of the blood-vessels in inflammation as it occurs in that animal." Subsequently the knowledge thus obtained, supported by observations on

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the human body, is applied to the elucidation of the state of the blood and of the blood-vessels in an inflamed part in man.

The First Chapter treats of the blood-vessels of the web of the frog in the healthy state. Speaking of the distribution of the blood-vessels, Mr. Wharton Jones remarks, that, "although the capillaries all communicate together, a given part of the capillary network receives its blood especially from the branches of a particular artery, and pours its blood especially into particular venous radicles."

Structure and Endowment of Arteries.—The walls of the arteries are formed of three coats, the innermost continuous throughout the vascular system; the outermost cellular; the middle muscular. The alterations in the diameter of the arteries are effected by contraction or relaxation of the muscular coat alone.

1. Sulphate of atropia being applied, constriction slowly follows, the artery slowly regaining its normal width.

2. Moderate cold, mechanical and galvanic irritation cause rapid constriction, soon succeeded by the normal width.

3. Solution of sulphate of copper (gr. xvi. to ℥i.) with wine of opium (i3) dropped on the web, generally causes primary dilatation of the arteries.

4. Concentrated solution of sulphate of copper causes sudden dilatation, which slowly yields to permanent constriction.

Structure and Endowments of Capillaries.—A single coat constitutes the wall of the capillaries. "I have not," Mr. Wharton Jones observes, "been able to perceive, that when capillaries are cut across, their mouths become constricted; much less their canal as a whole.

Structure and Endowment of Veins.—The smaller veins have only one coat, like the capillaries; the larger veins two coats. Mr. Jones thinks that it must be admitted that the outer coat of the larger veins possesses a very slight contractile power. With reference to the nerves of the blood-vessels, arteries alone are constantly accompanied by nerves, and arteries alone have well-marked contractile walls. The ischiatic nerve being divided, Mr. Jones found that the arteries of the web retained their contractility, though they became more dilated than usual.

After section of a nerve accompanying an artery, constriction of the artery took place, but soon ceased. The supervening dilatation was greater below than above the injury.

Chapter II. treats *Of the Circulation of the Blood in the Web of the Frog in the Healthy State.*

Section 1.—*Blood of the Frog.*—The addition of white of egg to a drop of freshly-drawn frog's blood causes the red corpuscles to become more closely aggregated than in the normal liquor sanguinis. This greater agglomeration of the red corpuscles Mr. Jones attributes to the greater viscidity of the plasma thus produced.

Section 2.—*Phenomena of the Flow of the Blood in the Vessels of the Web.*

(a) *In the Vessels Generally.*—The red corpuscles move rapidly along the middle of the stream; the colourless corpuscles roll sluggishly along, or actually stagnate near the walls of the vessels. The latter phenomena are said, by Mr. Jones, to be due to a strong tendency on the part of the colourless corpuscles to adhere to the walls. The force of the stream is in general sufficient to counteract this tendency; but when the flow of blood is retarded then accumulation of large numbers of colourless corpuscles takes place.

The tendency of the red corpuscles to adhere to each other (they have no tendency in the natural state to adhere to the walls of the vessels) is overcome by the normal force with which the blood is propelled. If any impediment occurs to the free passage of the blood, then the red corpuscles "become applied to each other by their flat surfaces." There is no tendency to adhesion between the red and colourless corpuscles, either within or without the body.

(b) *In the Arteries.*—At each pulsation the artery is seen under the microscope to become slightly dilated. The pulsations of an artery are observed to be less and less evident, down to the capillaries. When an artery has been cut across, pulsation continues above, but ceases below the wound.

In cases in which arteries were seen dilated at one spot, while elsewhere they were of usual width, Mr. Jones states, that retardation of the stream of blood in passing into the wide channel was in his observations well marked, the stream becoming again accelerated on entering the narrow channel.

Speaking of the flow of blood through arteries in a state of general dilatation, our author affirms, that it—*i. e.*, the flow of blood—is more rapid in them than in arteries of the usual width; "the resistance to its motion from friction being diminished in the dilated vessels."

(c) *In the capillaries*, the flow of blood is continuous, and, in general, slow enough to allow of the individual corpuscles being distinctly seen. "When any impediment," to use Mr. Jones's own words, "to the flow of blood from the capillaries into the veins occurs, the red corpuscles may be seen to accumulate, and to become applied to each other by their flat surfaces, with their diameters more or less nearly at right angles to the axis of the vessel."

(d) "*In the veins*, the flow of blood is continuous, more rapid than in the capillaries, but less rapid than in the arteries."

Section III.—Influence of the Arteries on the Capillary Circulation.—The rapidity of the flow of blood in capillaries is accelerated or retarded by acceleration or retardation of the flow in the arteries; the latter being determined by variations in the width of the arteries themselves.

Four degrees of width may be presented by those vessels, with corresponding degrees of rapidity of the flow of blood:—

1st. Artery so much constricted, that there is no room for the passage of the blood corpuscles.

2nd. Artery just wide enough to permit the blood to flow, though with difficulty.

3rd. Artery nearly normal in width, with the blood flowing freely.

4th. Artery much dilated, and the flow of blood stronger and more rapid than in the third degree.

In the first degree of constriction, *vis à tergo* is no longer transmitted, and the direct flow of blood is arrested in the still pervious terminal part, and in the capillaries to which it leads; the constriction continuing, the blood regurgitates from the anastomosing arteries and from the veins, through the capillaries, into the terminal part of the affected artery. "The red corpuscles of the regurgitating and slowly-moving blood aggregate together, and in some places become stagnant." If the artery resume its normal width, the flow of blood resumes its natural onward course, and the stagnation, if it exists, is dissipated.

When the width of an artery is in the second degree, the stream may continue direct, but the circulation in the capillaries supplied by that artery is sluggish; in some, perhaps, stagnant.

Chapter III.—*Of the State of the Blood and the Blood-Vessels in Inflammation of the Web of the Frog, from an incised wound.*

In both *congestion* and *stagnation*, Mr. Jones says, "it is to be understood that there is an *unusual accumulation of red corpuscles in the blood* of the affected vessels." So long as the blood flows, however tardily, we have *congestion*. When the blood ceases to flow we have *stagnation*. In order to ascertain how the congestion and stagnation of blood, which are occasioned by an incised wound, are brought about, Mr. Jones instituted experiments and observations to determine:—

1st. The *Effect of Section of an Artery of the Web of the Frog on the Flow of Blood in the Part.*

When an artery is cut across, its calibre is immediately obliterated by constriction, both above and below the point of section; and, as a direct consequence, there is an exsanguine state of the part to which the artery leads. In a minute or so, dilatation of the artery, both above and below the wound, ensues. In the upper part of the artery the flow of blood is re-established, as far down as the first considerable branch above the place of section. Into the part of the artery below the wound, blood enters only in a retrograde direction, and that very slowly by regurgitation from the capillaries and veins, and in some cases from an anastomosing artery. This tardy flow of the blood is congestion; eventually stagnation takes place in the greater number of capillaries and venous radicles. "The effect of section of an artery of the web of the frog on the flow of blood in the part to which the artery leads, is thus congestion and stagnation; the manifestation of which to the naked eye, is a reddish spot." If the artery be divided at some distance from the capillaries, then the congestion and stagnation are at some distance from the

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wound. The retardation and ultimate cessation of the current is due to the removal of *vis-à-tergo*.

2nd. The Effect of Section of a Vein or Veins of the Web of the Frog on the Flow of Blood in the Part.—After the section of a vein, there is no further flow of blood in the upper segment from the wound up to the first considerable branch which enters the vessel; below the section the flow of blood becomes retrograde to another vein, if there be an anastomosis with such. When the latter was also cut, the vein received blood in the natural direction by one set of radicles, whilst, by another set, it sent the blood away in a retrograde direction to capillaries, from which the blood passed into the radicles of another vein. Having thus to pass through two sets of capillaries, congestion took place in the capillaries and venous radicles—stagnation in a few only. The less disposition to congestion in the capillaries after division of a vein than an artery is due to *vis à tergo* being cut off much more completely in the latter than in the former case.

4th. The Effect of Section of the Ischiatic Nerve on the Flow of Blood in the Web.—After section of this nerve, the arteries are rather dilated, and, as a consequence, the flow of blood is, on the whole, more rapid, and there is less disposition than in the natural state to congestion and stagnation from the action of external agents.

6th. The effect of section of arteries, veins, capillaries, and nerves, altogether, on the flow of blood in the part, is a combination of the effects above described.

Exudation in the case of inflammation from wound of the web, is evidenced by opacity of the affected part, by thickening of the margins of the wound, and in the process of granulation.

Chapter IV.—*Of the State of the Blood and the Blood-Vessels in Inflammation, from the Application of a Strong Solution of Common Salt to the Web.*

Section 1.—*Description of the Mode in which Congestion and Stagnation take place.*—"A solution of common salt applied to the web causes dilatation of the arteries and acceleration of the flow of blood in them, and of course, in the capillaries and veins also. If the solution of salt, however, be strong, the acceleration of the circulation soon gives place to retardation from congestion and commencing stagnation of the blood corpuscles. Eventually the circulation is altogether arrested in the part, the blood having become stagnant in a greater or less number of vessels, according to the intensity and extent of the action of the salt.

"Stagnation commences in the capillaries, and extends from them to the veins on the one hand, and to the arteries on the other. The mode in which it is seen to take place is by red corpuscles, more collapsed and darker-looking than natural, first adhering to the walls of the vessels, and then other red corpuscles adhering to them. The first adhesion of red corpuscles to the wall of a vessel usually takes place at a bifurcation."

The portion of artery between the capillaries in which stagnation has taken place, and the first large branch above, contains but few blood corpuscles, and these are seen collected to one side of the vessel, and oscillating up and down.

"Not many colourless corpuscles are seen in the vessels in which the blood is stagnant; but they are seen in considerable numbers in those veins in the neighbourhood in which the flow of blood is still free, though, perhaps, retarded." The appearance of an uniform red mass within the vessels is produced by the close agglomeration of the red corpuscles.

Section II.—Explanation of the Mode in which Congestion and Stagnation take place.—Mr. Jones having ably and effectually disproved the notion that the dilatation of the arteries, and the coincident change in the rapidity of the flow of blood through them, have any effect in inducing stagnation in the capillaries, advances the opinion, "that the adhesion of the red corpuscles to the walls of the vessels, and to each other, on which the stagnation depends, can be attributed only to a change in the state of the blood itself, produced by the action of the salt,—a change consisting in inspissation of the plasma, as regards its albuminous and fibrinous constituents." The salt, Mr. Jones further thinks, acts principally by withdrawing water from the blood by endosmosis, and so producing inspissation of the plasma.

In the 5th Chapter, the *State of the Blood and Blood-Vessels of a Part of the Web of a Frog, cauterized with Bluestone*, is briefly considered.

Chapter VI.—*Of the State of the Blood and the Blood-Vessels during the Healing Process, as observed in the Web of the Frog.*

Section 1.—*Of the State of the Blood and the Blood-Vessels during the Healing of a Wound of the Web.*

(a) *When an artery is cut across*, in a day or two the circulation is re-established. In two cases observed by Mr. Jones, the cut ends of the artery became re-united, and the current re-established. Ordinarily, the circulation is restored by an anastomosing branch between a neighbouring artery and the lower portion of the divided artery.

(b) *When capillaries are cut across*, they shrink and disappear; those around the margin of the wound enlarge.

(c) *When a vein only is cut across*, usually the capillary anastomosis between the first considerable radicle above and that below the wound becomes enlarged.

(d) *When Arteries, Capillaries, and Veins are Cut across.*—At the extreme margin of the wound, the process of granulation, including the development of new capillaries, which constitute the terminal loops of the marginal network, goes on. Subsequently, some of the capillaries shrink and disappear, the circulation becoming freer in the remainder. Most of the red corpuscles in these capillaries are distended, and of a rounded form.

Section 2.—State of the Blood and the Blood-Vessels during the Process of Resolution of Inflammation of the Frog's Web excited by the application of a strong solution of Salt.—The agglomerated mass of red corpuscles oscillates, yielding at each stroke of the heart, and again recoiling. The mass is pushed by *vis à tergo* onward, till it projects slightly into a vessel in which the flow of blood is free; here the stream detaches and carries away the corpuscles composing the protruding part. In this way, Mr. Jones observes, one vessel after another is cleared until the circulation is fully re-established.

This process may be promoted by the application of agents possessing the property of causing dilatation of the arteries and acceleration of the flow of blood, *even a solution of salt*.

"The promotion of the process by the applications referred to, is an interesting illustration of the *modus operandi* of stimulating collyria, applied to the eye, for the cure of inflammation of the conjunctiva."

Section 4.—State of the Blood and the Blood-Vessels when Resolution of the Inflammation of the Frog's Web, excited by the application of a strong solution of Salt, does not take place, but when a part of the Web mortifies.—In the mortified part there is no appearance of blood and blood-vessels, while the blood-vessels in the web generally are in the same state as when a piece is cut away, instead of being destroyed by mortification.

After the separation of the slough, during the process of granulation and cicatrization, the blood in the vessels at the extreme edge of the capillary network is found to continue stagnant.

Chapter VII. *An Attempt to apply what we have learned from Observations and Experiments on the Frog, respecting the state of the Blood and the Blood-Vessels in an inflamed part, to the elucidation of the state of the Blood and the Blood-Vessels in an inflamed part in Man.*

Section 1. *Of the state of the Blood and the Blood-Vessels in Inflammation in Man.*—Direct observation leads to the conclusion, that the distribution of the smallest arteries, of the capillaries, and of the smallest veins in man, is essentially similar to their distribution in the web of the frog; that these same vessels are identical in structure and function in the two; and, moreover, that there is also a close resemblance in the comportment of the blood corpuscles to each other, and to the vessels in man and the frog.

"The vascular injection of the inflamed conjunctiva," says Mr. Jones, "as observed with the naked eye, or by means of a magnifying glass, presents the same characters as the vascular injection in inflammation of the web of the frog as observed by the same means. Seeing this, and also that the plan of distribution of the small vessels is similar, and knowing that the red corpuscles of the blood of man aggregate together much more readily than those of the frog, Mr. Jones argues that we may fairly conclude, that in the vessels of an inflamed part in man, the red corpuscles of the blood are accumulated and aggregated together in a similar manner, though to a greater degree, to what we can directly observe in the frog. With reference to inflammatory injection in man, the result of the operation of cold, Mr. Jones observes, that the direct action of cold produces con-

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striction of the small arteries of a part, and as a consequence congestion, or a sluggish flow of blood in the capillaries and veins, with here and there stagnation. "The bluish redness of the affected part, indicates great accumulation of blood in the venous radicles," due to diminution of *vis à tergo*.

Dilatation of the small arteries cannot, under any circumstances, be considered the first step to inflammatory congestion. The effect of the dilatation would only be acceleration of the flow of blood, and therefore dilatation of the small arteries must, Mr. Jones goes on to say, be viewed as the first step to re-action and resolution. As to the mode in which cold applied to one part of the body excites inflammation of a distant part, our author observes that the organ so affected is *the weak organ* of the body; that, consequently, its small arteries are more irritable and susceptible to impressions through the nervous system; being constricted, the flow of blood in the capillaries and venous radicles to which they lead, becomes sluggish, and there is accumulation in them of red corpuscles.

Constriction of the small arteries exists only at the commencement of the inflammatory process. When relaxation and dilatation of the arteries take place, the acceleration of the flow of blood in them may overcome the stagnation in the capillaries and venous radicles; but this failing to be accomplished, the greater quantity of blood poured into the vessels of the part must aggravate the inflammation.

Briefly, in the vessels of an inflamed part in the frog, and highly probably in man, the quantity of red corpuscles of the blood is augmented and that of the plasma is diminished, at the same time that the latter is inspissated; the increase in the quantity of red corpuscles in the vessels of an inflamed part, and the diminution in the quantity of plasma, are owing to the red corpuscles being retained in the vessels while the plasma passes on. The inspissation of the plasma is owing to the abstraction of water from the blood of the part, and may be merely local.

The cause of the increased accumulation of the white corpuscles in the vessels of an inflamed part appears to be simply due, Mr. Jones thinks, to the fact, that they are in inflammation more disposed to adhere to the walls of the vessels, owing to the retardation in that process of the flow of blood, and the inspissation of the plasma.

Section 2.—*Exudation in Inflammation of a Part of the Human Body.*—As, in the frog, exudation follows, and does not precede congestion and stagnation; after exudation, the red corpuscles become more closely aggregated, and the re-establishment of the circulation, therefore, does not take place so readily as before.

Section 3.—*State of the Blood and the Blood-Vessels during the Healing Process in Man.*—The edges of a wound, even after it is healed, continue injected for some time. The cause of this appears to be, that the anastomosing vessels are not yet large enough to compensate for loss of those divided in the injury. The redness may be in part due to a greater quantity of blood than usual arriving at the part in consequence of dilatation of the arteries. "These two conditions," adds Mr. Jones, "appear to me, most probably, to be those in which the blood and blood-vessels are in chronic inflammation."

Chapter VIII.—*Of the State of the Blood of the Body generally in Inflammation.*—In this chapter, the author's remarks are chiefly founded on, or borrowed with acknowledgment, from the chemical researches of Lecanu, Andral and Gavarret, Simon, Popp, Becquerel and Rodier, and Zimmerman. With reference to the microscopical characters of the blood of the body generally, in inflammation of any organ, Mr. Jones appears to admit that the number of the white corpuscles is increased.

Chapter IX.—*Of the Relation between the State of the Blood generally in Inflammation, and the Inflammation itself.*—Inflammation, it has been proved, may exist without increase in the quantity of fibrine in the blood; it may also exist without fever; both often supervene on inflammation. The sudden increase in the quantity of the fibrine, Mr. Jones regards as the cause of the inflammatory fever; when the increase occurs gradually, as in pregnancy, &c., no fever is present. Mr. Jones concludes, that, "although inflammation may be independent of an increase in the quantity of the fibrine, still, when this has taken place, the spread and intensity of the inflammation may be promoted by it.

Our high appreciation of Mr. Jones's labours is shown by the fulness of our analysis of his Essay. Apart, however, from its intrinsic merits, we regard this contribution to our knowledge of inflammation as possessing, at the present time, a special value, as an antidote to the vague and profitless views of those who would have pathologists regard inflammation as a mere modification of nutrition, instead of, as it really is, a process *sui generis*. The essential phenomena of inflammation are *bonâ fide* anormal, *i.e.* pathological, as distinguished from physiological, and as such must they be studied.

FOREIGN CORRESPONDENCE.

FRANCE.

DEATH OF M. ROYER COLLARD.

I have to announce to you with regret the death of M. Royer Collard, Professor of Hygiene Publique at the Faculty of Medicine. He was the son of one of our most distinguished logists, and was himself a young man of the very highest promise, though his position in life tended to render him less industrious and energetic than many of his *confrères*.

The other vacancy in the faculty, created by the death of Marjolin, will be filled up by *concours*. The chair of surgery will be warmly disputed, for no less than fifteen candidates are inscribed on the list. The principal are — MM. Bouisson (from Montpellier), Maisonneuve, Nélaton, Robert, Marchal (de Calvi), Chassaignac, and Sanson. M. Bouisson was at one time Professor at the Faculty of Strasbourg. He then presented himself as candidate for the chair of Clinical Surgery in the Faculty of Montpellier, and was appointed after a brilliant *concours*. His friends speak confidently of success at Paris; and it must confessed that five years' experience as Professor at Montpellier must give him many advantages. M. Robert, of the Hôtel-Dieu, is, however, no contemptible competitor, and will dispute the prize in a manner worthy of the metropolitan school.

The 10th of December, the anniversary of the election of M. Louis Napoleon Bonaparte, of pious and immortal memory, has been signalised by a curious phenomenon—a regular shower of crosses. No less than 600 have fallen on the heads of the public. But if I allude to the occurrence, it is merely to say, that fortune has not been altogether blind, for the Cross of Officer of the Legion of Honour alighted on M. Civiale, than whom a more deserving recipient could not be found. When decorations are as plenty as blackberries, it were hard if we did not come in for a crumb or two of the treat.

The Annual Meeting of the Academy of Sciences, devoted to the distribution of the numerous prizes confided to that learned body, took place yesterday. M. Arago was to have been the principal performer, but I regret to say that his health still continues delicate. His discourse on Poisson was, therefore, read by another academician. The works, discoveries, and improvements relative to medicine or surgery which obtained rewards, do not present anything of a high order. The past year has not been prolific. Indeed, we may say, that medicine has become stationary among the sciences, if not declining. In experimental physiology, no work of any kind has been presented for 1849 or 1850. For the grand prize of medicine and surgery, 21 different works were sent in, but only four were deemed worthy of recompense. M. Jobert's treatise on Vesico-Vaginal Fistula obtained the first prize of 2,500 francs. Next came M. Guillon, who was awarded 1,000 francs for his new lithotritical "pulverisator." Finally, the works of M. Martin, on the Lower Extremities, and of M. Morel, on Hernia of the Lungs, were considered worthy of 1,000 francs each. These prizes were for 1849. For the current year we have a greater variety of matter, though no great improvement in quality. Seven works obtained prizes. They are as follow:—Those of M. Herpin, on Epilepsy; M. Delasiave, on Epilepsy; M. Mercier, on the Valves at the Neck of the Bladder; M. Vrolik, on Malformations; M. Stahl, on Endemic Idiocy; M. Hurteaux, on the Effects of Tobacco as manifested in the National Manufactory at Paris; M. Carriere, on the Climate of Italy.

This, after all, is but a meagre bill of fare; and when we remember that the *concours* is open to the productions of all nations,—a universal exhibition of the works of intelligence,—we are bound to confess that it was little worthy of the Institution. Our age, I fear, is becoming every day more and more material. In scientific matters, people only look to the *quantum valeat*, and all the intelligence of the day is directed to subjects capable of returning a *quid pro quo*. And, apropos of this, I may mention, that M. Auguste Mercier, one of the afore-cited laureates, has

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opened a very elegant establishment at Ivry, close to Paris, for the reception of persons labouring under diseases of the genito-urinary organs. Nothing can exceed the beauty of the grounds, the magnificence of the interior, or the means of accommodation profusely afforded; while the charges for surgical treatment, board, lodging, and every comfort one could desire or obtain at home, vary from 6*l.* to 12*l.* a month only. It is difficult to conceive how the thing can be done for the money. Each patient has a suite of beautifully furnished apartments, and the lodging alone is worth more than the sum charged for a *cure*. The French certainly excel us in taste and love of show. Their private lunatic asylums, for example, are palaces compared to the beggarly, naked cells in which we confine our insane patients.

Of novelties and improvements connected with medical science we have had a scarcity for some time past, in public as well as at the Institut. M. Ripault, who exercises the delicate office of examining the "filles perdues" at Dijon, has made some interesting observations relative to the condition of the os uteri during the period of menstruation. The only constant change, however, which he noticed was an enlargement of one or two veins on the lips of the os tincæ. This enlargement takes place on the day preceding the appearance of the menses, or on the day after, and does not disappear until a couple of days after their cessation.

M. Delioux, Professor at the Naval College at Rochefort, has been making several experiments with the salts of silver. He is inclined to think that the best way of administering the nitrate of silver is to combine it with albumen and an alkaline chloride. Milk seems to be the best antidote in cases of poisoning with the nitrate of silver. The dark tint occasionally produced by a long use of preparations of silver may, according to M. Delioux, be best avoided by having recourse to the iodurat of silver. Mr. Lane, if I remember right, proposed the oxide of silver with the same object.

TYPHOID FEVER.

The Committee of Epidemics appointed by the Academy of Medicine has not furnished this year anything worthy of note relative to typhoid fever. On the other hand, M. Piedvache, physician to the Dinan Hospital, has published an excellent memoir on the infectious nature of the disease. Some of the principal facts may be worthy of record.

During a practice of nine years the author took notes of 452 cases of typhoid fever. Distinguishing them in relation to the the point of contagion, he divides them into four classes. The first class includes cases in which the disease passed successively from one individual to one or all the members of the family. This occurred in four-fifths of the cases.

In the second class we find cases where an individual, transported to a district free from the disease, communicates it to his family.

In the third class, which comprises eight cases, the patient communicates the disease to his immediate attendants, although no member of the family, or other inhabitant of the house, is attacked.

Finally, in the fourth class, we have examples of transmission of the disease from house to house, through the medium of nurse-tenders.

The author, therefore, is a contagionist. He even goes so far as to attribute 411 out of the 452 cases noted to contagion, either as cause or effect; that is to say, either as having produced a case of fever or as having arisen from contagion.

The experience of physicians who practice in large towns is diametrically opposed to the conclusions of M. Piedvache. He admits the rarity of infection in cities, and endeavours to explain its frequency in the country from the neglect of all hygienic measures on the part of the peasantry.

In Paris it is certain, that the propagation of typhoid fever can seldom be traced to contagion. We have had it very prevalent during the last three months, and many cases of true relapse—four occurred in the service of M. Cazalis—have been noticed. In one remarkable case the patient had two true relapses, with stupor, gurgling, and an eruption of rose spots each time. The relapsing fever of Dr. Jenner has also been very prevalent at the Enfans Malades, but it is there regarded as a species of intermittent.

GENERAL CORRESPONDENCE.

THE SESQUI-OXIDE OF IRON.

[To the Editor of the Medical Times.]

Sir,—In your Journal for December 28, 1850, is a short note by Mr. T. M. Ward, on the variations in the sesquioxide of iron employed in medicine. The variations in colour adverted to by your correspondent are also, in all probability, accompanied by variation in therapeutic power, which I believe must be attributed more to the state of aggregation of the molecules of the substance than to any other cause. The colour of the sesquioxide of iron differs considerably, according to the process by which it is obtained. The red variety resembles in colour well levigated binoxide of mercury; it is prepared by the cheapest process—that of exposing protosulphate of iron to a strong red heat—when the protoxide of iron is converted into sesquioxide at the expense of the sulphuric acid, which is reduced, in part, to sulphurous acid, while the remainder of the sulphuric acid passes off in vapour, as in the Nordhausen process for manufacturing sulphuric acid. The residue is the sesquioxide of iron of the shops, which, having been exposed to intense heat, is so changed as to be dissolved with difficulty in strong acids, and is incapable of perfectly saturating the hydrochloric acid employed in the preparation of the tinctura ferri sesquichloridi of the pharmacopœia. It cannot then excite surprise that this preparation should dissolve only in minute proportions in the acid of the gastric juice, and that ounces, or even pounds of it, may be given with no other inconvenience than that of causing constipation. When the oxide is prepared by heating the nitrate of iron to low redness, and, continuing the application of heat until the whole of the nitric acid is expelled, the remaining sesquioxide, instead of the ordinary orange-red colour, is of a deep red tint. The brown oxide, which Dr. Golding Bird extols, is the hydrate of the oxide prepared by precipitation from a persalt of iron, washing and drying by a gentle heat. This, if well prepared, should readily and wholly dissolve in the stronger acids, and will be easily acted on and brought into solution by the acids of the gastric juice,—a circumstance which will sufficiently account for its superior efficacy, since more of the iron will be placed in a condition for absorption without appealing to the exploded theory of the activity of the proto and the inefficacy of the persalts of iron. I cannot conceive how that fallacious opinion, that the persalts of iron are inefficacious, can have crept into the minds of medical practitioners and the elementary works on materia medica, except from the circumstance of the comparative inefficacy of the sesquioxide itself, for which I have given a sufficient reason. Were the persalts of iron powerless, no one should prescribe the tinctura ferri sesquioxidi; the ferri potassio-tartras, the ferri ammonio-tartras, or that elegant preparation ferri ammonio-citras, all of which, when well made, do not contain a particle of protoxide or protosalt of iron! Indeed, so far as my experience goes, I prefer the use of the persalts rather than the protosalts of iron, as the former are milder in their character, and appear to me to agree much better than the latter.

While I am on this subject I may mention, that I have long employed a simple solution of the sesquichloride in preference to the tincture of that salt in all cases, except where a diuretic effect was desired. In the preparation of the tincture, as I have noticed above, the hydrochloric acid is not saturated, and the free portion of the acid re-acts on the spirits, producing, I am inclined to believe, some chloric ether, to which the diuretic action of the tincture may be attributed.—I am, &c., PH. B. AYRES, M.D., Lond.

Wandsworth-road.

THE HOMŒOPATHS.

[To the Editor of the Medical Times.]

Sir,—I innocently supposed that I had given plain and direct answers to Dr. Wilks' queries, and, I doubt not, most of your readers thought the same. Dr. Wilks is, however, highly dissatisfied, accuses me of "circular logic," "sophistry," "verbal jugglery," and what not, and metaphorically and literally puts his finger to his nose. Dr. Wilks seems to think that the whole truth or falsity of the homœopathic law hangs upon whether a healthy nose rubbed with snow will thereby be made cold or no. Dr. Wilks may put this to the test the first fall of snow that occurs, and if his nose be not, like Bardolph's, "an everlasting bonfire," I expect he will not have rubbed it long with snow before he finds it sufficiently cold. That it is not the friction, but really the snow, that cures the frost-bitten nose, Dr. Wilks would find, if he attempted to rub it with a horse-hair glove; he would soon, I imagine, rub that ornamental feature off the face; moreover, a popular and successful mode of treating frost-bitten limbs in Germany, is the application to them of frozen sour-crout without any friction. Again, in the analogous instance of burns, heat alone is found to be advantageously employed, as is familiar to all in the popular method of treating a burned finger by holding it to the fire, in order, as it is said, "to draw out the heat."

But, be all this as it may, the truth of the homœopathic law, so

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far as it relates to the cure of diseases by means of medicines, would not be affected in the slightest degree though Dr. Wilks could prove to demonstration that he could rub his nose up to the boiling-point with snow, or chill his finger down to zero by being it near the fire; for, cold and heat not being medicinal agents, properly so-called, cures by their means cannot be adduced as examples of medicinal homœopathy, but only as analogous occurrences in another sphere, corroborative of, but not proving, the truth of our law. This was long ago pointed out by Hahnemann in the Introduction to the "Organon," to which I must refer Dr. Wilks for further information.

"I find," says Dr. Wilks, "I have needlessly troubled myself in investigating the inconsistencies of the law, since many of its followers have discovered these for themselves, and have renounced the doctrine." Several of Hahnemann's doctrines have doubtless been controverted by some of his disciples, and his theory of the mode of action of remedies, to which he himself attached no importance at all, has been very generally rejected; but the truth of the *law, similia similibus curantur*, our therapeutic formula, is in no way affected thereby; and I am not aware of any one of Hahnemann's followers having renounced this. Dr. Wilks must have known, if he had read it, that the paper he alludes to in the *British Journal of Homœopathy* for January, related merely to a theory of the mode of action of our remedies, and he must have also seen, that the Editors dissented from the writer's views, though he has not the candour to say so.

Whatever Dr. Holland (whose opinions on homœopathy are not of the slightest value) may say, there are very few homœopathists who imagine they can even

> "Care wars and cerne, with application
> Of med'cines to the imagination,"

like the redoubtable Sidrophel.

Dr. Wilks threatens to treat us henceforth with the "silence of contempt." As to his *silence*, I suspect his most judicious friends must regret he did not make that resolution some months ago; and, with respect to his *contempt*, I apprehend we shall not find that very hard to bear, if it be of equal value with the contempt for courtesy, ingenuousness, sense, and grammar he displays in his last irate effusion, which I do answer, not because I think it worth a reply, but because I believe that truth is not apt to be stirred up from the depths of her well by the "silence of contempt."

I am, &c.,
R. E. Dudgeon, M.D.

32, Gloucester-place, Portman-square.

[To the Editor of the Medical Times.]

Sir,—The subject of dispute between Dr. Dudgeon and myself is scarcely deserving of much argument, and not at all deserving of a place in your columns. I would now merely observe, in answer to his remarks in your last number, that if he will not grant me the thousandth part of the exhalation from the surface of the body, he may substitute the thousand-millionth part, and retain the remainder of the sentence as it is. Of exhalation from the body, there is a question here, for this, consisting for the most part of vapour, would be condensed, and some portion of it—very great compared with an infinitesimal dose—would fall to the ground or adhere to the neighbouring objects.

As Dr. Dudgeon acknowledges that infinitesimal doses are contrary to common sense, and little or not at all supported by experience—the very opinion for which I have been contending—it is unnecessary for me to do more than to apologise to yourself and your readers for occupying your valuable columns with so unprofitable a subject.

I am, &c.,
H. Barnett.

Watlington, Oxon.

CONTEMPORARY CRITICISM.

[To the Editor of the Medical Times.]

Sir,—Living, as I do, at a distance from "the busy haunts of men," I find it, I assure you, sometimes,

> "Pleasant, through the loopholes of retreat,
> To peep at such a world;"

but my opportunities of seeing the journals, and especially that yclept the *Institute*, are few and far between. However, not long since, thanks to its *gratuitous* distribution, as I told you in a former epistle,—pardon my garrulity, for I am stricken in years,—lo,

> "With spatter'd boots, strapp'd waist, and frozen locks,
> News from all nations lumb'ring at his back,"

brought it to my own door, and, as a reward for unasked kindness, I obtained a niche in your journal for the following passage:—

"Our aspirations are invoked in behalf of the Profession of Medicine in this great country, *and* of the millions of *rational* beings which people its *surface*, *and* are subject to the infirmities and diseases incidental to the highest *and* most complicated part of organized nature."

Doubtless, Sir, Nature awarded to the Editor of the *Institute*, in common with "every man, his modicum of sense," and in his ordinary moods, probably, that gentleman may be classed among "the *rational* beings which people the *surface* of this great country," the aforesaid sentence having been indited when he was slightly elevated,—somewhat raised above the "surface;" in fact, *in nubibus*, or in the situation a country player described himself, "mounted on the winged steed styled Pegasus."

I write now, Sir, to tell your readers, that this rider of Pegasus failed to follow the sage advice given by a little unwashed urchin to the above-mentioned grandiloquent player, "Mind he don't kick ye off;" for the next week's *Institute* appeared with the appeal on its cover, minus only the restive sentence.

In fact, the Editor was fairly kicked off his Pegasus, and acknowledged the completeness of his fall by not attempting to remount; for, instead of amending his diction, and converting his nonsense into common-sense, he omitted the whole, as unamendable. Had not the appeal been entirely withdrawn before its third reading, I had intended to have diverted your subscribers with extract after extract from that ludicrous composition, till sentence after sentence would have been by the judicious proprietors omitted,—the Appeal growing, week by week, beautifully less, until it would ultimately have vanished. However, Sir, it is, I think, unfair to attack the fallen, and so I rest satisfied that the appealer has fairly allowed that he has out-Dogberryed Dogberry,—the latter having only requested another to do what the Institution has done for himself.—I am, Sir, &c.

Eheu Quam Videbi.

Dated from the Surface of the Great Country,
January, 1851.

P.S. By the way, I observe Mr. Jackson has at length found a "refuge for the *Destitute*."

THE CHOLERA IN PLYMOUTH.

[To the Editor of the Medical Times.]

Sir,—It was only made known to me a few days ago, that a letter from Dr. Roe, of Plymouth, directed against me, had appeared some time since in the *Medical Times*.

I had been absent from town, and therefore remained so long ignorant of it.

I find it published in your Number of the 14th December last, and to abound in most illiberal insinuations. So far as Dr. Roe might raise controversy on any statement, or upon any fact made or dealt with by me, I should neither shrink from, nor in reply to or acknowledgment of, have been reluctant to occupy your pages, which no doubt you desire to retain for useful information or argument. But this letter of Dr. Roe's is a tissue of personalities, and constrains to unseemly altercation.

I should have passed it unnoticed, as I see in writing it he has been actuated only by the *cacoethes scribendi*.

As a young practitioner, however, I cannot afford to leave insinuations of such character to pass unheeded, which might prejudice me in the consideration of professional brethren who prize carefulness and honesty in observation and statement.

In my previous letter to you I believe I established reasonable claims to be considered correct in all important particulars of statement contained in my paper concerning "The Origin and Spread of Cholera in the Eighth District of Plympton St. Mary."

The *proper* matter at issue between Dr. Roe and me is, that Noss Mayo was not, as I have said, a community of 400 persons at the time of the outbreak of cholera, but only of 352.

Now, Noss Mayo is a village situated principally within the creek of that name, yet continued without, where, under the same name, are included a few houses; and within the creek are Higher and Lower Coombe, situated in the same conditions of locality, though scattered as a community; these likewise are comprised in the limits and extent of the village of Noss, all of which, as ascertained by entering every house, door to door, was found to number 400 souls.

It is disingenuous of Dr. Roe to deprecate the quality of my facts, in the assumption that the people are such dullards as only to mislead rather than inform. What required to be asked of them? How many of a resident family they were at the outbreak of cholera and throughout the epidemic period, the age and sex of each, what sickness occurred to them, its character and termination.

The record of deaths was adopted from the Registrar's return,

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which corresponds with that derived from my own notes, except in two instances, in which the ages are stated a year different.

It is a sophistical art of Dr. Roe to affect to discredit the statements of my paper, by alleging impossibility to authenticate its date.

There are no hobnails so mean as to be incapable of answering such inquiries as I have indicated; else such difficulties must be introduced by the method of the inquirer.

These inquiries relate to matters of a simple and positive nature, involving no greater difficulties than a computation of the ten fingers, and a judgment of yes or no. Now, of the doctor's insinuations, one is in these words:—"And he keeps up the illusion of his being an eye-witness of those fearful scenes throughout his paper and letter." Why, it must be against the vanity of this gentleman I have sinned: for although but inadvertently can I have used the present tense in my statement of circumstances when not actually in them engaged; yet he, as emulous of more famous story, told us the plague of Noss; how a "sky of brass burned above by day;" then from the earth there rose "a reeking stench by night!" How the night was disturbed in its darkness by the flickering lamp of sickness, by the hoarse whisper of grief and cry of desolation! I say to such arts and such efforts, the story is effective, it catches the ear, and fills the eye and the imagination; it is a good picture for a painter who had been no witness of the scene; but its weight of science for medicine, affects not the balance.

The manner and the time at which I was invited to proceed to Noss Mayo by my friend Mr. Bowie, and my purpose in going thither, were such as I have stated. I arrived on the 29th of June, and was engaged over the whole of the 8th district of Plympton St. Mary; and such was the extent of epidemical spread, that some days, by myself alone, 70 cases were visited, all of which were suffering from one grade or other of choleraic distemper.

My sphere was not in Noss, for the violence of the pestilence was there declining; and I have not attempted "to convey" any "impressions" that I was "there hard at work," otherwise than as an investigator. Dr. Roe mistakes me; I meant an exposition of facts, not a parade of labours. He then says: "He has worked up, with amusing ingenuity, some tables;" "table after table is built up, which have absolutely no more substantial foundation to rest on than the baseless fabric of a dream." Now, this is merely fine writing, with some incivility; but what follows is something very much stronger,—"And he made out, by some system of multiplication best known to himself, a population of 400 souls." After such insinuations, he thus winds up:—"In conclusion, permit me to observe, that nothing in this letter is meant offensively nor uncourteously; and I hope my remarks will be received in the spirit they are dictated in,—good-will to men." This needs no comment; such simplicity of soul dwells alone in Dr. Roe, and I believe not even in any other of the "Plymouth brethren."

In vindication of these aspersed Tables, I beg to say that the table of the state of sickness, precedent, concurrent, and subsequent to the epidemic period of the district, is, I believe, valuable, though unappreciated: it was carefully prepared, and with scientific purpose, and is peculiarly complete, for reasons there explained. The other Tables exhibit different aspects of the same data; they are the analytic expressions of related facts. The method or interpretation of these is fair matter for discussion or doubt; but Dr. Roe has to acquire a more laborious and less picturesque mode of dealing with the case of Noss, before my facts can be discredited.

By a trick, it is made to appear, that in my former letter I had been violent and abusive towards the schoolmaster. This I should be sorry to be guilty of. I certainly considered it necessary to estimate the worth of his evidence and opinions, as he was to be the guiding pillar to Dr. Roe.

Indeed, I believe him to be a respectable man; incidentally the schoolmaster of the village, but necessarily the tailor; yet, as a layman, *his* opinion may be liable to doubt, although, as a man, he may be beyond disparagement.

I have to apologise for occupying so much of your columns, but rely upon your liberality for sufficient opportunity to repel these paltry insinuations, so unworthy of Dr. Roe: and now, finally, I dismiss such altercations with him, yet not declining his proper criticism as to accuracy of observation, reasonableness of hypothesis, and soundness of argument.—I am, &c.

29, Harley-street. S. C. MacLaren.

TUBERCULOSIS OF THE TESTICLES.

[To the Editor of the Medical Times.]

Sir,—There is, in the last No. of the *Medical Times* (at page 100) a quotation from *L'Union Medicale*, in which M. Vidal (of Cassis) has laid down two general axioms respecting tubercle of the testicle:—

1. That where it is only *single*, there is general tuberculosis.
2. That where it is *double*, the disease is localised in the parts affected.

To each of these axioms I beg to report an exception.

1. In January, 1838, an infant, aged eighteen months, was brought to me suffering from some slight symptoms of indisposition, which subsided in ten days. On the 25th of the same month, one of the cervical glands had become enlarged, and it afterwards suppurated. After this small abscess had healed, the child improved, but never recovered good health. Towards the latter end of March he presented the usual symptoms of tubercular consumption, namely, hectic fever, emaciation, and sweats, but with no sign of disease in the lungs, or in any other organ.

On the 9th of April he died, and on the 10th I examined the body.

After a careful examination of every thoracic and abdominal organ, I could find no marks of disease in any, except the general emaciation of the body, and the bloodlessness of the tissues. My attention was, however, caught by a swelling of the right testicle, which, on dissection, I found had been entirely destroyed by tuberculous deposit, which had softened down into a light yellow liquid, like thickened pus.

This case appeared to me of considerable interest. Whilst the child was living, I had doubted whether it might not be an example of hectic fever without local disease, of which I had heard or read, but had never seen. After death, when the local disease was discovered, it was curious to observe how small an amount of disease, occurring in an organ not at all essential to life, and unassociated with disease in any other part of the body, might insidiously sap and destroy the life of an infant.

There was no disease of the *other* testicle.

2. To the second axiom of M. Vidal, I oppose the following case.

In August, 1839, I was in attendance on a young gentleman of about sixteen years of age, for an attack of influenza. He cursorily directed my attention to a swelling of the right testicle, for which he had consulted Sir Benjamin Brodie about a year previously. On examination, that testicle appeared to me to be entirely disorganized by a solid tuberculous deposit. On inspection of the other, I was much concerned to find that the same disease had attacked its epididymis. I proposed that, after his recovery from the present attack of influenza, he should again see his former adviser. Accordingly, we went to Sir Benjamin, who confirmed the opinions I had formed as to the nature and extent of the disease. He prescribed a course of tinct. ferri. muriatis, with small doses of iodine, and advised the removal of the patient into the country. After the latter advice had been adopted, my patient was at too great a distance to allow of my personal attendance, but I was informed by his relatives that in the spring of the following year he died of pulmonary consumption.

Dr. Baillie, in his "Morbid Anatomy," has noticed the disease which was present in these cases, under the title "Scrofula of the Testicles," (p. 311, Wardrop's Edition of Baillie's Works.) "The testicle is sometimes completely changed from its natural structure, and converted into a truly scrofulous mass. On such occasions, it is generally enlarged, and when cut into shows a white or yellowish white curdy substance, which is sometimes more or less mixed with pus."

Andral remarks that tubercle presents itself in the testicle in all its forms. Sometimes hard, dispersed in the form of small isolated grains, or conglomerated into a mass which projects from the exterior. Sometimes softened and transformed into a liquid matter, which, as in other cases, tends to the external surface by various fistulous orifices.

"M. Reynaud (says Andral) has recently found in a testicle some small, grey, semi-transparent granulations, as hard as cartilage, in a word, similar to the pulmonary granulations. This fact tends to prove that the latter may be formed in some other way than by the chronic induration of the pulmonary vesicles."—*Anatomie Pathologique*, p. 670.

Rokitansky remarks that tubercle not unfrequently attacks the testicle primarily, and that its chief seat is the epididymis, from which it spreads to the neighbouring genital organs.

The same pathologist states that "Tubercle of the testicle is of extreme interest, as contrasted with the immunity from tubercle enjoyed by the ovary."

One of the most important uses of our medical periodical literature seems to me, to be that of checking the too hasty generalizations of individuals by the more extended observation of the Profession. For this purpose, I would append these cases to the axioms of M. Vidal. I am, &c., John Mann.

4, Charterhouse-square.

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REPORTS OF SOCIETIES.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. LATHAM in the Chair.

DR. BEITH, R.N., exhibited a specimen of chronic rheumatic arthritis of the left hip, removed from a man aged 78, who, in 1846, was run over by a cart, which caused a fracture of the right arm, and a contusion of the left hip-joint, which latter soon became the seat of rheumatic pain. Permanent lameness was the result of the injury, and the patient was subsequently always obliged to walk with crutches. In August, 1849, he was again rendered very infirm and helpless, having slipped and fallen backwards. He did not, however, complain of having received any particular injury. On examination, a shortening of the left leg was perceptible, with eversion of the foot. Crepitus was detected in the hip. He died of pneumonia a few days ago.

Post-mortem.—The left leg was found to be about an inch shorter than its fellow; foot slightly everted, but readily restored to a proper position. Rotation causes articular crepitus at the hip. Trochanter major of left side rather higher than on the right. Muscles surrounding this joint much wasted; the larger ones had undergone fatty degeneration. Capsular ligament much thickened generally, but especially at the upper and outer part, where are deposited in the substance of this tissue osseous plates and nodules, having their inner surface more or less smooth. In this situation depend several vascular synovial fringes. The capsule is also much thickened under the psoas and iliacus internus muscles, presenting here, likewise, ossific depositions. The transverse ligament is in a natural state. Acetabulum much deepened, and its circumference generally widened. The encrusting cartilage and ligamentum teres have entirely disappeared. In place of the former is a thick deposit of porcellaneous material, which seems to be above the level of that portion of the cavity in its lower part, which is still in its natural state.

Femur.—Neck horizontal and somewhat shortened; head expanded, especially at the posterior part, so as to overhang the neck by a projecting margin; upper surface of the head extended outwards towards trochanter major, which is below the level of the head; encrusting cartilage absent, except at the lower part corresponding to the Haversian gland; in the remainder of its extent, the head presents porcellaneous material. The hip-joint of the opposite side was perfectly healthy.

Dr. Beith also exhibited a specimen of extensive comminuated fracture of the femur. A man, aged 80, fell down stairs on 5th November, 1849, and fractured his femur in such a peculiar way as to separate its upper half into two longitudinal pieces; one fragment includes the lesser trochanter and the posterior portion of the bone to its middle; the other piece comprises the head, neck, and remainder of the shaft down to the same point. The upper part of the lower fragment or half of the shaft has been drawn up by muscular action, so as to pass in a wedged manner between the two upper pieces, to a small distance; very complete ossific reparation has been accomplished. On the 15th March of the present year, he again fell, and the result was another fracture very obliquely directed through the lower half of the shaft. In consequence of the advanced age of the patient, his infirm condition, the great constitutional irritation induced by the extension of splints, together with the speedy production of bed-sores, it was deemed advisable to forego, to a great degree, the amount of restraint which the limb, under more ordinary circumstances, would have required. Death from apoplexy occurred on the 27th May last.

A moderate amount of semi-osseous spongy material unites imperfectly the fragments of the last fracture, contrasting strongly with the firm and large quantity of callus which consolidates those produced by the first injury.

The outer condyle displays the porcellaneous deposit, with the grooves and ridges so well described by Mr. Canton as characteristic of chronic rheumatic arthritis of the knee.

Dr. Hare exhibited a kidney weighing sixteen pounds, and which consisted of a congeries of cysts. It was removed from a man, aged 46, whom he first saw in January last for an attack of pleurisy. Under treatment the man recovered, and returned to his business till March 5th, when Dr. Hare was again called in. The night previous to this visit he had passed a considerable quantity of very bloody urine, which had apparently given him some relief from a constant pain he had in the left loin. On examination of the abdomen, which had lately become larger than usual, a large tumour was found, extending from the cartilages of the false rib on the left side to about half an inch below the level of the umbilicus, and forwards to within about an inch of the median line; on percussion, it was dull, and there was no interval of resonance between the tumour and the cartilages of the ribs; the dulness on percussion extended upwards beyond the lower margin of the latter. The anterior border was sounded, but presented no sign of fluctuation.

In April a considerable alteration was observed to have taken place in the tumour; it felt solid, and was without fluctuation; the lower border extended one and a half inch below the level of the anterior superior spine of the ileum; its anterior border was deeply notched on a level with the umbilicus, and percussion was resonant at the notch, as also for some distance obliquely across the tumour. It presented very much the physical signs of a double tumour or of two tumours; on placing one hand over the lower part of the abdomen, and pressing with the other against the left loin, although the tumour could be very slightly moved, it appeared to move as one mass, and Dr. Bright, who also saw the case, spoke confidently as to its "being all kidney, with intestine passing over it, and thus giving the appearance of two tumours." There was now a slight interval of resonance between the cartilages of false ribs and the tumour.

The urine, which had contained blood two or three times, was now clear. On December 9th, while at dinner, he fell suddenly from his chair, convulsed, and was insensible for more than a quarter of an hour, which was followed by sleepiness, numbness in both hands, and frequent twitchings. On the 12th, when seen by Dr. Hare, he had a vacant expression, wandered a little, but answered when spoken to sharply. There were slight twitchings of the upper extremities; pulse 72; feet and legs rather œdematous. The tumour appeared much the same as in April, except that it extended rather beyond the median line, and that the notch at its anterior border was less marked; its anterior border seemed also to be more overlapped by the intestines, on pressing which from under the hand, its edge could be distinguished. Urine pale, without sediment, specific gravity, 1008, contained one-tenth albumen.

On 13th, he had two fits somewhat similar to those on the 9th, and he died on the 16th, probably from presence of urea in the blood.

Examination.—Left pleura not quite so transparent as natural, but free from adhesions. Heart slightly hypertrophied; but valves free from disease. The coverings of a hernia situated just above the umbilicus were very thin; the sac empty, but close to it lay a tongue-shaped portion of the omentum, and also a knuckle of dark purplish, much congested, but not mortified intestine, which probably was a portion of bowel, which had shortly before been strangulated. The left side of the abdomen was occupied by an enormous kidney, the intestines being pushed over to the left side. This kidney also extended under the intestines half way across the right half of the abdomen; its upper surface was adherent to the diaphragm, and it had so compressed the spleen, that the latter formed as it were a cap to the kidney. The pancreas was carried forwards, and was adherent transversely to its anterior surface, near its upper part; and the descending colon, somewhat contracted, was likewise adherent to its anterior surface, but perpendicularly, so as to divide it into two nearly equal portions. The kidney measured 15½ inches in length, 9½ in breadth, and about 23 in circumference, and weighed exactly 16 lbs.; it still retained somewhat the kidney shape, but its surface was uneven from the projection of different cysts; it consisted of one enormous congeries of cysts, varying in size from a small pea to a cavity holding more than a pint of fluid; the larger cysts were at its surface, the smallest ones about its centre; many of the smaller ones projected more or less into the cavity of the larger ones; none of them contained hydatids; they presented different tints, from a dark purple to a light straw-colour, (the latter much more rare than the former), according to the colour of the contained fluids. The darker fluids were generally the thickest, and at the bottom of these cysts there was more or less of a dirty-red grumous-looking fluid. The thickness of their walls varied generally in pro-

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portion to their size; the larger having the thickest parietes. No trace of the proper structure of the kidney was discoverable. The fluid, under the microscope, showed an immense number of blood discs, (more abundant in the darker fluids); some oil globules, exudation corpuscles, portions of the tubule of the kidney, and a considerable number of plates of cholesterine. The right kidney presented incipient disease of the same kind, and was enlarged to double its natural size.

MEDICAL NEWS.

ARMY MEDICAL DEPARTMENT.—It is rumoured that the successor to Sir James M'Grigor is to be Dr. Andrew Smith, who has so long acted as the colleague of the present Director-General. We trust the report is true. No appointment could be more acceptable to our brethren of the army; for no man is held in higher repute, or more universally respected by the corps to whose welfare and interest he has been so long devoted, than Dr. Andrew Smith. It is said the office and emoluments of Director-General are to be abolished, and the officer appointed to have the rank and title of Inspector-General, with a salary of 1200*l.* a year.

THE HUNTERIAN ORATION.—It is stated that Mr. Stafford, who was appointed by the Council of the Royal College of Surgeons to deliver the annual oration in memory of John Hunter, is unable from severe indisposition to fulfil his engagement. Mr. Stafford had nearly completed his subject, when the death of two attached friends, upon whom he had long been in attendance, prevented him from resuming his pleasing task, or completing it in a manner either satisfactory to himself, or to the members of the Profession before whom it was to be delivered. The fact of there being no oration this year is not unprecedented, as there was none delivered in the years 1835 and 1836, and still later, in 1845, when it was stated that the Council were afraid to meet their injured members, and deferred the oration in consequence until the following year, when it was delivered by Mr. Lawrence, who, in alluding to the report in question, told his hearers that he "stood there to proclaim the falsehood of the accusation of their having any such fear."

POOR-LAW MEDICAL RELIEF.—On Friday, the 31st ult., a Deputation from the Convention of the Poor-law Medical Officers had an interview with Lord John Russell, with reference to the evils of the present system of medical relief to the sick poor, at which Sir George Grey was present. The Deputation, which was accompanied by General Sir De Lacy Evans, M.P.; Mr. Jacob Bell, M.P.; Dr. Wilson, Senior Physician of St. George's Hospital; Mr. Hunt, representative of the Provincial Medical Association; Mr. James Stedman, Vice-President of the National Institute of Medicine, Surgery, and Midwifery, consisted of Dr. Hodgkin, the Chairman of the Committee; Dr. Bainbridge, and Messrs. J. Lobb, W. Liddle, E. White, W. Cantrell, of Wirksworth, Derby; Peter Martin, Reigate; E. Boulger, Bletchingly; G. Ross, G. T. Mitchell, Dr. Barnett, and Charles F. J. Lord, the Honorary Secretary.

ST. MARY'S HOSPITAL.—It would appear that, the funds not being forthcoming for placing this Institution in a position to receive patients, the building is proposed to be converted into a kind of caravansery or model lodging-house for visiters to the Exhibition. We know not how our continental friends will like to be domesticated in the wards of an hospital for the cure of diseases, or what notion they will entertain of the hospitality of the world's host, who first invites them to a banquet—"the feast of reason and the flow of soul,"—and then lodges them in a place associated with all "the ills that flesh is heir to." But this we may promise them, that the various medical officers will assist their senses to a due appreciation of the World's Exhibition. Mr. White Cooper will endow them with double sight or with half sight, according as there shall be too much or too little to see, not only in the Exhibition itself, but also in this paragon of a metropolis in sanitary matters,—cat's eyes for gross darkness, and organs of vision to pierce through fogs. Mr. Toynbee, assisted by Mr. Pilcher,—"*Pilcher late Maule*,"—will be but too happy to render the organ of hearing in our friends fully susceptible to the influences of our London street brawls; Dr. Tyler Smith will explore fallopian tubes, and, with his celebrated instrument, promote in ladies, just what ladies wish "who love their lords," thus adding much to the ultimate effect of the Exhibition of Industry of all Nations; while Mr. Isaac Baker Brown, on the other hand, more Malthusian in his views, will undertake the extirpation of ovaries, and return our fair visiters fit denizens for continental nunneries. Dr. Stilson will take the lungs of our visitors as his immediate charge, and no doubt render them callous to all our atmospheric nuisances, or so alter conditions, that reeking churchyards and overflowing cesspools shall be an actual desiderata for our guests; Dr. King Chambers will take especial care of our fat friends; while the Committee may be usefully employed in teaching the English language from that practical lesson-book, Dr. Henry Bennet's Testimonials.

HOMŒOPATHY AND THE POOR-LAW GUARDIANS AT SUNDERLAND.—It having come to the knowledge of the Board of Guardians that Mr. John Potts, one of their district-surgeons, was treating the pauper patients homœopathically, that gentleman was requested to attend at their next meeting and explain; when, accordingly, on Jan. 2nd, Mr. Potts waited upon the Committee, and admitted that, during the previous eight months, he had so practised, giving, at the same time, each patient his or her choice of homœopathic or allopathic treatment. Mr. Potts, at the same time, requested permission from the Board to continue the same method in practice, replying to a charge made in the discussion by Mr. James Hills, of imaginary efficacy, by the practical fact, that the week before he had cured a horse of the grease, and several sheep of serious ovine disorders, all by homœopathy. On Friday, the 17th, the question was discussed before the whole Board, in consequence of a letter addressed to them by Mr. Potts, to the effect, that he was willing to give the patients their choice of practice, and trusting he would continue to deserve the confidence of the guardians. Mr. Hawley, the Poor-law Inspector, who was present, "was of opinion that no medical officer was justified in taking up any system that was *not recognised by the Colleges*." After some further remarks, the question was postponed for discussion on the following week, each guardian to have a proper notice of the same. On Friday, the 19th, the question was renewed, Mr. James Hills, Vice-Chairman of the Board, moving the following resolution:—"That it having come to the knowledge of this Board that Mr. John Potts, one of the medical officers of the Union has introduced what is called the homœopathic system in the medical treatment of the pauper patients under his care, he be informed that the Guardians of this Union will not sanction any other mode of treatment than that recognised by the Colleges legally authorised to grant such diplomas or degrees *as qualify to fill the situation of medical officer to the Union*; and that the clerk forward Mr. Potts a copy of this resolution." Upon this the following amendment was moved by the Rev. Richard Skipsey:—"That the clerk be directed to write to the Poor-law Board and ask their opinion as to the propriety of the medical officers being permitted to pursue homœopathy, or any other mode of practice, in the treatment of pauper patients, than that usually sanctioned under diplomas from the Royal Colleges of Surgeons and Physicians." This amendment was carried by a majority of *one*, and then became the original resolution, an amendment being moved by Mr. John Watson, "That no gentleman practising homœopathy or other quackery be permitted to remain a medical officer of this Union," which was carried by a majority of *one*. Mr. C. T. Potts, a guardian, and brother of the globulist, ejected a most violent oration against all homœopathic questioners, and charged the Medical Profession with gross prejudice against the infinitesimal science in general, and unbounded spite and jealousy against his brother in particular, deploring their "contemptible and pitiable ignorance," which he would take care should be exposed to the world! with an earnest and somewhat fulsome panegyric upon those clear-sighted people who had the good sense to agree with him. Mr. C. T. Potts sat down much relieved and satisfied with himself.

OBITUARY.—On the 1st inst., at Fermoy, Dr. Murphy, aged 75.—On the 17th inst., in Dublin, William Gardiner, Esq., of Towerhill, county Sligo, late surgeon of the 4th Dragoon Guards.—In Clarence-place, Glasgow, on the 26th ultimo, Wm. Spence Pringle, M.D.

MILITARY APPOINTMENTS.—51st Foot: Staff-Surgeon (of the second class) George Stewart Beatson, M.D., to be surgeon, vice Sinclair, who exchanges. Hospital Staff: Acting Assistant-Surgeon Christopher F. Hood, M.D., to be assistant-surgeon to the forces, vice Edward William Bawtree, M.D., who retires on half-pay. Surgeon John Hartley Sinclair, M.D., from the 51st Foot, to be Staff-surgeon of the second class, vice Beatson, who exchanges.

DEATHS IN PUBLIC INSTITUTIONS.—The mortality for the week ending Feb. 1, has been as follows:—Workhouses, 101—53 males and 48 females; Military and Naval Asylums, 11—10 males and 1 female; General Hospitals, 31—19 males and 12 females; Hospitals for Special Diseases, 6—4 males and 2 females; Lying in Hospitals, none; Lunatic Asylums, 3—2 males, 3 females;

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Military and Naval Hospitals, 16 males; Hospitals and Asylums for Foreigners, 2 males; Prisons, 2 males. Total, 168—102 males and 66 females.

Water for the Poor.—Mr. Martin, the Registrar of St. James's, Bermondsey, reports several children to be now ill in Providence-buildings, and he says that the tidal ditch is abominably offensive, and worse than he has ever known it at this season during upwards of 20 years, and yet it affords the only water which some of the inhabitants of Jacob's Island are able to procure for drink. He has another patient in the same court, whose life, he believes, will be sacrificed to the surrounding abominations. If we do not give stones when the poor *cry* for bread, it appears, at least, that we give sewage-water when Nature asks for drink.

London Hospital.—Dr. Frampton, in consequence of ill health, has exchanged duties for the winter with his Assistant Physician. Dr. Fraser will, therefore, take the wards, and Dr. Frampton the out patients.

Self-supporting Dispensaries.—Several students of the London Hospital having signed a requisition to Mr. Smith, of Southam, to give them a lecture on the subject of Self-supporting Dispensaries, that gentleman applied for the use of the lecture-room for the purpose. This, however, was refused, on the score that the proposed subject was *non-scientific*.

Plymouth Eye Infirmary.—The funds of this Institution were increased during the past year by a legacy of 25*l.* (duty free) from Mr. Thomas; a third donation of 50*l.* from Sir Ralph Lopes, Bart.; and a donation of 50*l.*, also the third, from the Earl of Mount Edgcumbe.

Owen College, Manchester.—Dr. Edward Frankland, a pupil of Liebig's, has been appointed by the trustees the Professor of Chemistry in this College.

The late Mr. T. Ansaldo Hewson, of Woburn-place, in addition to the bequests of 1000*l.* to University College Hospital, and 500*l.* to King's College Hospital, has left 1000*l.* to the Hospital for Consumption at Brompton.

Coloured Medical Students in the United States.—Considerable excitement lately occurred among the medical students at the Grove College, Boston, arising from the presence of three coloured persons, who were admitted to the lectures with the other students, and from the report that a woman had been matriculated as a medical student. A meeting was called, and resolutions passed protesting against the admission of coloured students, and against that of women into the class. Finding so much opposition to exist, the female aspirant for medical honours and labours withdrew her application. In reply to the resolutions of the students, the Faculty stated, that the coloured gentlemen had already paid for their tickets, and therefore could not be refused. They consequently remain. It is said they are preparing themselves for practice in Liberia.

Cape de Verde Islands.—These islands, one of which (Boa Vista) some years since was visited with a fearful epidemic fever, after the Eclair steamer had called there with fever on board, have lately been devastated by fever, preceded by measles and hooping-cough, which prevailed so universally and so severely that scarcely an individual escaped; and, out of a population of about 4500, upwards of 700 deaths occurred in four months. In many houses not an inhabitant remained to bury the dead. Those that did not perish from disease died of starvation.

Sickness in India.—No marked improvement can yet be recorded in the health of the garrison at Lahore; the number in hospital is slightly diminished, but that of deaths has increased. 96 men of the 1st European Fusileers have died of the prevailing epidemic, and that regiment has lost, altogether, 139 men during the last ten months. At Peshawur the sickness is decreasing; the number in hospital, which has been upwards of 2600, is now below 1400. Alterations are about to be in the accommodation for the soldiery, and Loodiana, it is said, will cease to be a military station on account of its insalubrity.

Imperforate Anus.—A case of remarkably prolonged existence under this disease lately occurred in Old-street, St. Luke's, where a child is said to have died, at the age of five weeks, of "rectum imperforatum, peritonitis."

The Cork Appointment.—The principle contended for with the Honourable Board of Ordinance having been vindicated, the Medical Practitioners of the Cork Union, at a meeting held January 21, unanimously resolved, that a subscription should be set on foot to enable Mr. Weare to obtain his diploma, (as throughout the entire proceedings the Profession never contemplated injury to that gentleman,) it having been stated that it was only want of means which prevented his qualifying. Dr. Scott, of Queenstown, and Dr. Corbett, have consented to act as joint treasurers to any fund raised.

Liverpool.—Dr. Dundas, Physician to the Northern Hospital, Liverpool, is about to give, on each successive Wednesday, commencing Feb. 6, in the theatre of the hospital, a course of lectures on the following subjects:—1. On a premature general decay of the system incident to Europeans on their return to Europe from warm climates, with suggestions for a rational mode of treatment, based on pathological observations. 2. New views on the sources and causes of intermittent fever, based on a large body of facts totally subversive of the notion of a malaria or special marsh poison. 3. On the essential identity of typhus fever of Europe with the ordinary fevers of hot climates. 4. Observations on the climate of Brazil, and on the social, moral, and political relations of the people. The above lectures are open to the Profession.——Mesmerism and its humbug allies appear to take wonderfully well in this town. A Captain Hudson has been holding forth in the Concert-hall. He operates on several, but one remarkable one, called Mary, who possesses the power of reading with her eyes covered. It is said that she underwent the severest tests by gentlemen of the audience, who declared that her eyes were so completely bandaged, that it was impossible for her to see by the ordinary medium of vision. Cards, bills, and books were handed to her by the audience, which she read with ease and facility. We know not whether Mary is the clairvoyante who predicted the return of Sir J. Franklin, but it is certain that the Captain had one female who predicted this, and the locality in which he was then placed. The mass of people look so superficially at things, that no wonder they are so easily gulled.

North Devon Infirmary.—There is a vacancy in the office of Resident Medical Officer in this Infirmary, owing to the resignation of Mr. Morgan. Mr. Blackall Manach and Mr. Forester are candidates.

Royal Society of Edinburgh.—Lord John Russell has announced to the Council of this Society, the intention of Government to place 1,000*l.* at its disposal for scientific purposes. This is as it should be. Our scientific Societies should receive some support from the Government, as has long been the case in France and Ireland. They should not be left entirely to private munificence. Several have failed altogether for want of additional means, and others are tottering. We have the means of knowing, that without timely aid one of the long-established scientific professional Societies in London, which has been the means of effecting considerable good, will shortly be closed.

Marylebone Board of Guardians.—A meeting of this Board was held on the 31st instant, to consider the Report of the Medical Officer on the bad state of health of the infirm poor and children in the workhouse, to receive the Report of their Committee thereon, and also to consider a letter from the Poor-law Commissioners on that subject. Certain alterations in the diet, &c., were agreed on *pro tem.*, but we regret to add that some of the guardians, angry, perhaps, at the unpleasant exposures which have been made, indulged in coarse and unseemly invective against their medical officers, particularly Mr. Keyworth, who were accused of having a motive in making such a Report. A motive they undoubtedly had; and it was to benefit the poor, and to have measures enforced by which their health should be maintained. The guardians of Marylebone may be assured, that abuse of their medical staff will not cover their own sins of omission and commission; nor will the public be satisfied unless something real be done to remedy the prevalence of sickness, and diminish the mortality. We know nothing of Mr. Keyworth, but his conduct shows him to be a man of humanity and skill in his profession. Dr. Allen has a high reputation among his brethren, and no remarks tending to disparage it from the lay members of a Board of Guardians will be listened to for a moment.

SANITARY CONDITION OF LONDON.

It has been our object to show, in a previous paper, that with respect to one district of London (Rotherhithe) sanitary matters have been most grossly neglected, although in 1847 the imminent condition of that district was clearly pointed out before a Parliamentary Commission—that nothing was done to remedy the evil, although in the autumn of 1848 the cholera was then making rapid strides towards England—that 1849 found this very place ready, and just suited as a handmaid to the cholera—and that this fell disease, having at last run out its virulence, that still, up to 1851, other diseases are now carrying off their hundreds of victims, the intolerable nuisance still remaining unabated.

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We feel, however, that it would be highly dangerous to the public if they were to console themselves with the notion that such a state of things is only peculiar to one locality of the metropolis. It is a melancholy fact that in whatever direction we turn, the same kind of circumstances meets us, and attest that from the neighbourhood of palaces to the purlieus of hovels, the destructive influence of the same causes which were in operation in 1847 and even in 1832 still prevails.

In the year 1847 the Metropolitan Sanitary Commissioners reported—"That on an examination of the actual state of the back streets, lanes, courts, and alleys of the metropolis, it is found that in general little or no improvement has taken place in their sanitary condition since the prevalence of cholera in 1832; and that, were this disease again to break out in the present state of these localities, there is no reasonable ground to suppose that the pestilence would not spread as extensively and prove as fatal as on its former visitation."

Now, what was the result of this report contained in our official blue books, and emanating from an expensive Parliamentary Commission. It is notorious that, the cholera again breaking out, two years later, these very back streets, lanes, and alleys were the foci of its virulence as was then predicted, and we have now to show, such having been the consequence of neglect of the Commissioners' report, that still up to the present time, the majority of those places remain in the same, or are in a worse condition, and hourly adding their victims to our bills of mortality.

Thus, in the West London sub-district, Plough-court, St. Andrews, was one of the strongholds of Cholera, in September, 1849; and in October, 1850, the registrar, in detailing a case of diarrhœa, reports of it, that this court, in which the cholera raged last year, is deficient in ventilation and overcrowded. Two rooms on the first floor, (speaking of No. 30,) contain 7 persons, the second floor contains 5, the third 7. Four persons have had scarlatina.

In Bethnal-green, in which district the annual value of house-room to each inhabitant is 7d. per week, the cholera, in 1849, took off 95 in every 10,000 inhabitants, and we find the registrar then describing the awful visitation as follows:—"The 12th, 13th, and 14th of this month (August, 1849) will long be remembered in this neighbourhood; surgeons wanted in many places at once; the hurried passing and repassing of messengers, and the wailing of relatives, filled the streets with confusion and woe, and impressed on all a deep sense of an awful calamity." Still, for all this, we have it described in September of 1850, as crowded, ill-cleansed, and undrained, a very extensive area of it abutting on gorged churchyards, and, as a natural concomitant, disease and death very rife there at the present time.

Cambridge-crescent, Agar-town.—A cholera locality in 1849, and then described as "an open place, but the houses small and crowded, and very badly drained." It is in 1850, stated as follows in the weekly returns, "a wretched and unhealthy locality, with houses of two rooms, which are damp and unfit for occupation; in wet weather most unhealthy."

Highbury-vale, Islington.—In 1849, this being also a cholera locality, is thus described in one part of it:—"Four houses with but two privies, the latter communicating but very incompletely with a black open ditch or sewer running across the bottom of the garden; the smell very offensive." In July, 1850, a death is registered from 1, College-place, Highbury-vale; and Mr. Butterfield states, that from the neglect of the landlord the basement of the man's house had become some inches deep in water since April. Again in September, at the very same house, another death; and the same gentleman says, that an open sewer passes through the Vale, and that several cases of diarrhœa had been registered in the quarter. Again, in October, at 3, Myrtle-street, Highbury-vale, a death from diarrhœa; and this is described as the most unhealthy part of the district. And again in November, at 2, Myrtle-street, the very next house, a death from continued fever; and the registrar states, that the open sewer, so often reported, runs across the bottom of the garden belonging to this house.

Spitalfields.—This whole district was seriously visited in 1849. In three weeks, deaths from cholera are recorded at Nos. 1, 12, and 13, Keate-street, and the locality is described as over crowded and badly drained. In September, 1850, we have a death from scarlatina maligna, at Pope's Head-court, and it is called a close, crowded, badly-drained, and unhealthy place. In October, a death from the same cause, in one of the very houses which were visited by cholera in 1849; and in November, at 10, Dorset-street, a death from bronchitis, accelerated by exposure in a dilapidated abode, which afforded no sufficient protection against the weather, and was totally unfit for a human habitation; the majority of the houses in the street are overcrowded and dirty, and several are in a very ruinous state.

Clapham.—Our readers will recollect that this is the district in which Albion-terrace, Wandsworth-road, is situated, and from whence, in one short week of August, in 1849, "nineteen masters, servants, parents, and children," met with a premature grave; and the Registrar-General remarks at that date, that the drains had burst, overflowed into the tank, and impregnated the water with which the houses were supplied. On the back ground in the distance was an open ditch, into which nearly the whole of the soil of Clapham runs; while other places in the district are there described as suffering severely from cholera as the result of the same causes. Now surely here was a condition of things which could not be slighted. The Almighty here had seemed to set the mark of his terrible vengeance upon an evil, and we must say wicked, state of things; and yet in November, 1850, it appears that this foul and loathsome ditch still remained, for we read of a death in the weekly returns in Clapham sub-district, at 7, Crescent-cottages, James-street; and Mr. Frost writes, that "*there is a large open ditch* within a few feet of the cottages, the effluvium from which is very offensive, and is hardly bearable in summer."

St. Giles.—In 1849, the deaths from cholera in Wild-court and Wild-passage were very numerous, and the whole district was then described as very ill-drained and filthy. And yet, in November of 1850, in recording a death from typhus fever in this same Wild-passage, Mr. Faulkner says: "The mother of the child states that this is the third child she has lost in six months in this house, in which there is constantly an intolerable smell from the drains, &c." *This occurred in the same house in which several cholera cases died in two weeks of September*, 1849. And then on the 10th of November, 1850, at Broad-street, (same district,) a death from typhus is recorded, and the medical attendant asserts, that "this is the fifth person in the house who had been attacked with scarlet fever, and two died with symptoms of typhus."

Once more.

Whitecross-street.—In this district we had 65 deaths from cholera in 14 weeks of 1849, and many of these occurred in a filthy locality called Warwick-place. What, then, was the state of it in 1850. In July, at No. 4, Warwick-place, a death from typhus, and in November another death from typhus at No. 7. And in the same week another death from typhus at No. 9, and it appears from the Registrar-General that "no less than nine persons, including four children, have, within the last fortnight, been brought from the same locality to the workhouse, all suffering under typhus, and three of them are dead. Two of the deceased were husband and wife, of very filthy habits, who suffered their four children to live in a like or even worse condition than themselves; and the whole family occupied a single room. The woman who lived at No. 7 was cleanly in her person, and is supposed to have caught the fever in waiting on her neighbours. One division of Warwick-place is a kind of court, consisting of sixteen houses, and on one side there are ten dirty houses (only three rooms, one over the other, in each house, and no back windows). There is only one privy, with a cesspool beneath, which serves for the use of the sixteen houses. There is no drainage, except a narrow surface drain running down the middle of the court. There is only one repository for dust in the whole of Warwick-place (consisting altogether of about twenty-six houses), which, when full, the inhabitants have the greatest difficulty in getting the contractor to empty; consequently, it becomes a great nuisance, and renders the place very unhealthy. There is also a kind of stabling opposite the dust-hole, in which two pigs are kept, thereby adding to the nuisances already mentioned."

Now, these are a few out of hundreds of cases which might be adduced, in which it appears, that, notwithstanding the fearful onslaught of cholera in 1849, still the very same inimical causes are at work in 1850.

But the cholera having subsided, the people of this country were invited, on the 15th November, 1849, to a general thanksgiving to God to acknowledge his goodness and mercy in removing the plague from us. We cannot help putting it seriously to the authorities of this country, whether, viewed in the light of the lesson then offered, their

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neglectful conduct as to sanitary matters since does not stamp that day of thanksgiving as a solemn farce, and whether a second chastisement still more severe than the last may not now be awaiting the people of this nation. The question is not whether the annual mortality of a country is no greater than in previous years—but it is whether our population is suffering unnecessary ills—whether it is necessary, as a law of God's providence, that more than one-fourth of deaths from all causes should arise from disease of the lungs,—whether such tremendous mortality should be visited upon infantile life,—and whether the industrious classes of this great nation are to sicken and pine in filthy, close, and death-dealing abodes, when the animals in our Zoological Gardens are quartered in comparative mansions, and our criminals thrive in well-ventilated and well-appointed palaces.

DEATHS *in the Metropolis for the week ending Saturday, Feb.* 1, 1851.

Causes of Death.	Feb. 1. 0	15	60	All Ages	Sum of Ten Weeks.
All Causes	443	356	232	1041	10591
Specified Causes	441	356	232	1029	10501
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	173	37	20	230	2028
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	4	24	13	41	528
3. Tubercular Diseases.	64	126	9	199	1759
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	47	38	33	118	1205
5. Diseases of the Heart and Blood-vessels	4	23	15	42	386
6. Diseases of the Lungs, and of the other Organs of Respiration ...	78	65	63	206	2284
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	10	19	17	46	584
8. Diseases of the Kidneys, &c. ...	...	7	2	9	86
9. Childbirth, Diseases of the Uterus	1	4	1	6	113
10. Rheumatism, Diseases of the Bones, Joints, &c.	...	3	3	6	74
11. Diseases of the Skin, Cellular Tissue, &c.	2	1	...	3	11
12. Malformations	4	...	...	4	27
13. Premature Birth and Debility ...	24	...	...	24	214
14. Atrophy	18	3	1	22	155
15. Age	...	...	49	49	749
16. Sudden	3	2	4	9	125
17. Violence, Privation, Cold, and Intemperance	9	4	2	15	221
Causes not Specified	2	...	...	12	90

1. Small-pox ...	20	Paralysis	12	Disease of Spleen	...
Measles	30	Delirium Tremens	4	8. Nephritis.....	1
Scarlatina ...	16	Chorea	...	Nephria or Bright's Disease ...	4
Hooping Cough	51	Epilepsy	9	Ischuria	...
Croup	9	Tetanus	...	Diabetes	...
Thrush.....	5	Insanity	1	Stone	...
Diarrhœa ...	25	Convulsions	35	Cystitis	...
Dysentery ...	4	Disease of Brain, &c.	15	Stricture of Urethra ...	2
Cholera	...	5. Pericarditis...	1	Disease of Kidneys, &c.	2
Influenza ...	6	Aneurism ...	4	9. Paramenia ...	...
Purpura and Scurvy	1	Disease of Heart	37	Ovarian Dropsy.....	...
Ague	1	6. Laryngitis ...	4	Childbirth (see Metria)	4
Remittent Fever	...	Bronchitis ...	92	Disease of Uterus, &c.	2
Infantile Fever	2	Pleurisy	2	10. Arthritis	...
Typhus	48	Pneumonia...	76	Rheumatism	5
Metria or Puerperal Fever	5	Asthma	21	Disease of Joints, &c.	1
Rheumatic Fever	...	Disease of Lungs, &c.	11	11. Carbuncle ...	1
Erysipelas ...	3	7. Teething	7	Phlegmon ...	1
Syphilis	3	Quinsey	...	Disease of Skin, &c....	1
Noma or Canker.....	1	Gastritis	...	17. Intemperance	...
Hydrophobia	...	Enteritis.....	3	Privation of Food.....	...
2. Hæmorrhage	5	Peritonitis ...	5	Want of Breast-milk	2
Dropsy.....	14	Ascites.....	1	Neglect	1
Abscess	2	Ulceration (of Intestines, &c.)	1	Cold	...
Ulcer	...	Hernia.....	4	Poison	...
Fistula.....	...	Ileus.....	2	Burns and Scalds	2
Mortification	1	Intussusception	...	Hanging, &c.	3
Cancer	17	Stricture of Intestinal Canal	...	Drowning ...	3
Gout.....	2	Disease of Stomach, &c.	2	Fractures ...	3
3. Scrofula	6	Disease of Pancreas ...	...	Wounds	...
Tabes Mesenterica	3	Hepatitis.....	6	Other Violence.....	1
Phthisis (or Consumption).....	153	Jaundice	4	All Violence	12
Hydrocephalus.....	32	Disease of Liver	31		
4. Cephalitis ...	13				
Apoplexy.....	20				

BIRTHS AND DEATHS.

	Births.		Deaths.		Births over Deaths.	
Males	778	1537	537	1041	236	496
Females	764		504		260	

The Deaths in the several Districts are as follow :—

Districts.	Population in 1841.	Feb. 1, 1851.	Sum of Ten Weeks.
London...	1948369	1041	10591
West	361189	149	1578
North	376568	181	1893
Central...	374199	172	1918
East	291067	214	2331
South	503346	318	2896

TO CORRESPONDENTS.

Our Articles on the Irish Medical Charities will be continued next week, and in each alternate Number of the Journal until completed.

Lithotomy in a Child Aged One Year and Eight Months.

A Correspondent, who does not give his name, writes as follows :—

"I should feel obliged if you would record the following case of lithotomy, which was successfully performed on the 9th of January in the present year, upon a child one year and eight months old. For the information of Mr. Geo. Uttermarck, who reports a case in your Journal for the 25th of January, page 95, in a boy aged 2 years, as well as the Profession generally: and you will oblige a constant reader of your Journal. Mr. Parker performed the operation, assisted by Dr. J. C. Hall, Messrs. Porter, Booth, Gleadhall, and Totherby. There were no unfavourable symptoms after the operation, and the little patient is now quite recovered. The operation was performed under the influence of chloroform.

"Sheffield."

Stricture of the Urethra.

[To the Editor of the Medical Times.]

Sir,—Having seen by the medical journals that a great deal of controversy has arisen, respecting the treatment of permanent stricture of the urethra, I think in certain quarters a great deal of unnecessary twaddle has of late appeared.

The best method is this: the plain simple metallic bougie—not less than No. 7 for the first time; you hereby avoid all "lacunæ," and the chance of false passages being formed; the pressure being gently directed against the stricture for ten or fifteen minutes each time, not oftener than two or three times a week: patience, and not force, will overcome all. temperance being enjoined; then the bougies to be gradually increased in succession up to No. 12, twice or once a week; afterwards the full size once a month for six months or so, and then your patient is quite safe. Smaller bougies and elastic catgut, &c., I consider useless. By the above means ninety-nine cases out of every 100 will be cured. Yours, &c., Nemo.

*** As neither our Sheffield correspondent nor "Nemo" give their names, we have no more prominent place for their communications.

Juvenis.—The College of Physicians of London possesses jurisdiction in London, and seven miles round; having none other.

Many thanks for the "Leader" sent. Some hints from it may be useful; but being ourselves immediately responsible for our Leading Articles, our Reviews of Books, and Notices to Correspondents, we seldom accept foreign assistance in these departments of our journal.

Mr. Ribner's polite communication reached us too late to be made available.

M.D., &c.—We know nothing of the impudent varlet to whom our Correspondent alludes. We believe the extract from the "Medical Gazette and Times" to be a deception—at any rate there is no such journal; and it is not at all probable that the "Medical Gazette" and the "Medical Times" would express in the *same words* an opinion respecting the merits of any "recently discovered and extraordinarily successful treatment of extreme deafness." Our Correspondent's communication has been forwarded, as requested, to the "Gazette."

A Young Country Subscriber.—We are not aware that silica is a constituent of the human body.

Medical Directory.

[To the Editor of the Medical Times.]

Sir,—We again feel called upon to set ourselves right with your readers, upon a question raised in your current Number as to the possession of a University degree by Drs. Henry Bright, Henry Holland, Henry Herbert Southey, and Thomas Southwood Smith. This question we unhesitatingly, but erroneously, as it appears, answered in the negative, and we now appeal to the unbiased judgment of yourself and readers, whether we had not just grounds for our assumption. Annually, as is well known, we address a circular containing a series of unobjectionable interrogatories to every known practitioner in England and Wales. With but very few exceptions, these circulars are returned to us, affording the information required. All the *élite* of the Profession, in the foremost rank of which stand the distinguished men in question, invariably respond to our inquiry. We are sure these gentlemen will pardon us, then, if in our own justification we submit for your private inspection the returns of titles, qualifications, &c., written by themselves for insertion in the "Medical Directory." From these it will be seen that no mention whatever is made of the M.D., Edinburgh. By what right, therefore, could we append the M.D. to their names, even if we had been cognizant of their title to it, which we confess we were not, for we submit that it is not our province to search through lists for titles or qualifications which the bearers themselves take no account of, or perhaps prefer

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to withhold? There are gentlemen in the Profession who hold the Giessen diploma, and once paraded it, but who now repudiate the connexion. It would be rather hard upon them if we refused to allow the fact to pass into oblivion. But though we deny that it is our province to search out and append titles which are not included in the returned circular, it is our duty to test those which are sent to us. For instance, if A. B. declared himself M.D. Edin., we should consider it right, as gentlemen Editors, to appeal to the list for confirmation of the fact, and here ends our duty. Bright, Holland, Smith, and Southey are not such uncommon names as would justify us in giving the diploma or title to the gentlemen in question merely because their names are found in the Edinburgh list, and in the absence of any other information. Moreover, the list is not to be depended on, for the first-named gentleman is not inserted in the alphabetical lists, although we know that he possesses the diploma.

We repeat, that we have nothing to do with the Edinburgh or any other lists, further than to test the correctness of the qualifications forwarded to us by our correspondents.

We have ascertained that the gentlemen in question are all graduates of Edinburgh. Those of our subscribers, therefore, who attach any importance to the fact, will please to add to their names M.D. Edin.

We are, &c., THE EDITORS.

[We have seen the returns alluded to. They contain no reference to the University degree.—ED. M. T.]

[To the Editor of the Medical Times.]

SIR,—Having a case of psoriasis of the upper and lower extremities, of fifteen years' standing, under my care, in a young lady aged 21 years, in which I have succeeded in removing the itching and eruption, but have found every means unavailing for the removal of the cracked, rough, and dry skin, I shall feel obliged to any of your Correspondents who will recommend some treatment, through the medium of your Journal, which they in their practice have found the most efficacious, I am, &c.,

A COUNTRY PRACTITIONER.

*** We are well aware of the difficulties in the treatment of these cases, and we invite the attention of our Correspondents to the subject.

Kousso.

[To the Editor of the Medical Times.]

SIR,—Having received an importation of Kousso from Abyssinia, that has been very carefully collected and dried, I have much pleasure in stating, that the accounts received from medical men of its physiological effect, is more in unison with that produced on the natives, than any before met with in this country, inasmuch as it acts as a purgative, and expels the worm without the necessity of taking an aperient after it. I am now able to reduce the price of it one half, and from the arrangements I have made for the next collection, I shall be able to supply it at as reasonable a price as it can be obtained for to be relied upon.

Several samples have been sent to me from Aden and elsewhere, which have not been efficient in their action; probably this has arisen from its age, for Simper states "that, in Abyssinia, the plant is considered to have lost its anthelmintic powers in the third year after its collection."

I am, &c,

7, Pall-mall East, Feb. 5, 1851. WILLIAM HOOPER.

*** As regards Kousso, we find that Dr. Aubert, who resided some time in Abyssinia, described this drug with two other anthelmintics of equal value, —the Bisenna, a species of Conifera, resembling the Juniperus Virginiana of Linnæus; and the Abbatajege, very similar to the Iris Bulbocodium of Linnæus,—so far back as 1841. Our readers are referred to the "Bulletin de l'Academie," of March 15, 1844, and to the "British and Foreign Review," of July, of the same year.

Mr. Savory, of Bond-street, and Mr. Hooper, of Pall-mall, have favoured us with sundry doses of Kousso. We shall avail ourselves of their charitable gift, and administer the anthelmintic on the first occasion that may present, at the Metropolitan Free Hospital. Our readers will be informed of the result.

The report of an interview between the Committee of Poor-law Medical Officers and Lord John Russell, reached us after our Journal was made up for publication.

A General Practitioner.—The practice is different in different Courts. Some judges are not very particular, and are satisfied with oral evidence; others require the production of the ledger to prove the particulars of the debt. As these Courts are more allied to Courts of Equity than of Law, we do not believe that they require the evidence of servants to attest the actual delivery of the medicine. If the debtor dispute the debt, it is far better for a general practitioner to rely upon the advice of a solicitor than to trust to his own judgment.

R. T.—We observed the report in the newspapers. The circumstances exhibit in a strong light the imperative necessity for an alteration of the system of "Crowner's 'Quest Law." The system has been for centuries an anomaly and opprobrium to English jurisprudence.

[To the Editor of the Medical Times.]

SIR,—Will you inform me if a medical practitioner has any legal remedy against a patient, who, after engaging him to attend her in her confinement, without provocation or giving the slightest intimation, employs another, and for no other reason but the recommendation of a neighbour? and would the paltry excuse of losing his card, and not being able to find his residence, be allowed, when a previous secondary engagement could be proved?

I am, &c., C.

Dr. Baillie, was wont to say, a medical man must keep two pockets—one for his fees, the other for his affronts. For such affronts as those of which our Correspondent complains there is no *legal* remedy.

A Country Subscriber.—Forty-eight pages of Mr. Wardrop's work have been issued since its insertion was stopped in our Journal, and which may be obtained on application at our printing-office. As to when the work will be fully completed, our Correspondent must refer to Mr. Wardrop himself, with whom that matter entirely rests.

W. C., King's College.—We have not the means just now of answering the question, but our Correspondent may find what he requires by reference at Poole's Coffee-house.

The following PUBLICATIONS have been received:—

Letters on the Laws of Man's Nature and Development. By W. G. Rattinson, F.G.S., and Harriet Martineau. Pp. 390. London: John Chapman. 1851.

The London University Calendar for 1851. Pp. 161, and CLXXXIX. London: Richard and John Edward Taylor. 1851.

On the Action of the Muscular Coat of the Bronchial Tubes in Respiration. By C. Radcliffe Hall, M.D., lately Physician to the Bristol Hospital, &c. &c. &c. Pamphlet pp. 24. Worcester. 1850.

A Remarkable Effect of Cross-Breeding. By Alexander Harvey, M.D., Physician to the Aberdeen Royal Infirmary, &c. &c. &c. Pamphlet, pp. 20. Edinburgh: Blackwood and Sons. 1851.

Medicines: their Uses, and Mode of Administration; including a complete Conspectus of the three British Pharmacopœias; an account of all the new remedies; and an appendix of formulæ. By J. Moore Neligan, M.D., Physician to the Jewin-street Hospital, &c. &c. &c. Third Edition. Pp. 555. Dublin: Fannin and Co. 1851.

Pharmacopœia Nosocomii in Curam Morborum Cutaneorum Fundati. A.D. MDCCCXLI. Pp. 48. London: Highley. 1851.

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COMMUNICATIONS have been received from—

Mr. RUSSELL REYNOLDS, of Leeds; Dr. JOHN TAYLOR, of Huddersfield; Professor GUY, of King's College; Dr. ANDREW SMITH, of the Army Medical Department; Mr. BOWIE, of Coborn-terrace, Bow-road; Dr. RENTON, of Portobello; Dr. BOSANQUET, of Great Yarmouth; M.D., &c.; Dr. HARRISON; NEMO; EDITORS OF THE MEDICAL DIRECTORY; AN UNKNOWN BUT CONSTANT SUBSCRIBER; Mr. HOOPER, of Pall-mall; PETER PARLEY; A FELLOW OF THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY; Mr. BRAID, of Manchester; A COUNTRY PRACTITIONER; A YOUNG COUNTRY SUBSCRIBER; Mr. ADAMS, of St. Helen's-place; Mr. T. D. MARTIN, of St. Columb; Mr. DOWNEY, of Sileby; JUVENIS; Mr. RIDER.

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ORIGINAL LECTURES.

CLINICAL LECTURE ON SURGERY,

AT

GUY'S HOSPITAL.

By BRANSBY B. COOPER, Esq., F.R.S.,

Senior Surgeon to, and Lecturer on Surgery at, Guy's Hospital.

We have now, gentlemen, such a collection of interesting and instructive cases in our surgical clinical wards, that each of them alike would profitably repay our attentive consideration. But, in the selection of cases for to-day's lecture, I prefer adopting some arrangement, and confining my remarks to one subject, namely, Diseases of the Urinary Organs, more especially as regards retention of urine from stricture of the urethra. In pursuing this course, I hope I shall be enabled to lay before you such illustrations as will elucidate and clear up this somewhat difficult and complex subject, and leave you in no hesitation or doubt as to the treatment to be adopted. The first case I shall proceed with is one of

FISTULA IN PERINEO,

which, as regards its origin, is one of extremely rare occurrence; indeed, I do not know that I have ever seen a similar; for it appears, from the history of the case, to have resulted from an irritation of the bowel, producing in a weak and broken down constitution, an abscess in the perinæum, succeeded by fistulous ulceration through the neighbouring textures, and, amongst these, the urethra, whereas, I think I might fairly say, in ninety-nine cases out of a hundred, the history begins in the urethra, whether from stricture or otherwise; infiltration of urine leading to urinary abscess, followed by urinary fistula. With these preliminary observations, I will now read you his report.

"James Callaway, aged 25, admitted into Luke's ward Nov. 13th, 1850. Is a married man, with an extremely sallow, wasted, and sickly appearance, residing at Lambeth, and occupied as a labourer. States that he has been of regular and steady habits, and has generally enjoyed pretty good health until three years ago, when he had an attack of brain fever, arising from exposure to a hot sun whilst working on board a vessel. This laid him up for some time, and left him in a very weak condition, from which, he says, he has never thoroughly recovered. About last April, became affected with severe diarrhœa, which incapacitated him for work for seven weeks, and reduced him to an extremely emaciated and feeble condition. Whilst recovering and getting stronger, had a swelling form in the perinæum, about a fortnight after the cessation of his diarrhœa. This swelling gradually increased in size, became intensely sensitive and painful, and was accompanied with a great amount of constitutional disturbance. At the end of three weeks had it opened, when a large quantity of purulent matter, streaked with blood, escaped, and immediately relieved his concomitant constitutional symptoms. For two months afterwards, the abscess continued to discharge; but, ceasing for the following six weeks, he thought it was healing up. As, however, he was one day in the act of making water, his urine suddenly and unexpectedly passed through the opening which had previously existed in the perinæum, and had been made for the evacuation of the contents of the abscess. From that time up to the present moment, has always in micturating passed two streams, one through the penis, the other through the perinæum, each act of micturition being also attended with excruciating pain, and unable to be effected without having an effort or tendency to stool at the same time. Three weeks ago an abscess formed in his left lumbar region, deeply seated, and unattended with much pain and tenderness, but giving rise to an external or superficial swelling, which in a few days attained nearly the size of the fist, and in about the same space of time entirely subsided and disappeared; a discharge of a large quantity of pus taking place through the rectum. Since then he has found nothing of it, except pain and tenderness in the left lumbar region, and pain and weakness in the loins; so that, when he stoops or flexes his body on his thighs, it is with difficulty that he can raise himself again to the erect posture. He has observed no further discharge per rectum, and his bowels are comfortable and regular. In the centre of the perinæum—midway between the scrotum and anus—is a small aperture, the external opening of a fistula communicating both with the urethra and rectum; a probe passed into it comes in contact with a sound introduced into the bladder; but the probe cannot be passed into the rectum. He has never discharged feculent matter through the fistulous opening, yet has frequently a passage of gas through it, attended even with a slight noise, especially just previous to the act of voiding his fæces. His thoracic viscera are healthy, his breathing being natural, and the sounds of his heart normal; but his aspect indicates the existence of some important organic disease, inconsistent with the proper nutritive functions of his body, which indication is evinced to a demonstration, by the character of his urine—coagulable by heat and nitric acid, and therefore incontestably albuminous. He has, and has had, no swelling of the legs, or œdema of the body elsewhere. His appetite is pretty good, but he sleeps very indifferently.

This case, gentlemen, as I said in the prefatory remarks I made on introducing it to your attention, forms an exceedingly rare or peculiar instance as regards the origin of the disease. I have no doubt, from his history, that it began in the rectum; that extraneous matter, either gaseous or solid, escaped into the tissue surrounding this organ, and there acted as an irritant, setting up inflammation, followed by suppuration and the formation of an abscess. This, when opened, formed a suppurating sinus, which, from his weakened condition, and his low state of vital activity, extended itself by the process of ulceration through the neighbouring structures, and amongst these the urethral canal. The common, indeed the almost universal origin of urinary fistulæ, is stricture of the urethra, leading to slight extravasation of urine into the perinæum, followed by the formation of an abscess, and ultimately of a fistula. I may observe here, should you ever be in doubt about a perineal abscess; namely, whether urinary or not, you may at once satisfy yourselves by submitting the contents to chemical analysis; if urinary, the liquor puris evaporated to a small bulk, and treated with concentrated nitric acid—in a third or nearly equal proportions—will form flat, tabular, pearly crystals of nitrate of urea; if not in connexion with the urinary apparatus, it will give no such evidence. This test, which is simple and ready of application, was some time since suggested by myself, and I have in several instances employed it successfully as a diagnostic sign.

The indications for treatment in this case, are obviously to quiet his system, to improve his general health as much as possible, and afterwards to submit him to an operation, which I shall presently mention; for I do not believe that he will ever get well without an operation.

On Nov. 15th, I ordered him the following prescription:—℞ Tinct. ferri. sesqui-chlor. ♏xv.; inf. quassiæ ʒ iss. fiat haust. ter die sum. ℞ Tinct. opii ♏xv. ex mist. camph. ʒiss omni nocte sum.

Nov. 18th.—His report says that he can scarcely procure any sleep, from such a degree of irritation in his bladder, causing him to make water every hour or half hour; each act of micturition being at the same time attended with great pain, from the passage of urine through the fistula.

To have porter, and ʒvj. of wine a day.

Nov. 20.—Feels exceedingly weak and ill, has no appetite, and can obtain but little sleep. Directed to have a flexible catheter passed into his bladder, and allowed to re-

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main there, in order to avoid the irritation produced by the passage of urine through the fistula.

Nov. 21.—Removed the catheter himself this morning, as he could not bear it longer, from the great pain and suffering which it occasioned him.

Nov. 23.—Sleeps very badly; urine more albuminous. Ordered

℞ Morph. acet., gr. iss.; extr. coloc. co., gr. xx.; extr. hyosc., gr. xx.; camph., gr. xx.; misce ut fiant pilulæ xiv. quarum sumat j. bis die.

Nov. 25.—Complains of great weakness, and the same irritation and excruciating pain in passing water.

Nov. 27.—Is rather better; feels stronger and sleeps better; says that no water passes through the fistula, which is closed up externally; but, that it escapes from the urethra is proved by the smarting pain accompanying micturition, and by the formation of a swelling in the perinæum, to which he was directed to apply a poultice.

Nov. 29.—The fistula has re-opened, and the urine escapes from it as before; but he expresses himself as much stronger, and says that his appetite is better, and that he sleeps much better than he did.

Thus far, you observe, gentlemen, our patient's progress has been but very slow; he is, however, unquestionably better now than on his admission into the hospital. In his present weak state, I say, with his present symptoms, his pallid face, his emaciated appearance, his feeble pulse, his albuminous urine, it would be folly, indeed wrong, to attempt to operate; but, if he continue improving as he has done during the last few days, I hope his general health will soon be so far restored as to justify and indicate the performance of the operation, I anticipate, viz., cutting down and dividing the fibres of the sphincter ani muscle, and placing a catheter in his urethra, so as to remove the influence of muscular action, and, at the same time, to obviate the irritation produced by the passage of urine through the fistula. Even in cases where the fistula in perineo has had no connexion with the rectum, I have performed this operation, and performed it with success, and I believe this a case especially suitable for its application,—I mean, as far as the local condition of the parts are concerned. I do not think I can advantageously dwell longer on the diagnosis, prognosis, or treatment of this case without considerable digression from the point, I shall therefore proceed at once to the consideration of the subject of

RETENTION OF URINE FROM STRICTURE OF THE URETHRA,

And first draw your attention to the report of a case in which you have lately seen me perform the operation of paracentesis vesicæ per rectum.

Henry Leach, aged 24, admitted into Stephen ward Nov. 14th, 1850, with a traumatic stricture of the urethra; a strong healthy-looking young man, states himself to be steady and of regular habits, and says that he has never suffered from any other serious ailment than the one under consideration. When seven years old sustained an injury from which he has never since completely recovered. It occurred whilst playing with other boys in a baker's yard, from a sack of flour rolling down a ladder and falling upon him, forcibly bending his trunk upon his thighs, and in some way injuring his urethra. For the next two or three days, he suffered from retention of urine, and passed small quantities of blood; afterwards, however, his water began to flow, and he got pretty well; but never since the occurrence of this accident has he been able to micturate freely, the stream being small, and generally divided into two. When about fifteen years of age, caught a violent cold; after which, he became unable to pass his urine, and was obliged to have a catheter introduced; but since then, until nearly the present time, has derived but little inconvenience from his malady, except occasionally—as after a cold or any violent exertion—when he required the assistance of a catheter, or was a long time in endeavouring to make water. Five months ago received a kick from a horse in the left groin, which caused him to pass blood in his urine for the next three or four days; and says that he has ever since experienced a smarting or violent scalding pain in the neighbourhood of the bladder whilst making water,—indeed, to such a degree, as to make him dread and delay it as long as possible. During the last five months, also, he has frequently—sometimes even twice a week—required the introduction of a catheter, which has been occasionally effected with much difficulty. November 13, not having been able to make water for some time previously, applied for assistance to a surgeon, who, after much difficulty, effected the passage of a catheter, not, however, without a considerable discharge of blood. On getting home at night he twice afterwards passed water, but, being unable to do so the next day, applied to the hospital for relief. The attempts to pass a catheter proving unsuccessful, from the existence of false passages in his urethra, he was admitted and ordered to have a warm bath immediately, to be placed quietly in bed, to take pulv. opii gr. j., and to have xij. leeches applied to the perinæum.

5 p.m., Nov. 14.—Several ineffectual attempts being made to introduce a catheter, and the symptoms of retention being urgent, Mr. Cooper punctured the bladder per rectum, and drew off from two to three pints of urine.

Nov. 15.—Is quite comfortable and in no pain. His urine escapes through the canula, which is fixed with a bandage so as to remain in his bladder.

Nov. 16, 11 a.m.—Doing well. Has passed a little urine through his penis, which brought away a few small clots of blood that were lodged in the urethra.

9 p.m.—Has had a very severe rigor, which lasted a quarter of an hour, and complains of much tenderness over the abdomen. His bowels have not been relieved since the operation. Ordered pulv. opii gr. j.; hydr. chloridi gr. ij. st. s.

Nov. 17.—Has slept very little during the night. The canula has become a great source of irritation to him, and he complains of much tenesmus, with great pain and tenderness over the belly, to which he has a large poultice of linseed meal applied. Mr. Cooper passed a catheter into the bladder, per urethram, with but little difficulty, and directing it to remain there, and withdrew the canula from the rectum.

Nov. 18.—Much better, his symptoms having been considerably relieved by the removal of the canula; abdominal pain and tenderness much diminished; bowels have acted to-day for the first time since the operation.

Nov. 20.—Has no pain, and feels nothing whatever of the wound made through the rectum.

Nov. 22.—Progressing favourably.

Nov. 25.—Mr. Cooper has removed the catheter, and he passes water freely through his urethra.

Dec. 3.—Presented; cured.

This, gentlemen, is the character of the case, as I shall afterwards further point out to you, in which I consider the operation of paracentesis vesicæ per rectum, an exceedingly suitable one, and one in which, as you observe, it has turned out successful, although at one time his symptoms portended much danger, doubtless from the irritation produced by the presence of the canula, for they quickly subsided on the removal of this instrument, which in this case I could do without the apprehension of any evil consequences, as I had previously introduced a catheter per urethram; but had I not been able to effect this, it would have taken a much more serious aspect, and it remains a matter of deep consideration as to whether I should have been justified in removing the canula, which would in all probability have led to the extravasation of urine and the formation of pelvic abscesses.

The operation of puncturing per rectum is by some recommended as the most simple and least dangerous operation for the relief of retention of urine depending on stricture of the urethral canal, and is strongly advocated by one of my colleagues. But, gentlemen, although I believe it to be, in many instances, an exceedingly advantageous operation, yet, to employ it indiscriminately in every case would, I think, be highly prejudicial. And I shall, therefore, proceed to point out to you the views I entertain on the subject, distinguishing those cases in which I consider it ought, from those in which it ought not, to be had recourse to.

Surgeons admit three ways of performing the operation of paracentesis vesicæ; namely, puncturing above the pubes; puncturing through the rectum—or vagina in the female; and, lastly, cutting through the perinæum. Of these three, I shall exclude the first, as being, in my opinion, the most dangerous, the most liable to lead to the extravasation of urine, and the consequent formation of abscesses, and the most likely to be followed by injurious consequences, from the pressure of the canula on the coats of the posterior part of the bladder, when allowed to remain for some time, as is frequently requisite. If, then, this exclusion be just,—and, according to my experience, I hold it to

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be so,—it follows, that we have only a choice of one of two operations, and to one of these, a patient suffering under the distressing symptoms of retention of urine, with death inevitably staring him in the face, must submit to for his relief; and it should be the surgeon's object and consideration, not only to pass an instrument into the bladder, and evacuate its contents; not only to direct his attention to the time being, but to reflect, and select that operation likely to produce most permanent advantage. And this will entirely depend on the condition of the constricted parts giving rise to the retention. If the stricture have existed for a long time, —if the walls of the urethra have become thickened and cartilaginous, so as permanently to constrict and destroy the function of the canal,—if, indeed, from the circumstances of the case, you believe the stricture likely to persist, although the patient be, *pro tempore*, relieved of his retention,—I say, in such an instance, I recommend cutting through the perinæum. If, on the contrary, you have reason to believe, that, by alleviating his present symptoms, you may afterwards be able, by proper medical treatment, to overcome the stricture, then I advise the operation per rectum; so that your conduct must be guided by a consideration of the nature of the case you have to treat; and that operation which is adapted for the one, may, I hold, be highly prejudicial in the other. For I cannot agree with those surgeons who maintain, that if the source of irritation arising from the efforts at micturition be removed from the stricture, by substituting a new channel for the flow of the urine, that the amelioration of the obstruction will necessarily accrue; but, on the contrary, am inclined to believe, that the cartilaginous stricture, or, indeed, in any kind in which the stricture of the urethra is much altered, will, so soon as the flow of urine is made to pass through another course, begin at once to form a permanent obliteration of the canal; as we invariably find that, under all circumstances in which an organ is thrown out of its natural function, that it soon begins to undergo a deteriorating process, which renders it incompetent to be restored to its natural use. This doctrine does not, however, hold with respect to sporadic spasmodic stricture, and therefore the palliative treatment of puncturing the bladder per rectum may, in such case, be most usefully had recourse to.

The operation of paracentesis per rectum is an exceedingly simple one, but, on account of its simplicity, it is not, therefore, to be performed carelessly; for, if so, it might be followed by most serious consequences, if not loss of life. The most simple operation in surgery requires the exercise of care and judgment, and is never unattended with some amount of danger. In describing the operation, it will be necessary just to advert to, and bring to your recollection, the anatomical relation of the parts in the pelvic region. This, however, I have little doubt, has been so ably dealt with elsewhere, that it would be superfluous in me more than just to advert to it.

You are fully aware the most important organs contained within the male pelvis are the urinary bladder and rectum, and that these organs in different positions of the body bear different relations to each other. The posterior surface of the bladder is entirely covered by peritoneum, the continuation of the layer descending on the anterior wall of the abdomen, which, being prolonged to the posterior portion of the base or fundus of the bladder, is reflected backwards to the anterior part of the rectum, thus forming a *cul de sac*, known as the recto-vesical pouch. In front of this reflected membrane, the base of the bladder comes closely in contact with the rectum, being separated only by fibro-cellular tissue and recto-vesical fascia, a portion of the pelvic fascia which descends into the pelvis to retain its contained organs in place. The bladder here presents a triangular surface, corresponding in situation to the trigon in its interior, the apex of the triangle being directed forwards to the prostate gland, and its sides bounded by the vasa deferentia and vesiculæ seminales. It is in this triangular space that the trocar and canula should be introduced, and where, it will be seen, it can be employed with scarcely any danger of wounding the peritoneum; for, as the bladder becomes distended in retention, it carries with it the peritoneum, thus placing it almost out of the reach of the instrument, and there will be little fear of injuring the vasa deferentia or vesiculæ seminales, if the point of the trocar be kept in a direction towards the median line. Bearing these considerations in mind, place your patient on a table, with his pelvis well raised before you, and in the same position as that required for the operation of lithotomy; then, introducing the index finger of the left hand into the rectum, pass along it the canula, furnished with a "pilot plug," until it reach opposite the triangular space of the bladder, which I have just described to you; withdrawing the pilot, and depressing the canula, until it assume the direction of a line with the umbilicus, pass in the trocar, and force the two onwards into the bladder. The operation is attended with but little pain; indeed, as you saw in this patient, the chief pain was occasioned in endeavouring to introduce the canula without the "pilot plug," an addition to the instrument which is of great practical advantage; for, without it, the end of the canula seemed to catch in the mucous membrane, and to produce such contraction of the bowel as to prevent its onward progress; with it, however, no such difficulty existed, for its smooth, rounded extremity readily passed within the rectum, and piloted the way for the canula. To insure success in the operation, the chief circumstance to be attended to is, in thrusting the trocar and canula forwards, to keep the point well elevated or the handle depressed; otherwise, it may pass between the bladder and rectum, and, on withdrawing the trocar, the operator may be extremely mortified to find no fluid following it.

As an illustration of retention of urine, where I told you I deemed the operation of cutting through the perinæum as most advisable and beneficial, I may bring forward a case which lately occurred to myself in private practice, more especially as some of my dressers, whom I now see present, attended with me at the operation. The patient, a gentleman residing at the West-end, had been for a long time the subject of insuperable stricture of the urethra, which some years ago, as one of its frequent evil consequences, produced extravasation of urine into the surrounding tissue. This led to the formation of a perineal abscess, which, discharging itself according to the usual process of nature, namely, by ulceration through the structures between it and the exterior of the body, gave rise to a fistula in perineo, which existed until the time of my operating on him, and through which he voided all his urine, for nothing had passed from the bladder through his penis during the last seven years. The passage of urine through the fistula led to a great deal of irritation, and, extending to the mucous coat of the bladder, produced an increased secretion of mucus, which, being of a viscid character, passed away with much difficulty, and frequently caused retention of urine by blocking up or obstructing the fistulous canal. He had been three times operated on before I saw him, but neither time had the surgeon succeeded in passing an instrument into his bladder. When he consulted me, I promised only to relieve his retention of urine, by cutting through the perinæum into the bladder, and placing in a flexible tube of sufficient calibre to allow his urine freely to pass away. Accordingly, whilst under the influence of chloroform, administered by Dr. Snow, I placed him in the position for lithotomy, and, cutting down to the urethra, behind the scrotum, I divided the tissue which had, from the effects of the stricture and the previous operations, become so dense and hard as to be more like gristle than flesh. I passed an elastic tube into the bladder, as was proved by the urine immediately escaping through it. So far, I had effected all I promised, and had placed him in a much better condition than if I had punctured his bladder per rectum; for, in this latter operation, to have allowed the canula to remain would have, doubtless, occasioned so much irritation and general disturbance as not long to be borne; and merely temporary relief, in such a case as the present, would have been of but little avail. Now, I could allow the tube to remain without the apprehension of any serious concomitant symptoms being produced by its presence. Not content, however, with this mere palliative mode of procedure, I determined to endeavour to relieve his stricture, and, at the same time, cure his fistula. I therefore passed a sound along the urethra as far as it would go, and, with much difficulty, from the extremely dense and almost cartilaginous condition of the parts, cut up to it, through the stricture, from my former incision. I could now pass a catheter into the bladder per urethram, and, on injecting water through it, it returned through the tube that I had previously introduced,—a sufficient demonstration that both were effectually within the bladder, in which condition I fixed them by means of appropriate strapping and bandaging. He sustained comparatively but little hæmorrhage, and was insensible to pain during the whole operation. Afterwards

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I had him placed in bed, enjoined perfect quietude, and administered a good dose of the liq. opii sed. During the next two days he went on without a bad symptom, and expressed himself as quite well compared with the agony he before had to endure. On the third day, however, all was not quite so prosperous, for he was attacked with severe rigors, followed by much febrile disturbance. I gave him large doses of opium and salines, and, since then, he has been progressing as favourably as I could wish.

Before I quit the subject I will relate another case, very similar to the last, in which I also operated effectually, and, although it also occurred in private practice it is not on that account less relevant to our present consideration.

Mr. F., a native of Barbadoes, had been the subject of tricture of the urethra for fourteen years, for the last five of which he had not passed a drop of urine through the natural passage, but it passed through fistulous openings in the perinæum, and partly through the rectum. Upon examination, I found the perinæum and scrotum much enlarged, indurated, and perforated by three or four fistulous openings, through which, as well as through the rectum, the water dribbled. On attempting to pass an instrument, I found the urethra perfectly impervious, the obstruction commencing about three inches from the orifice, and the obstruction resisted every attempt to pass an instrument through it. I therefore explained to the patient the necessity for an operation, for the purpose of establishing a permanent cure. The patient consenting to the operation, it was peformed in the following manner, in the presence of Dr. Young, who had previously attended him. The patient was placed in the position for lithotomy; an incision was made into the perinæum, commencing at the fistulous opening in the scrotum and extending in the course of the raphe almost to the anus, and completely laying open the perinæum. I now endeavoured to force a catheter through the stricture, but, as I could not succeed, I proceeded to open the membranous portion of the urethra. I was then able to pass a female catheter into the bladder, and to draw off the urine; having done thus much, I determined upon making another attempt to overcome the obstruction in the urethra. I effected this by passing a sound into the urethra; then, directing the knife upwards from the perinæum, I cut through the substance which intervened between the point of the sound and the knife; with slight pressure, the sound now passed onwards, and, when the female catheter was withdrawn, entered the bladder. A silver catheter was substituted for the sound, and secured properly to prevent it from slipping out of the bladder.

The patient was put to bed when the operation was completed. He remained quite composed and comfortable until the evening, when a rigor seized him, a clot of blood with some urine passed from the bladder, and he became again tranquil and passed a good night.

No bad symptom occurred after this period; the progress of the patient towards recovery was steady; the urine soon ceased to pass through the perineal opening, which healed readily; the scrotum regained its normal size and condition, and the operation proved successful in every respect.

LECTURES ON HISTOLOGY.

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS, LONDON.

By J. T. QUEKETT, Esq.,

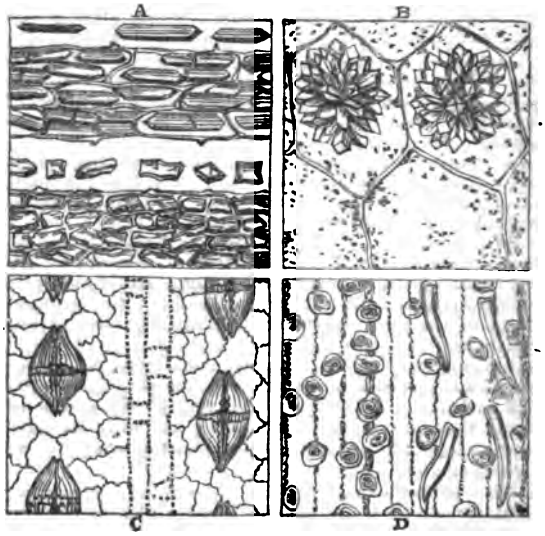
Assistant-Conservator of the Hunterian Museum.

[Continued from page 115.]

RAPHIDES.

Raphides of oxalate of lime are found in very great abundance in the medicinal rhubarb, as shown in *Fig.* 11, C, the best specimens from Turkey containing as much as 35 per cent. of them, those from the East Indies 25 per cent., and the English, or that sold in the streets by men dressed up as Turks, 10 per cent. Buyers of this drug usually judge of its quality by its grittiness, that is, by the quantity of raphides it contains, and this is a curious fact, as the crystalline matter cannot be of any beneficial importance in the action of the medicine, for the tincture in which no raphides are present is as efficacious as the powder. Some plants, as many of the Cactus tribe, are made up almost entirely of raphides; in some instances every cell of the cuticle, as shown in *Fig.* 11, B, contains a stellate mass of crystals, in others, the whole interior is full of them, rendering the plant so exceedingly brittle, that the least touch will occasion a fracture, so much so, that some specimens of Cactus senilis, said to be 1000 years old, which were a few years since sent to Kew Gardens from South America, were obliged to be packed in cotton, with all the care of the most delicate jewellery, to preserve them during the transport. Raphides of peculiar figure are common in the bark of many trees. In this specimen, from the hiccory, *Carya Alba*, you may observe masses of flattened prisms, having both extremities pointed; similar crystals are present in the bark of the lime tree, and in *Fig.* 13, A, you may notice them *in situ*; they occur in rows, their pointed extremities nearly touching each other, their principal situation being in the cellular tissue, close to the medullary rays. Other forms of crystals, as the rhombohedron, and a small stellate form, as shown in *Fig.* 11, D, are also found in the bark of the lime. In this specimen, which is a vertical section of the stem of Elæagnus, represented in *Fig.* 12, C, there are in the pith numerous prismatic raphides of large size. Raphides are also found in the bark of the apple tree, as shown in *Fig.* 13, E, and in the testa of the seeds of the elm, as shown in *Fig.* 12, D; each cell contains two or more very minute crystals.

Fig. 13.



It is at present not known what office raphides perform in the economy of the plant. Some have gone so far as to state that they are deposits to be applied towards the mineral part or skeleton of the plant, but the fact of their being insoluble in vegetable acids would prove this view of their use to be erroneous. The more rational supposition is, that they are accidental deposits, formed by the action of vegetable acids upon lime or other base, existing in the plant or taken up from the soil. They may, however, be formed artificially, and my late brother succeeded in doing so in the following manner:—If oxalic or phosphoric acid be added to lime-water, the precipitate will be pulverulent and opaque. If, however, a vessel containing oxalate of ammonia in solution be connected, by means of a few filaments of cotton, with another vessel containing lime-water; crystals will be formed at the end of the fibres in contact with the lime-water. This led him to attempt to form them in the interior of cells. He selected for the purpose a portion of rice-paper; this substance was placed in lime-water under an air-pump, in order to fill the cells with the fluid. The paper was then dried, and the process again and again repeated, until many of the cells were charged with lime-water. Portions of the paper were then placed in weak solutions both of oxalic and phosphoric acid, and at the end of three days crystals were found in the cells in both instances, those in the oxalic acid being of the stellate form,

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bu those in the phosphoric rhombohedral. None of the acicular, however, were ever present, although the process was continued for ten days. One of these pieces of rice-paper I now shew you, and a stellate mass of crystals is very plainly to be seen in two of the cells occupying the centre of the field. Each, as shown in *Fig.* 13, B, precisely resembles the raphides found in rhubarb.

Raphides are sometimes found in the fossil state. In this specimen, which is a section of a fossil palm from Saugur, in the Deccan, a stellate mass, evidently of a crystalline nature, occupies nearly the whole of one of the larger cells.

Besides the raphides, there is another and more insoluble inorganic material met with abundantly in certain orders of plants, viz., *Silica*; but this is not crystalline, nor is it contained in the interior of cells, as are the raphides, but is diffused generally throughout the structures in which it occurs, and this connexion is so intimate and equable, that it forms a complete skeleton of the tissues after the soft vegetable matters have been destroyed; in fact, the part it plays with reference to the organized tissues in which it is deposited is precisely analogous to that existing between the animal and earthy elements of bone. Silica exists in such great abundance in the cuticle of a plant known as Equisetum Hyemale, or Dutch rush, that on this account the stems are largely employed by carvers in wood and modellers in clay as a substitute for sand-paper. When the stems are rubbed together, as you may have an opportunity of doing in the specimens I send round, a grating noise will be heard, as if they were composed of glass. In the Graminaceæ, especially the canes, silica is also very abundant, but it is by no means limited to this order of plants. It is contained principally in the cuticle and the various structures that are developed from it, such as hairs, spines, &c. &c., but in some instances layers of cells lying much deeper than those of the cuticle also abound in silica, and I shall presently show you that it may be met with in woody fibre and in spiral vessels.

In certain of the canes, as the bamboo, silica is sometimes met with in large solid masses in the interior of the joints; it is this material which has received the name of "tabasheer," specimens of which, by the kindness of Dr. Pereira, I am enabled to show you. It would appear in this case that the silica ought to be viewed in the light of a secretion, as it is poured out in a liquid state into the cavity of the bamboo, and I have a specimen in which a spiral vessel lying in the cavity of the joint has been entirely surrounded by the tabasheer.

It is generally known that after the burning of haystacks, masses of irregularly-shaped, but perfectly formed glass, such as I now show you, are always to be found among the ashes; these result from the fusion of the silica contained in the cuticle of the hay, and its combination with the potash of the vegetable tissue, by which a silicate of that base (or glass) is formed.

In this specimen, a portion of the bark of a tree from Ceylon, the name of which I have never been able to ascertain the supply of silica is so abundant as to lead to its being used in the manufacture of pottery.

In order to display effectually the siliceous matter in plants, of which I am now speaking, it is necessary to expose the tissue required to be examined to the flame of a blow pipe, or better still to boil it for some days in nitric acid. By these means the organic portion is entirely destroyed, and the silica alone, withstanding these destructive agents, remains a perfect model or cast of the original tissue.

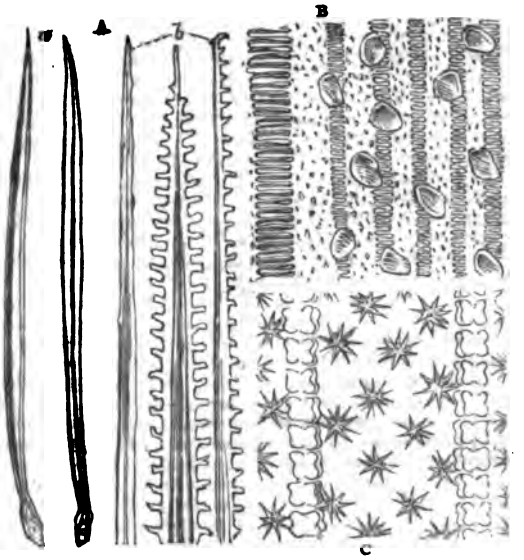
I now show you a portion of the stem of *Equisetum hyemale* which has been boiled and macerated in nitric acid for a considerable period; it is a perfect mass of pure silica, and, as represented in *Fig.* 13, C, not only are the cells of the cuticle shown, but even a considerable amount of the detail of the stomata, as evidenced by the rows of small oval bodies with serrated margins. In this portion of a leaf of the bamboo, which in one part has been perfectly and in another imperfectly decarbonised, you will see a perfect model or cast in silica of the original specimen; the more perfect the decarbonisation the whiter the silica. On the surface of the leaf, as shown in *Fig.* 13, D, even the hairs are plainly exhibited. In this portion of the husk of a grain of wheat, as shown in *Fig.* 14, B, you will have an opportunity of seeing not only the cells of the cuticle and layers of cells beneath, but a spiral vessel the fibre of which is also siliceous.

I here show you small portions of many varieties of cane; the smooth, glassy outer surface which most of them present is entirely due to silica; if a thin slice of the cuticle be removed and exposed to the flame of a blowpipe or to the action of nitric acid, you will then have, as shown in *Fig.* 15, A, from the Manilla cane, every cell of the cuticle beautifully defined.

Of all the grasses used as food by man, rice contains the largest proportion of silica. In this object which I now send round, a portion of the husk of a rice grain, boiled for a long time in nitric acid, you will see how large an amount of hard material is contained in it. We are therefore less surprised to find, as in this skull of a Malay, from the Museum, how completely the teeth of those races of men who live almost entirely on raw rice are worn down to smooth flat surfaces, a fact that at once enables us to distinguish between a vegetable and animal feeder.

In the rice we have also woody fibres coated with silica. You will notice in this specimen that woody fibres are abundant, some of them, as shown at *b*, in *Fig.* 14, A, presenting peculiar serrated margins somewhat like those in the fibres of the crystalline lens of the eye of the cod-fish.

Fig. 14.

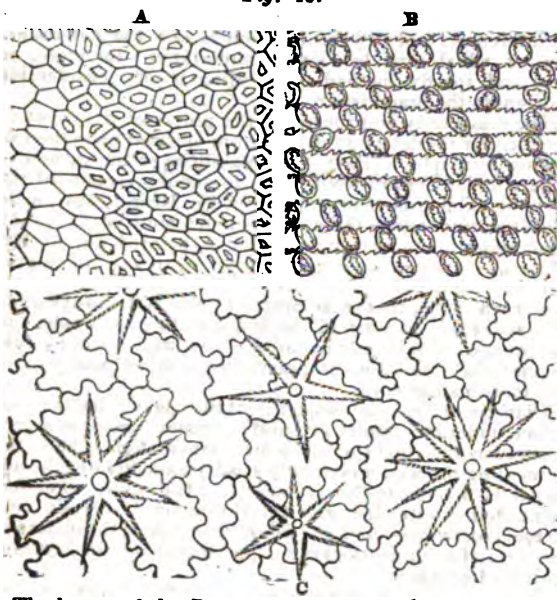


As I have already said, the modifications of the epidermic cells of plants partake largely of the siliceous deposit, and this is particularly the case with the hairs or setæ which stud the surface of the husk of the oat, wheat, &c.; and I may here refer to a very interesting pathological circumstance in connexion with these minute and seemingly insignificant hairs. The occurrence of intestinal concretions of anomalous character, and of no ordinary size, was at one time far from uncommon in this country, especially in the north of England and in Scotland, and many specimens of such, taken from the Museum, are now before you. Some of them, as you may see, are of considerable bulk. One of these was brought to this College many years since, that its nature and the *rationale* of its formation might be ascertained. Mr. Clift, our late respected Conservator, suggested that it might be in some way connected with the husks of the oak, which, in the form of oatmeal, constitute a very staple article of consumption among our northern countrymen; but it remained for the microscope to confirm and complete the explanation, and Dr. Wollaston proved thereby the identity of the elements of these calculi, with the hairs or setæ from the palea of a recent oat. Some of these hairs are shown at *a*, in *Fig.* 14, A. The same result is apt to follow the accumulation of the hairs of the wheat husks, when brown bread is extensively used as an article of diet.

There is one grass remarkable for the way in which the silica is arranged, which I must now show you; it is *pharus cristatus*, an exotic species. In this specimen (represented in *Fig.* 14, C) there are rows of small masses of silica, somewhat like an hour-glass in shape. There are two sets of them, arranged one above the other; of their nature I can offer no satisfactory opinion, from having never seen any specimen of the grass in its natural state. There are also stellate masses

like raphides occurring in other parts. One of the common meadow grasses, *Festuca pratensis*, here also requires notice. In the paleæ, cups of silica, as they have been termed by the Rev. J. B. Reade, are very abundant. In the specimen represented in *Fig.* 15, B, which is one of the paleæ in the natural state, you may see longitudinal rows of these cups; the hairs also on the edges are exceedingly sharp, and abound in silica.

Fig. 15.



The leaves of the *Deutzia Scabra* are remarkable for the development of certain stellate hairs from the cuticle of both their upper and under surface. This first specimen shows those on the upper surface in their natural state. The next is from the under surface of the same leaf, and has been boiled in nitric acid. In it, as shown in *Fig.* 15, C, you have a beautiful view of these truly elegant hairs. This cuticle, in common with all the other examples already shown, will exhibit a beautiful series of colours under polarized light.

Before leaving this subject, I must exhibit the cuticle of the petal of a mallow, in nearly all the cells of which you may see stellate masses of calcareous matter, which resemble raphides more than any other structures.

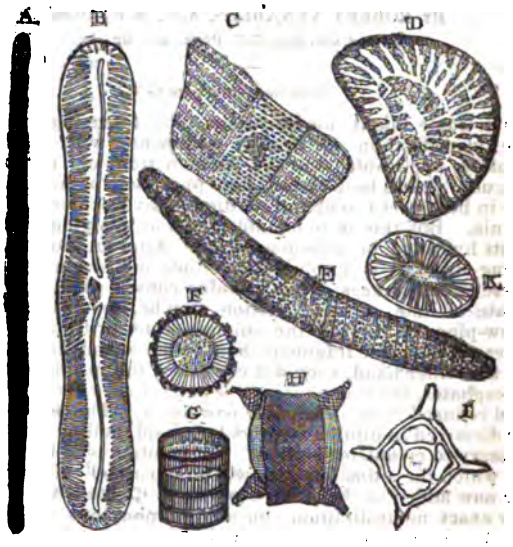
Infusoria.—Whilst speaking of silica in plants, it will be well to make mention of the great abundance of this material found in the beds of our ponds, streams, and rivers, and in the waters of the ocean: these are the accumulated remains of countless myriads of organized beings,—whether animal or vegetable is still a matter of contention between the botanist and zoologist; the former classing them among the Algæ, the latter styling them Infusoria.

According to botanists, the Algæ are divided into five natural orders; viz., Diatomaceæ, Confervaceæ, Fucaceæ, Ceramiaceæ, and Characeæ. Of these the Diatomaceæ are characterised as angular fragmentary bodies, brittle, and multiplying by spontaneous separation. This order is divided into three genera—Cymbelleæ, Hydrolineæ, and Desmidieæ; the two former have a siliceous skeleton, and the last a horny one. All are remarkable for the extreme beauty of their shapes, and of the markings on their surfaces, which are so delicate in many cases, as not only to be employed as a test of the defining power of a microscope, but, in some instances, their minuteness is such as even to defy the highest powers now made to render them visible.

The Diatomaceæ inhabit both salt and fresh water; the Desmidieæ, fresh water only: these last have lately been classified and arranged by a member of our Profession, Mr. John Ralfs, and in his splendid work you will find all that relates to their structure and mode of development. If the Diatomaceæ be animal, the Desmidieæ are vegetable, Mr. Ralfs having detected in them the presence of starch.

In the first specimen which I show you, you will see a great number of desmidieæ, all having a brown horny skeleton; and the next will be an example of one of the numerous species of diatomaceæ, *Isthmia obliquata*, which is found living on our coasts, and is remarkable for the elegance of its shape and markings. You will notice that the specimens are attached to a small portion of sea-weed; a single shell is represented by C in *Fig.* 16. The isthmia, although possessing a siliceous covering, is claimed by the botanists, and the first figures of it were given in Sowerby's "British Botany." Many of the diatomaceæ, on account of their silica, are not only employed largely in the arts, as a material for polishing metal and other hard structures, but, in the form I now show you, viz., as a light, white powder, like magnesia, are said to be used as an article of food, being known in Germany as the *berg-mehl*, or mountain-meal. In the specimen which I now send round, you will find it consists principally of the remains of naviculæ, two of which are shown by A, B, in *Fig.* 16.

Fig. 16.



In certain parts of the world, as in Germany, and especially in America, there are strata of infusorial remains many miles in extent. The city of Richmond, in Virginia, is built upon a stratum eighteen feet deep and upwards of thirty miles in length. Here is a portion of this stratum, and under the microscope you will see that it contains little else than well-marked infusorial remains, some of which are shown by E F G H I K, in *Fig.* 16.

These minute creatures once lived in the water, from which they had the power of separating the silica, in the same manner as their representatives of the present day—as one generation died off, it was replaced by another; and so, in process of time, was a stratum formed.

In Bohemia there is an infusorial earth termed *kieselguhr*, which is remarkable for containing peculiar shield-shaped discs, termed by Ehrenberg *Campylodiscus clypeus;* one of these is represented by D in *Fig.* 16.

On the shores of South America, and in many islands of the Pacific, sea-birds, principally penguins, resort and deposit their excrement; in the lapse of ages this has accumulated so as to form masses of enormous extent and depth; and thousands of tons have been brought to this country as a manure, under the name of guano; it consists of a mixture of flesh, bones, and sand, together with various salts of potash, lime, and ammonia. When examined microscopically, a great abundance of beautiful siliceous skeletons are found amongst it; and, curiously enough, the best samples of guano contain the greatest number of these remains; they were first detected by my late brother in 1845. In the specimen I send round, you will see some of the most characteristic forms of infusoria, most of which, you will notice, are of a circular figure, and many of them are of a blue colour; they are the siliceous shells of animalcules once inhabiting the depths of the ocean, and belong principally to three genera, viz., *Actinocyclus*, *Gallionella*, and *Coxinodiscus*. Now, when we consider the vast amount of silica that must be removed from the soil with the straw of wheat, barley, oats, &c. &c., it must be evident that a

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supply of it needs to be restored to the soil in order to insure good crops; hence, it follows that the value of good guano as a manure may depend, not entirely upon its ammonia, lime, and potash, but in a certain degree also upon the silica which it contains.

ORIGINAL COMMUNICATIONS.

EXPLANATORY OBSERVATIONS

FOR A MORE SPEEDY COLLECTION AND ADJUSTMENT OF URINARY SEDIMENTS—SPONTANEOUS AND ARTIFICIAL.—FOR MICROSCOPICAL EXAMINATION, AND FOR THEIR MORE PROMPT AND IMMEDIATE DIAGNOSIS.

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Incept. Cand. Roy. Coll. Phys., &c., &c., &c.

(Continued from page 89.)

With some slight modifications, the foregoing plan for the identification of urinary sediments will be found equally applicable to the examination of phosphatic calculi. It has been stated, that phosphate of lime is soluble in both acetic acid and solution of hydrochlorate of ammonia. But this is to be understood as applying to it only in its hydrated or gelatinous state. After ignition, or after being dried, it is insoluble in either menstruum. Under these circumstances, if the calculus consist wholly of phosphate of lime, a small portion may be ignited before the blow-pipe, to destroy the animal matter with which it is intermixed. The fragment should then be pulverised. But on the other hand, should it consist of the fusible or mixed phosphates, the fragment is to be pulverised without ignition and reduced to an impalpable powder.(a) The powder is to be dissolved in diluted hydrochloric acid, adding acid if necessary to complete solution. The solution is to be filtered, by which the animal matter will be separated. If ammonia be now added to the filtered solution, in quantity sufficient for exact neutralisation, the double phosphate will be precipitated, and may be recognised by its microscopic characters; but the phosphate of lime will be held in solution by the hydrochlorate of ammonia formed. If a solution of oxalic acid or of oxalate of ammonia be added to the phosphate of lime held in solution by the hydrochlorate of ammonia, and freed from the prismatic crystals by filtration, octohedres of oxalate of lime will separate, and may be readily recognised under the microscope. Where very great haste is required, all the characteristic phenomena may be evolved and made manifest by treating a single drop of either solution upon the slide with a drop of the appropriate test or re-agent, and, after a few seconds, placing the object under the microscope.

It is hardly necessary to say that these methods are equally applicable, not only to the sediments spontaneously deposited, but also to those artificially precipitated from urine by re-agents. If, for instance, to a small portion of clear or transparent urine in a test-tube any re-agent be added—oxalic acid, for instance, or sesqui-carbonate of ammonia(b)—and the tube corked and inverted, after a few seconds a sufficient quantity of the precipitated matter will be found adhering to the cork, and may be transferred to a slide and examined under the microscope.

We often meet with urine of considerable density, the specific gravity ranging between 1·025 and 1·030, and above this even. If the quantity voided under these circumstances be normal, but still more if it exceed this; the density in such cases generally denotes either excess of urea, or the presence of sugar. In a practical point of view, it is of the utmost importance that the question as to the presence of sugar be unequivocally decided.

Nor is the presence of sugar incompatible with low specific gravity, and the urine less even in quantity than the ordinary standard of health. I have repeatedly found sugar in the urine when the specific gravity did not exceed 1·015, and the quantity voided in twenty-four hours between thirty and forty ounces by measure.

In my lectures, published in 1838-39,(c) I have noticed two cases that occurred to me in which there was a large quantity of sugar, although the quantity of urine in the twenty-four hours did not exceed the average of health. The specific gravity, however, in these cases was high—1·030, 1·035.

But, as already observed, sugar is often present in urine, neither the density nor quantity of which would lead to such an inference; and still the question is one, the determination of which may be of vital importance; therefore, an easy and speedy method of deciding is of considerable moment to the practitioner.

The most ready and speedy of the processes at present in practice for the detection of sugar are founded upon the following principles:—First, the capabilities of the carbon of sugar, under certain conditions, to reduce certain of the metallic oxides, as of copper, silver, &c. Grape sugar, as in diabetic urine, exerts these powers much more speedily than cane sugar. Liquor potassæ also, as pointed out by Mr. Moore, exerts certain agencies upon sugar, and which provide us with a tolerably ready means. Still it has been represented to me, that these processes are not always quite so manageable, at least in the hands of those not expert in the practice of such manipulations. To such, then, I would suggest the following, as practically perhaps more simple and more manageable.

Diabetic urine, in consequence of the sugar it holds in solution, undergoes, under favourable circumstances, in a very short time the vinous or alcoholic fermentation. This, the fermenting process, is generally greatly expedited by the addition of a *ferment*—for instance, a little yeast. The fermentation is attended with the formation of certain *confervoid vegetations—torulæ*—which collect upon the surface in the form of a whitish-looking scum, appearing like fine flour sprinkled over it.

To develope these phenomena, a quantity of urine should be poured into a shallow basin or evaporating dish,—a common saucer, if there be nothing else at hand, will answer the purpose very well,—so as to present an extended surface. The temperature should be raised to 75 deg. or 78 deg. Fahr. A small quantity—a few grains—of German yeast is to be mixed in and well diffused by stirring with a glass rod or piece of wood. The whole is then to be set aside in a place the temperature of which should be about 75 deg. Fahr. Where this is inconvenient the temperature may be kept up by floating the dish in another containing a large quantity of water heated from about 85 deg. to 90 deg. Fahr., and the whole set aside. In a very short time—sometimes only a few minutes—provided sugar be present, an intestine motion commences, bubbles of gas rise to the surface, and the fermentation has commenced. A whitish-looking scum soon appears, spread, like a film, over the surface. If a little of this scum be removed by a camel-hair brush, or a feather, or by touching the surface with the end of a cork, a sufficiency may be transferred to one of the slides. Examined under the microscope, it will be found to consist of a number of minute vesicles of a somewhat oval form. As the decomposition proceeds, these vesicles elongate, forming a sort of stem, from which others sprout laterally, and indeed in all directions. The first stage may be observed in about a quarter of an hour, often in a much less space of time; but in an hour or two the vegetative process is complete, and torulæ may be seen, in all stages of their growth, under the microscope. If the process be conducted in a bottle, the intestine motion may be observed in a very few seconds; and, if the bottle be corked, the cork being removed from time to time, the escape of pent up gas, on removing the cork, will indicate the evolution of carbonic acid, and a portion of the scum taken from the surface will prove the development of torulæ.

The development of torulæ, and the generation of carbonic acid, not only indicate each the presence of sugar, but the two confirm each other. It is evident, however, that they show the existence of sugar, but lead to no inference whatever as to the quantity of this principle.

According to Dr. Bence Jones, quantity is matter of no moment. He observes:—"But the most important point with the medical man is the determination of the presence of sugar, and not the quantity in which it exists. The proof

(a) Ignition, when the phosphate contains ammonia, would be attended with the dissipation of this principle.

(b) See *Medical Times*, 4th December, 1847, and 4th May, 1848, and Elements of Urinary Analysis, pp. 58, 59.

(c) *Medical Gazette.*

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of the existence of sugar in the urine is of primary importance; the question of how much sugar is comparatively of very little consequence. Hence the tests for the sugar in the urine are of far more value than the methods of making quantitative analyses of it."(a)

For ordinary therapeutical purposes, there can be no doubt that the question of chief importance is the presence or not of sugar; and at an early period, when the quantity is very small, its presence only occasional, and the derangements of system, digestion, &c., in a corresponding degree limited, the question of quantity is certainly of much less moment. But when disease has advanced, and the health become in a corresponding degree deranged, quantity as considerably influencing our prognosis, and the activity and assiduity of our means becomes of paramount importance.

It has been already stated, that the production of torulæ is attended with a process—vinous fermentation—accompanied with the generation and extrication of carbonic acid gas. This gas, or at least its cubic volume, is a sort of equivalent or index of the quantity of sugar pre-existing in the fermented liquid. To determine the amount of sugar, then, we must so conduct the fermentative process as to be able to measure the cubic volume of gas disengaged, as each cubic inch of gas is equivalent to, or indicates, one grain of sugar.(b) An easy method, therefore, of determining the volume of carbonic acid is a desideratum.

For this purpose we introduce a known quantity of the urine for analysis into a flask fitted with a cork perforated by a conducting tube. On setting it to ferment, the carbonic acid, as it is disengaged, may be conducted into some medium capable of absorbing and fixing the gas. If, for instance, it be conducted into an alcoholic solution of potass, carbonate of potass will be formed, which, being insoluble in alcohol,(c) will be precipitated. Or, if the alcoholic solution be mixed with water, the water will quit the alcohol and dissolve the carbonate of potass. The watery solution of the carbonate of potass, if left at rest, will occupy the lower part, while the alcohol will float on the surface, thus forming two distinct strata of fluids.

Carbonic acid is also powerfully attracted by the alkaline earths; thus lime-water and barytic-water attract carbonic acid even from the atmosphere, and become muddy or turbid; the carbonates of these earths being insoluble in water, consequently precipitate. Now, we have in these phenomena sufficient to enable us to estimate the amount of sugar in any given quantity of urine. We proceed as follows:—

The urine for examination having been previously boiled (d) for a few minutes, a portion—1000 grains for instance—is then introduced into the fermenting flask, fitted with a conducting tube. The temperature should be raised to 75 deg. Fahr., and then a small quantity of German yeast should be mixed in a test-tube with distilled water, at the temperature of 75 deg. Fahr., through a tube passing through the cork into the fluid in the flask. The conducting tube should pass through a cork into a bottle containing solution of caustic baryta, into which it should dip. The whole should be air-tight, so as to prevent the possibility of any gas escaping. Almost immediately fermentation, if sugar be present, commences, and gas soon begins to pass into the barytic water, which becomes turbid, from the formation and diffusion of insoluble carbonate of baryta. Towards the end of the process, when fermentation has ceased, the whole of the carbonic acid may be forced from the fermenting flask into the barytic water by applying the flame of the spirit-lamp to the flask.

The carbonate of baryta formed is to be allowed to subside; the barytic water is to be decanted off, and the carbonate washed by agitation with distilled water, in a tube or bottle, till all trace of alkaline reaction has been removed.

There then remain two modes of proceeding, the carbonate may be dissolved in nitric acid, and the nitrate decomposed by solution of sulphate of soda; or the carbonate may be at once decomposed by adding excess of sulphuric acid diluted with four or five parts of distilled water. If it be wished to collect the carbonic acid disengaged from the carbonate of baryta, the immediate or direct conversion into sulphate by sulphuric acid is the best. The sulphuric acid being mixed suddenly with the water, sufficient heat will be extricated to drive over all the carbonic acid, without any assistance from the spirit lamp, and the acid gas may be collected in the usual way.

The sulphate of baryta, however formed, is to be collected, ignited, and weighed. From the weight of the sulphate we can determine that of the carbonic acid generated during the fermentation, and, consequently, its volume. Perhaps this will be better understood from the following example and the preliminary details:—

The equivalent or combining proportion of barium—omitting decimals—is represented by the number 68; that of oxygen by 8. Consequently, an equivalent of baryta, or oxide of barium, will be represented by 76. The equivalent of sulphuric acid is 40, and an equivalent of sulphate of baryta will be 76 + 40 = 116. Again, carbonic acid consists of one of carbon 6, and two of oxygen 16, and is represented by 22; therefore, an equivalent carbonate of baryta will be 98. Now, the baryta being constant, the acids may be considered counterpoises or complementary of each other. Thus, to convert 98 parts, by weight, of carbonate of baryta into sulphate, I must add exactly 40 of sulphuric acid, neither more nor less; if I add more I waste the sulphuric acid; if less, I do not decompose the whole of the carbonate. Thus, the 98 of carbonate, and 40 of sulphuric acid, will give me 116 of sulphate of baryta and 22 of carbonic acid gas.

To apply these principles, a thousand grains of urine, specific gravity 1012·08, having been mixed with yeast, as already noticed, fermentation commenced, and the gaseous product was conducted into solution of baryta. The resulting carbonate was well washed in distilled water, and, having been decomposed by excess of sulphuric acid, the resulting sulphate, after being ignited, was found to weigh 8·03 grains. To determine the weight of the sulphuric acid in the 8 grains—for we shall omit the decimals—we have only to apply the rule of simple proportion, thus:—

116 : 40 :: 8 : 2·76, the weight of the sulphuric acid in grains. The next question to be determined is, the amount of carbonic acid equivalent to 2·76 of sulphuric acid, and which we ascertain thus,—40 : 22 :: 2·76 : 1·52 nearly; consequently, about a grain and a half of carbonic acid must have been disengaged by the sulphuric acid from the carbonate, and the product resulting from the fermentation of the sugar pre-existing in the urine. As we calculate the amount of sugar from the volume of carbonic acid gas generated during fermentation, we must ascertain what would be the volume of 1·52 of a grain.

The specific gravity of carbonic acid, compared with air taken as unity or 1000, is 1·524 or 1·527,(a) therefore 100 cubic inches will weigh 47·377, or, in round numbers, 47 grains; then 47 : 100 :: 1·52 : 3·234 cubic inches. Thus we learn, that, during the fermentation, about three and a quarter cubic inches of carbonic acid gas were generated, and, as each cubic inch is very nearly complementary of one grain of sugar,(b) the thousand grains of fluid must have held three and a quarter grains of sugar in solution.

When it is considered that diabetic urine often contains from 6 to 9 or 10 per cent. of sugar, the estimation of so small a quantity may seem to be scarcely worth the trouble; but, perhaps, when the whole of the circumstances are considered, the matter may assume a different complexion.

The thousand grains of urine, measured by volume, eighteen drachms; the patient passed, on an average, every twenty-four hours, seven pints—imperial measure—of urine. From this, the sugar emitted daily by this patient would amount to very nearly half an ounce.(c) Evidently, then, it is not the amount of sugar in a small quantity of urine, but the amount voided from the system in the twenty-four hours that gives the formidable character to disease; and hence the quantitative analysis becomes of moment. Although the sugar did not raise the specific gravity of the urine in this case, yet, had the quantity passed been normal—30 oz. or 40 oz.—it would have been sufficient to raise the density to the diabetic standard. Hence, then, the necessity will appear of ascertaining, not only the existence of sugar, but the quantity or weight in relation to the quantity

(a) Animal Chemistry, pp. 112, 113.
(b) Urinary Analysis, p. 26.
(c) Chemical Aphorisms, by the Author.
(d) Urine often contains free carbonic acid, and this might lead to error. The boiling will expel it.

(a) See Chemical Aphorisms, by the Author. P. 90.
(b) Urinary Analysis. P. 26.
(c) Seven pints contain 140 oz. × 8 = 1120 drs. ÷ 18 = 63 × 3·25 = 204·75, which is equal to 3·4125 drs.

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of urine, so as thence to deduce the quantity of sugar passed in twenty-four hours.

Perhaps I may seem to have been unnecessarily diffuse upon this matter; but as neither low density, with even moderate diuresis, nor again high specific gravity with diuresis, is incompatible with the existence of sugar, I felt it right to particularly direct attention to this subject.

There are two points to which it may be proper merely to allude. First, as the amount of sugar is to be deduced from the measure, not the weight of the urine, the weighing may be dispensed with. Secondly, the carbonic acid might be estimated from the carbonate of baryta, after being washed and dried, every 98 parts by weight of which would represent 22 of the acid; still, as we cannot ignite the carbonate, there is greater risk of error from adhering impurities; and though the error may be trifling in an ounce or two of urine, when multiplied into gallons it becomes of serious moment. It is evident, that, by collecting the carbonic acid expelled by the sulphuric acid, so as to measure its cubic volume, it may be used as a corroborative proof of the correctness of the inference deduced from the sulphate.

I myself have never found any difficulty in the detection of sugar by this process; and, if the object be merely to ascertain its presence, irrespective of quantity, the process is very simple. We have only to introduce the urine into any bottle, adapt to it a cork fitted with a conducting tube, and excite fermentation, conducting any gaseous product into barytic water, which will become turbid if sugar be present. Torulæ may be looked for in another portion set aside to ferment in an evaporating dish or saucer.

I have tried the delicacy of these processes in a great variety of ways. It is not always possible to obtain diabetic urine, but we can readily prepare it, or a substitute for it, by dissolving grape sugar in ordinary urine; and I have found that I could not only detect, but determine the amount by weight, of half a grain of grape sugar in 1000 grains of urine within 003 parts of a grain; and even this error probably might have been avoided by a little more care and attention in conducting the different parts of the process. It is evident that the other modes of detecting may be made use of to confirm the correctness, indeed, of each other.

The question of the presence of sugar in the urine being of such great moment, and allowing its amount to be so inconsiderable as to leave a doubt, this may be cleared up by evaporating a considerable portion of urine to dryness, washing the dry mass with boiling distilled water and filtering; we shall then have a solution of sugar, if such existed, more concentrated, which may then be tested as previously directed; or the sugar may be extracted by Lowig's (a) method, and the amount ascertained by fermentation (b).

Having thus gone through, and detailed at some length, the objects of this paper, perhaps a concise recapitulation may prove not altogether useless to those for whom more especially these observations have been published. I do not profess to have discovered anything wonderful, or previously unknown; I only flatter myself with believing that I have applied more usefully what is known, and rendered the application more easy and more manageable for those not over expert in such manipulations, for the discovery of truth; and possibly the promptness and saving of time are not among the least valuable of the claims.

By the methods proposed, we at once and directly recognise, when spontaneously deposited, in all their forms, modes of crystallization, &c.,

Uric acid,	Cystine or Nephrine,
Hippuric,	Epithelium,
Double phosphate,	Blood-discs,
Oxalate of lime,	Spermatozoa,
Carbonate	Vermicular tubes of albumen,
Torulæ diabeticæ	Fibrinous casts of conduits.

These may be all recognised by allowing the deposit to subside and attach itself to the cork (c) when the bottle or tube containing the deposit is inverted.

The alkaline urates, phosphate of lime, mucus, pus, and some few other occasional but rare deposits, present no microscopical appearance sufficiently characteristic. The alkaline urates dissolve by heat, and the uric acid is precipitated in its crystalline forms by hydrochloric acid. Phosphate of lime dissolves in acetic acid, and the addition of oxalic acid to the solution throws down beautiful octohedral crystals of oxalate of lime. If the acetic acid causes effervescence, carbonate of lime is present; if not, the salt must be the phosphate.

It may be as well here to recommend to those who have not engaged much in such inquiries, never to commence without having everything that can be required at hand. Many have acquired a distaste, from finding, at every step, there was something which their foresight had overlooked. In fact, regularity and arrangement are not only essential to accuracy and correctness, but, in fact, no operation can be proceeded in, with any degree of satisfaction, without.

In the course of this paper, I felt compelled to dissent from some of the statements advanced by Dr. Bence Jones. The criticisms, however, I trust, partake in no degree of captiousness of spirit, nor are couched in any offensive modes of expression. Indeed, I feel, myself, that I have paid Dr. Bence Jones the highest compliment in my power; for, had I considered the statements themselves of no moment, or their source of no authority, I should never have taken the trouble I have done to examine their stability, nor had this paper extended to anything like the length to which it has attained.

9, Finsbury Circus.

P.S. Since the foregoing pages were sent for publication, an opportunity has offered of examining the quantity of oxalate of lime in two or three specimens of urine. I am occasionally called upon to examine the sediment which deposits from the urine passed by a gentleman residing in the country. This sediment consists principally of uric acid and oxalate of lime. On the 4th October, three bottles came to me containing specimens of the urine passed in the morning, noon, and evening. I selected that passed at noon, as seemingly containing the largest quantity of sediment. The amount was determined as follows:—

A filter being selected, was dried in a hot-air chamber till it ceased to lose weight. Its weight was 10·08 grs. The urine contained in the bottle measured (by volume) ʒvi.+ʒv. The fluid was passed through the filter, and the uric acid was washed through by a warm solution of potass. The residual oxalate was washed with warm distilled water till the washings ceased to afford the slightest trace of an alkaline re-action. The filter and oxalate were then dried in a hot-air chamber. Being weighed at different periods, it was found to lose weight at the following rates:—

1st it weighed	. . . .	17·03 grs.
2nd	,, ...	16·06
3rd	,, ...	16·00
4th	,, ...	15·33
5th	,, ...	14·28

Here the loss of weight ceased: then 14·28 − 10·08 = 4·20 grains. Thus, in about ʒvi. of urine, we find about four grains of oxalate of lime; quite sufficient, in quantity, to determine, qualitatively, and by a variety of experiments, the composition of the oxalate. True, it must be admitted, that this urine abounded to an unusual extent in oxalate of lime; still I think the phenomena leave it beyond a doubt that we may, in general, obtain from the urine of twenty-four hours sufficient of the salt to determine, qualitatively, its composition.

(a) See Urinary Analysis, p. 26.

(b) In separating the sugar by Lowig's method, we must recollect that there will be potass in the solution; therefore the solution will be alkaline, and the alkali would absorb and condense the carbonic acid evolved during the fermentation. It will be necessary, therefore, to neutralise the alkali by acetic or hydrochloric acid in slight excess, to prevent any possibility of failure or of error.

(c) I never met with any instance in which the cork did not retain quite sufficient for examination, but, by attaching a piece of chamois leather, &c., to the end, the adherence may be more completely secured.

ON THE PATHOLOGY OF THE UTERUS; ITS ANATOMY AND PHYSIOLOGY.

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(Continued from page 91.)

THE CAUSES OF THE CONTRACTIONS OF THE UTERUS.

On this subject two distinct opinions are held:—(I.) That the contractions are *dependent* on the influence of the cerebro-spinal system. (II.) That the contractions are *independent* of the cerebro-spinal system, although they may be influenced by it.

I. That the contractions are *dependent* on the cerebro-spinal system. In support of this opinion there are quoted, (A) Experiments on Animals, and (B) Cases of Disease.

(A) EXPERIMENTS UPON ANIMALS.

(a) The experiments of M. Bruchet, which are :—

1. The spinal cord was divided—it is not stated in what part—in an animal at the commencement of labour. The contractions "were suspended, but not entirely abolished." Some trembling continued at the lower part of the stomach. The animal lived three days, and died without giving birth to the young.

2. The spinal cord was divided "between the second and third vertebræ" in another animal, at the commencement of labour. The contractions of the uterus diminished; "it was no longer labour, but the abdomen continued to show slight contractions." The animal died on the second day. It is not stated whether delivered or not.

3. The spinal cord was divided between the second and third dorsal vertebræ. The contractions of the uterus and abdomen entirely ceased. The animal died, undelivered, on the second day.

4. A similar experiment to the last was performed on another animal. The contractions were similarly arrested. It lived twenty-one hours.

5. The cord was divided in a rabbit at the last dorsal vertebra after labour was well established. All kinds of contractions were suspended. One hour after the operation, one pole of a voltaic apparatus was applied to the lower end of the spinal cord, and the other pole to the uterus itself. The cornua of the uterus began to contract, and the abdomen acquired a tension. Several times the current was interrupted, and at each interruption the abdomen became pliant. After the current had been applied three hours one young one was expelled, another in a quarter of an hour after, and a third half an hour after the second. The animal died three hours after the operation, with five young in the uterus, although the galvanic current had been unceasingly applied.

6. After a guinea-pig had been in labour for one hour, an incision was made down to the sacrum, a stilette introduced, and the nerves divided. Severe flesh wounds were made in the dorsal and lumbar regions without implicating the cord. The animal gave evidence of severe suffering, yet, in less than two hours five young were expelled.

From these experiments, M. Bruchet states, "It is natural to conclude that the uterus and its cornua had partaken of the paralysis of the lower extremities, and that their contraction is determined by the spinal nerves which arise from the spinal cord below the tenth dorsal vertebra."—(P. 266.) "That the cerebral system produces the uterine contractions."—(P. 269.)

(b) The experiments of M. Serres, which are—

1st. The spinal cord was divided in the rabbit, guinea-pig, bitch, &c., in the lumbar region, before the period of parturition. Labour did not take place, and the animals died undelivered.

2nd. The same section was performed in the same place in animals during labour. The contractions were arrested, and parturition did not take place.

3rd. After the decapitation of an animal big with young, a stilette was passed down the spinal cord, from above downwards. When it arrived at the lumbar region, contractions of the uterus were manifested, and parturition was accomplished.

4th. The injection of tincture of nux vomica into the veins of the leg in the rabbit and guinea-pig was followed by abortion.

M. Serres concludes from these experiments, "That the integrity of the lower part of the spinal cord appears necessary to enable the uterus to expel the product of conception."—P. 609.

In reviewing these experiments, it is evident that the division of the spinal cord in the first four experiments of M. Bruchet, and in the first two series of those by M. Serres, will withdraw the influence of the brain, *i.e.*, volition and emotion, from the uterus, but will in no way affect the influence of the spinal cord, *i.e.*, the reflex action, upon the contractions of this organ, seeing that the lower portion of the cord remains uninjured. These experiments have been frequently quoted as demonstrating the influence of the spinal cord upon the contractions of the uterus; yet, when examined, it is found that the influence of the brain alone is cut off, and that the reflex action of the cord remains unaffected. Nevertheless, the contractions of the uterus were arrested, showing that the influence of a severe operation upon the system is sufficient to effect that object. No one, in the present day, entertains the idea of M. Bruchet, that after the division of the spinal cord "the uterus had partaken of the paralysis of the lower extremities," and consequently did not contract, or "that the cerebral system produces the uterine contractions." Nor is the opinion of M. Serres more tenable, "that the *integrity* of the lower part of the spinal cord appears necessary." Although some ambiguity might arise in respect to the word "integrity," yet a reference to the experiments shows that this expression is used to indicate the connexion of the lower part of the cord with the brain.

The fifth experiment of M. Bruchet shows, that after the uterine contractions had been arrested by the "shock" of a severe operation, they (the contractions) may be again excited by a local irritant applied to the uterus; whilst the sixth experiment demonstrates that a severe operation and destruction of the sacral portion of the spinal cord is not sufficient to stop the contractions of the uterus in all cases. It is to be regretted that the same animals were not employed in all these experiments, for the guinea-pig may be less influenced by the "shock" of the operations than the animals upon which the former experiments were performed.(a) However, without this objection no deduction can be drawn from this experiment as to the influence of the spinal cord, the sacral portion of which only was destroyed; for we now know that the nerves supplied to the uterus are derived from the lumbar and dorsal portions, which remained in this case uninjured.

The third experiment of M. Serres is in opposition to the two first series. The two first show that the uterine contractions are arrested when the influence of the brain is cut off from the organ by division of the cord; the third, that the contractions may be excited, and may continue after the head has been severed from the body, by irritating the lumbar region of the spinal cord with a stilette. The deduction which is to be drawn from this third experiment is, that after the removal of the influence of the brain, the uterine contractions may be excited through the influence of the spinal cord - a fact which is well known, but which by no means proves that these contractions are dependent for their continuance upon the influence of the cord. The sixth experiment shows that contractions of the uterus can be excited by medicines—a fact which is also well known.

(B) CASES OF DISEASE.

(a) *The Case recorded by M. Ollivier (p.* 784).—A young woman, aged 22 years, was seized, towards the end of the second pregnancy, "with insensibility and paralysis of the lower extremities." The symptoms indicated compression of the cord. "At three o'clock a.m. the labour took place suddenly, and with so little pain that the woman was only aware of her confinement by the subsidence of the abdomen and the cries of the child, which was strong" and full grown. She died ten days after her confinement, from the effects of the paralysis. At the *post-mortem* examination, the spinal cord was found to be compressed by hydatids opposite to the fourth dorsal vertebræ.

(b) *The case related by M. Bruchet (p.* 266).—"I knew a lady who was the mother of three children, and who became paraplegic; the loss of sensation was complete as high as above the pubis; the sensation during coition was lost, yet she became with child for the fourth time. At the end of nine months, parturition appeared to commence, but in so vague a manner that she only suspected it by the date of her pregnancy. The uterus could scarcely be felt to contract when the hand was applied to the abdomen, and there was no pain whatever. By the touch I recognised the same tension of the uterus, the orifice of which was open, and of a remarkable softness, the secretion of mucus was abundant. I left the parturition to nature for twenty-four hours, yet it did not progress. This lady, who had been very quick in her last

(a) When speaking of these experiments, the reviewer in the *British and Foreign Review* says: "The influence of the shock produced by severe injuries of the cerebro-spinal nervous system upon organs whose habitual actions are independent of it, is abundantly manifest in the case of the heart; and every accoucheur is well aware how liable is the action of the uterus to suspension from remote causes of this nature. The speedy death of the animals which had sustained this injury is an indication of the severity of its general effects upon their system."

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two confinements, wished to have this finished, from the feeling that she would not be able to complete it without assistance. By some titillations of the neck of the uterus I endeavoured to provoke the contractions, but without effect. The soft organ admitted of being so much distended in every direction, that the orifice was completely dilated. The head of the child presented naturally. I pierced the membranes, and the water escaped by the contraction of the uterus; the head descended, and engaged in the superior aperture of the pelvis, from which it did not move. I endeavoured during two hours to produce a natural parturition, by titillating and piercing the uterus, but in vain; the contractions did not come on. With the forceps I succeeded in extracting a full-grown living child. The uterus contracted slowly upon itself. During more than an hour I made frequent frictions (on the abdomen), but in vain, to produce the expulsion of the placenta, and was obliged to introduce the hand to remove it. It was only with an extreme degree of slowness that the uterus gained its ordinary volume."

(c) *The Case of M. Nasse.*—This I have not had an opportunity of consulting in the original. It is thus detailed in Professor Simpson's "Notes on the Inhalation of Sulphuric Ether," 1847: —"Complete paralysis had followed a fracture of the third and fourth cervical vertebræ, notwithstanding which the act of parturition in the human female proceeded regularly in its course, and without conscious pain."

(d) Dr. Merriman has communicated to me the following case. It happened more than fifty years ago, and is narrated from memory:—"A woman who had borne children became paralytic, but this did not prevent conception. When she was pretty far advanced in pregnancy, and was unable by any means to pass the urine, and her bowels were in want of occasional aperients, the law of the Westminster Lying-in Hospital, that no person should be admitted as a patient till some symptoms of labour had shown themselves, was suspended in her case, and she was admitted several weeks before the full time.

"The resident medical pupil of the hospital at that period was a son of the celebrated William Hewson, the pupil of William Hunter, and this poor woman fell under his immediate care. I did not reside in the hospital, but was in daily attendance, and it sometimes happened that it was more convenient to me than to Mr. Hewson to introduce the catheter for this patient, which was required twice at least every day. Altogether, the circumstances of the case occasioned much anxiety, and Mrs. Blenkinsop, the matron, was instructed to apply to Dr. Thynne or Dr. Porquand, the two physicians of the hospital, in the event of anything going wrong. The poor woman's posture was that of lying upon her back, unable to turn herself, and never comfortable in any other position. She was thin and spare, but did not look unhealthy. I do not well recollect what was her power of utterance, but I think it was defective.

"It so happened that, when this patient was in labour, under the care of Mr. Hewson, another patient was in labour in the same ward, whom I was attending. Mine was upon one of the 'labour beds' as usual there, but the paralytic had her bed made as convenient as it could be, she lying on her back. She bore her pains very quietly; they were long apart, but effectual, and a living child was expelled by the pains alone, the finger only being employed in assisting. The poor woman went on very well for ten days or a fortnight, still requiring the catheter, after which I know nothing about her."

Remarking upon the cases of MM. Ollivier and Bruchet, Dr. Marshall Hall observes, "I may now ask, how are we to explain the discrepancy between the facts—apparently similar—observed? I think it probable that in the case detailed by M. Ollivier, the disease was *above* the origin of the cauda equina; and in that of M. Bruchet it was seated *below* that origin. In the latter case, the cerebral or connecting link between the incident and reflex nerves would be wanting, and the reflex functions would consequently cease." Upon what facts Dr. Marshall Hall thinks this "probable," I am at a loss to perceive. The seat of the disease in M. Bruchet's case can only be determined by the symptoms, and these, as detailed, were identical with those of the case by M. Ollivier. In the one there was "insensibility and paralysis of the lower extremities;" in the other, a case of "paraplegia, the loss of sensation was complete as high as above the pubis;" which are simply different modes of expressing the same facts. It is further said, in one case "the woman was only aware of her confinement by the subsidence of the abdomen and the cries of the child;" in the other, "there was no pain whatever;" again expressions signifying the same thing. The supposition of Dr. Marshall Hall is also contrary to the facts of anatomy. Had the disease existed in the dorsal region in one case, and in the cauda equina in the other, the pains would have been felt during labour in the latter case and not in the former, seeing that the spinal nerves distributed to the uterus come from the lumbar and dorsal regions. Had the disease been seated in or near the "cauda equina," the labour pains would have been felt as usual, as in the case observed by Dr. Merriman. Hence, from the extent of the paralysis, and from their being "no pain whatever" in either instance during labour, I deduce that the disease in both cases was seated high in the dorsal region. Such being the case how is the sudden labour in the one, and the great inertia in the other, to be explained? An analysis of the cases will, I think, show that the difference between them is more apparent than real.

In the case recorded by M. Ollivier, the labour is said to have taken place suddenly (*tout à coup.*) Upon what grounds is this said? "The woman was only aware of her confinement by the subsidence of the abdomen and the cries of the child." But this is no evidence that the labour was sudden. As no pain was experienced, and as the approach of parturition was not watched, who can say that this labour had not gone on for many hours before the child was expelled? So little notice appears to have been taken, that no mention is made of the escape of the liquor amnii. It is not said whether it occurred before, or at the time of the birth of the child; nor is there any circumstance in the history of this case to prove that this was a sudden labour. The only facts are the expulsion of the child without any pain, and without the knowledge of the mother. There is no evidence to show how long the uterus took to effect this expulsion.

In the case recorded by M. Bruchet, the labour is stated to have occurred with great inertia. Upon what grounds is this stated? A lady affected with paraplegia, suspected, from the date of her pregnancy, that labour had commenced. There was no pain whatever. On examination the uterus could scarcely be felt to contract; the orifice was open, and of a remarkable softness; the secretion of mucus was abundant. Twenty-four hours after, the membranes were pierced, the "waters" escaped, and the head descended to the superior aperture of the pelvis. For two hours more the contractions were solicited by titillating and piercing the uterus, but in vain. The forceps were then applied, and the child extracted. More than one hour afterwards the hand was introduced to extract the placenta, which frictions on the abdomen failed to accomplish. The uterus finally contracted with an extreme degree of slowness. Thus, twenty-six hours after a lady suspected she was in labour, from the date of her pregnancy, the child is extracted by the forceps, the placenta removed by the introduction of the hand, and the labour said to be one of great inertia. This conclusion, however, does not appear to be warranted. (1.) There is no evidence that the lady was in labour at the time she supected herself to be. The date of the pregnancy is very fallacious. Suppose she knew the hour of her conception—a knowledge only rarely attained—and suppose from this time she calculated the full 280 days, what proof is there that this was not one of the many gestations which are prolonged beyond this period? The scarcely perceptible contraction of the uterus, the open and soft orifice, and the secretion of mucus, are again not symptoms of *actual* but only of *approaching* labour, and may, in a perfectly healthy labour, be present for some days; and hence, *à fortiori*, twenty-six hours before the expulsive pains of labour commence. (2.) Nevertheless, the membranes were pierced, and, because the uterus did not contract with sufficient force to expel the child within two hours afterwards, the forceps were employed to extract it. Here, again, all evidence is wanting to show that the contractions of the uterus were inefficient. Suppose a case of natural labour, in which the membranes were pierced at the premonitory stage, is it probable that, in a fourth labour, the head of the child would have passed the *superior* outlet of the pelvis in two hours, much less have been expelled? And suppose parturition was not completed in *two hours* after the piercing of the membranes, would this have been considered an unnatural labour, or would any

careful and unprejudiced practitioner have thought himself justified in resorting to instrumental interference? Cases are sufficiently abundant in which the liquor amnii has been more or less evacuated for many hours, for several days, and, in one case which I saw, for three months, yet the labour eventually proceeded, and the expulsion of the child was effected without artificial assistance. (3) The non-expulsion of the placenta, after the birth of the child, is, further, no evidence of inertia. Experience abundantly proves, that nothing causes the retention of the placenta in natural labour so frequently, or perhaps so certainly, as the premature extraction of the child. An anecdote, strongly illustrating this point in practice, is mentioned by Dr. Merriman in his valuable "Synopsis of Difficult Parturition." Twelve midwives were attached to a public institution to which Dr. Merriman was physician accoucheur. One, in particular, very frequently sent for assistance in consequence of retention of the placenta. Dr. Merriman often endeavoured to discover the reason of the frequency of this occurrence in her practice, but in vain, until a few years afterwards, when he learned through her daughter, that "she (the midwife) thought it the greatest nonsense in the world to allow the poor woman to wait for a pain to deliver the shoulders, when it was possible to finish the labour, by a little assistance, without delay; for her part, she was always used to bring the child as soon as the head was born, and so she should still do." (4) The extreme degree of slowness with which the uterus is said to have contracted is still no proof of inertia. This slow contraction is far from unusual in labours which have been forced prematurely, like the one under consideration, or where sufficient time has not been allowed for nature to perform the function in the usual way. Both the patient and the practitioner appear to have acted on the supposition that assistance would be necessary, and, therefore, the sooner it was given the better.

Hence an analysis of the two cases shows, that in the one there is no evidence that the labour was sudden; and, in the other, there is no proof that the labour was one of inertia; seeing that from imperfect data it was prematurely interfered with and hurriedly completed. The case detailed by M. Nasse furnishes strong evidence in support of this view, where, notwithstanding complete paralysis followed fracture of the third and fourth cervical vertebræ, the act of parturition proceeded regularly in its course and without conscious pain.

The case observed by Dr. Merriman forms an important sequel to the preceding. A woman afflicted with paraplegia, and unable to pass the urine, conceives and gives birth to a full grown child, at the full period of pregnancy, with the ordinary pains of labour. In this case, the action of the spinal cord was unaffected; the pains during labour showing that the disease which caused the paralysis was seated below the origin of the spinal nerves distributed to the uterus. Hence, although no inference can be drawn from it, as to the action of the spinal cord upon the contractions of the uterus, still, it is interesting as showing, that disease of the lower part of the spinal cord, sufficient to produce paralysis of the lower extremities, does not prevent the pains of labour being felt, nor arrest the contractions of the uterus. Was the disease seated in or near to the cauda aquina? and does this explain the retention of urine? We know that the bladder is well supplied by spinal nerves from the sacral plexus, and that a disease seated in the cauda aquina would sever the influence of the cord from this viscus, whilst it would leave the action of the cord upon the uterus intact. Is this the explanation of the symptoms?

It would be wrong to leave this subject without noticing two cases recorded by M. Serres. (Op. Cit., p. 610.) "In two women afflicted with paraplegia, and arrived at the full period of gestation, the uterus remained so inert, that, in the one, the neck did not dilate sufficiently to allow the forceps to be introduced; and, in the other, the child was obliged to be extracted by the Cæsarean operation." These cases, especially the latter, are so unusual, that I am inclined to suppose there must be some error in relating the cases, such as occurs in the following quotation from the same author (p. 610):—"M. Bruchet cites the case of a lady who became pregnant, although affected with paraplegia. It was the fourth pregnancy. In the three former, which occurred before the paralysis, the labour was natural; the forceps became necessary in this one. There was not the least expulsive pain; the uterus, always pretty firm, *did not contract in the least*," (*ne se contractait point*). Nothing can be further from the fact than this last sentence, which is readily perceived by referring to the case already given; and I am inclined to think that some similar inaccuracy must have crept into the two preceding cases of paraplegia.

On reviewing the evidence in favour of the opinion, that the contractions of the uterus are *dependent* on the cerebro-spinal system, we have—

(A) The experiments, which show—

(a) That the division of the spinal cord in the dorsal or cervical region will only cut off the influence of the brain, *i.e.*, volition and emotion, from the actions of the uterus.

(b) That the lower portion of the spinal cord remaining entire, the reflex actions of the cord will not be withdrawn from the uterus.

(c) That with this condition the uterine contractions were arrested; hence,

(d) That the "shock" of the operation was sufficient to arrest the uterine contractions during the few hours which the animal lived.

(e) That by irritating the uterus and spinal cord by galvanism, or irritating the lumbar portion of the cord by the introduction of a stilette, the uterine contractions were partially recalled.

(f) That in the guinea-pig, integrity of the lumbar portion of the spinal cord, and destruction of the sacral portion, did not prevent the contractions of the uterus, nor the process of parturition being accomplished.

(B) The cases of disease, which show—

(a) That disease of the cervical or upper dorsal regions of the spinal cord, sufficient to produce paralysis, prevents the pains of labour being felt.

(b) That, notwithstanding this, the contractions of the uterus proceeded regularly in their course, and apparently unaltered in force.

(c) That in these cases the influence of the brain alone would be cut off; the lower portion of the spinal cord remaining entire, the reflex action will not be destroyed.

(d) That disease, seated probably in the lower part of the cord, or cauda equina, sufficient to produce paralysis of the lower extremities, does not prevent the pains of labour being felt, nor interfere with the uterine contractions.

(C) The experiments and cases of disease together show—

(a) That in every case the reflex action of the spinal cord was present; hence

(b) That they supply not the least evidence "that the contractions of the uterus are dependent on the cerebro-spinal system:" hence

(c) That the solution of this problem must be sought by other means.

9 A, Langham-place.

(To be continued.)

ON THE SUBCUTANEOUS APPLICATION OF THE LIGATURE FOR DEEP-SEATED NÆVI.

By JOHN ADAMS, Esq., F.R.C.S.E.,

Surgeon to the London Hospital, and Lecturer on Anatomy in the School.

In the treatment of these cases it is of course a primary object to cure the disease without the destruction of the skin which covers it, and which, in many cases, is scarcely involved in the disease. Hence the employment of the seton, the cutting up of the tumour with the couching needle, the injection of irritating lotions, and the introduction of probes armed with nitrate of silver, &c. &c. Nay, even the actual cautery may be used with the view to induce such an amount of inflammation in the cells and blood-vessels of the tumour as shall lead to its complete obliteration.

It has suggested itself to me that a ligature might be so employed as to embrace the whole of the disease without compromising in any manner the vitality of the superjacent skin; and the following is the plan I put into operation in a recent case:—

The disease occurred in a child six months old, and was situated on the right cheek, close to the nose and just beneath the eyelid. The tumour was somewhat oval, its long axis vertical, and, although the disease was principally in

the subcutaneous vessels, yet the veins of both upper and lower palpebræ were somewhat varicose.

I introduced a long needle armed with a ligature, only slightly curved on the flat towards the point, and carried it through the side of the tumour in its long axis, from below upwards; having drawn out the needle on the opposite side, I re-introduced it on the other side of the tumour, at a point on a level with its point of exit, and brought it out opposite the point of its first insertion. If I had now tied the ligature I should have encircled the whole of the tumour, but there would have been great puckering of the skin at the upper and lower edge, whilst the skin on either side would have been free. To obviate this inconvenience, therefore, I cut through the skin above and below, from the point of insertion to the point of exit of the needle, and, having tied the ligature firmly, I endeavoured to strangulate the tumour.

In this case the success was not complete, and I believe the want of success arose from my having, on the fourth day, divided the knot with a pair of scissors, and removed the ligature before the disease was effectually destroyed.

This method of procedure is founded on the assumption, that subcutaneous nævi are supplied by vessels springing from below rather than by those of the skin. This, however, is not always the case, and I am inclined to think that in the instance just related there were many vessels passing into the tumour from the skin.

I am not aware that this mode of applying the ligature has been put in practice before; it is exceedingly simple, and, as it in nowise compromises the vitality of the skin, I think it deserving of a fair trial.

In another case I certainly should allow the ligature to remain, until, by gentle and gradual traction of its ends, which should be left of about two inches in length, it could be made to cut its way through the base of the tumour, thus completely detaching it from its subjacent connexion.

4, St. Helen's-place.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

BY

HENRY SMITH, Esq., F.R.C.S.,

(Formerly House-Surgeon to the Hospital.)

AND

BY LIONEL BEALE, Esq.,

House-Physician.

CASE OF CHRONIC GOUT, WITH DEPOSITIONS OF CHALK STONES IN VARIOUS PARTS OF THE BODY.

Wm. Pyne, aged 43, a carter, not an intemperate man, but accustomed to take a fair allowance of porter, was admitted into King's College Hospital under Dr. Todd, on the 23rd of September, in consequence of great pain and swelling of the little finger of the left hand, of a gouty character. None of his relations had suffered from this disease. His first attack occurred nine years ago, and was followed in six months by another of a similar nature, since which time he has never been free from an attack of gout for three months together. The early seizure had a very shifting character, pain coming on in one joint, rapidly ceasing, and as rapidly affecting another; the patient at this time being only laid up for three or four days at each recurrence of the malady. For the last five years, however, the attacks have generally lasted longer, and have been of a more severe character.

Seven years ago this man was an in-patient of the hospital, and was then suffering from severe pain affecting the elbows, hands, knees, and ankles of both sides; the hands were very red and much swollen at this time, but in five or six weeks the patient got quite well. Four years since he was laid up for fourteen weeks, and, during this illness, he observed chalk stones forming about the knuckles of one hand; and, about the same time, a few small collections occurred under the skin of the ears. In November, 1848, he was again admitted into the hospital, in consequence of a large collection of chalky deposit on the back of the right hand, which was opened, and much lithate of soda escaped. This was followed by an attack of bronchitis, which, for some time, resisted ordinary remedies, but became rapidly well as soon as an attack of gout was brought on in the feet by the application of mustard poultices. About the same time he suffered from severe pain in the stomach, with frequent vomiting and great distension of the belly; the pain being quite as severe when the stomach was empty as it was after he had taken a meal.

Two or three months after this last attack, his face and head became much swollen, and, when the swelling subsided, three or four small collections of lithate of soda had formed on the forehead, and one under the skin of the left upper eyelid, which was opened, and has not since returned.

At the time of his admission, the little finger of the right hand was very red and much swollen, and he complained of a severe pain of a gnawing character in the finger and elbow of the same side. There was considerable swelling on the inner side of the elbow; and the patient also complained of pain in the axilla, where a slight swelling could be detected. These symptoms were preceded by the occurrence of a sharp rigor, followed by great thirst, a furred tongue, and vomiting, with severe pain in the region of the stomach, and a tympanitic state of this viscus.

In a few days a small abscess formed in the little finger of the right hand. The abscess was opened, and a quantity of pus escaped. For several days his pulse remained above 100, and he slept but little, at the same time vomiting everything that was given him, and complaining of considerable pain in the stomach. After these symptoms had been somewhat relieved by slight stimulants and salines, he was ordered to take two grains of the acetic extract of colchicum every night at bed-time.

The sickness occurred at intervals to a slight extent, and his appetite continued very bad. He remained in much the same state until November 1st, when the severity of the symptoms much increased. The swelling soon affected the whole hand, and extended up the arm to the axilla, the whole limb presenting an erysipelatous appearance. There was great constitutional disturbance, with a dry, brown tongue, great difficulty of breathing, and a very haggard expression. The pulse had reached 110, and the respiration 29 in a minute. Catarrhal sounds were heard all over the chest. He was ordered half an ounce of brandy every hour, a sixth of a grain of muriate of morphia at bed-time, a turpentine stupe was applied to the chest, and warm fomentation to the arm. The next day (Nov. 4) he was much relieved, the pulse had fallen to 90, the pain in the hand had much decreased, and the arm had evidently improved. At this time the right hand was nearly twice the natural size; the skin over it was red and tense; over every joint there was a deposit of lithate of soda, and in several places there were small abscesses, the discharge from which, when examined by the microscope, was found to consist of pus, with numerous acicular crystals of the lithate of soda. The left hand was affected in a similar manner, but to a much less extent. There was a slight deposit over the inner condyle, and several small collections of the lithate under the skin of each ear. The feet were but very slightly affected with the chalky deposit, there being only one small collection over the joint of the great toe of the left foot.

The collections in the hands were from time to time laid open, and from one opening a hard chalk stone, as large as a small nut, escaped. On Nov. 6th, he appeared to be getting very low, and the brandy was consequently increased to ℥ ss. every half hour, and the acetic extract of colchicum was discontinued.

Three days after the commencement of this plan of treatment there was very marked improvement. The pulse had much increased in power, the sickness had altogether ceased, and the pain was much relieved. Dr. Todd, therefore, thought it advisable to diminish the amount of stimulants to half an ounce every hour; but the next day the patient relapsed, and again became better upon the administration of the former quantity of brandy.

On November 15th he was so far better as to bear a decrease in the stimulants, and from this time he gradually but slowly improved. The collections of chalky deposit and small abscesses in the hands required opening occasionally; the hands regained their former size, and, although only slight motion of the fingers remained, the patient was enabled to walk about the ward by the aid of a stick. In this

case the urine was slightly albuminous, of a very pale colour, and slightly acid reaction, varying in specific gravity from 1012 to 1020, and usually containing a slight flocculent deposit, which was found to consist of very transparent casts (some of which contained a little epithelium), free epithelium, and a little mucus.

In a clinical lecture which Dr. Todd gave upon this case, he remarked that it was one of the peculiar characters of this form of gout, to lead to the deposition of lithate of soda about the joints of the upper extremity especially, at an early period of the disease; while many persons may be afflicted with very frequent attacks of gout, which may even continue into extreme old age without the slightest deposit of lithate of soda in any part of the body. In this patient the gouty concretion commenced forming when he was only thirty-eight years of age, and at the present time, though only forty-three years old, he is a complete cripple. Dr. Todd also drew attention to the very asthenic nature of this form of gout—a form which does not bear any depletory treatment whatever, and in which colchicum should be administered only with extreme caution. In no case could the use of powerful stimulants have been more distinctly indicated than in the present, and in no case could the beneficial effects of this plan of treatment have been more marked. For five days this patient was taking twenty-four ounces of brandy in the twenty-four hours, and for the eight previous days he had been taking twelve ounces per diem, without any other effect than the diminution in the frequency of the pulse, and the increase of its power. The beneficial effects of the stimulants in the present case are doubtless in great measure dependent upon the erysipelatous character which the malady bore. That many of the symptoms were really due to the poison of erysipelas can hardly be doubted, both from the character of the inflammation and from the occurrence of several small abscesses subsequently, and also from the fact, that a patient affected with erysipelas had been admitted into the ward shortly before the occurrence of the urgent symptoms. The presence of the crystals of lithate of soda in the pus of many of these small abscesses is remarkable, and would appear to show the presence of two distinct inflammatory actions, both going on at the same time, and each giving rise to its characteristic secretion. The erysipelatous inflammation leading to the formation of pus; the gouty inflammation to the deposition of lithate of soda. Another interesting feature is the occurrence both of gouty bronchitis and of gout in the stomach, one of the most important characters of the last affection being, severe pains in the stomach with great distension of the organ, and, whether the viscus be empty or full, the pain remains the same. This pain was not increased, but rather alleviated, by the administration of stimulants, and was greatly relieved by the application of counter-irritants externally. L. B.

SEAMEN'S HOSPITAL.

By H. T. L. ROOKE, M.D.,
Resident Medical Officer.

SWELLING OF THE RIGHT TESTIS, PROBABLY VENEREAL, OF EIGHT MONTHS' STANDING—LEFT TESTIS BECAME ENLARGED A WEEK BEFORE HIS ADMISSION—TREATED SUCCESSFULLY WITH MERCURY.

Samuel Davis, aged 32, was admitted on board the Dreadnought, June 19, with enlargement of both testes. He states that he has had syphilis several times within the last ten years. The last attack was two years since; his mouth was not then made sore; on previous occasions he had taken mercury for the cure of chancres. He has never had sore throat, pains in his limbs, or any cutaneous eruption. There is some induration of the glands in the right groin. Eight months since he shipped himself from Greenock for Antigua; he was then quite well. Three days after the vessel sailed he was attacked with pain in the right testis, extending up the course of the cord. For this he could not assign any reason, not having gonorrhœa, or received a blow on the gland.

The testis gradually enlarged, and was a great annoyance to him from its increased weight; the pain, however, was very trifling. A week before he was admitted, he felt the left testis tender, and noticed it was swollen.

On his admission, the right testis was several times its natural size, heavy, and of a stony hardness. The cord is thickened, and the sensibility of the gland is much diminished. The left testis appears to be acutely inflamed; the skin of the scrotum is red; there is great tenderness and pain in the course of the cord. There are no adhesions between the glands and the skin; he complains of slight pain in the loins.

Pil. hyd. c. papav. ter die.

June 25.—Mouth not affected. The right testis is a little smaller. At the upper part of the tumour there is a sense of fluctuation. A grooved needle was introduced, and about ʒi. of straw-coloured fluid let out. This small hydrocele was most probably formed in the duplicature of the tunica vaginalis, between the upper part of the epididymis and the body of the testicle. The epididymis can now be felt to be greatly enlarged and very indurated; the body of the gland is softer and more elastic. The left testis is of much the same size as on admission; the nature of the swelling is the same as that of its fellow, the gland being soft and elastic, and the epididymis hard. The vas deferens of this side is also much enlarged, and can be felt even above the ring. To take four pills daily, and ung. hyd. fort. to be rubbed twice daily on the glands.

June 28.—His gums are swollen; the right testicle is decreasing in size, and is more sensitive; the left testis is also improving.

Ordered to rub in the ointment once daily, and omit his pills.

July 2.—The application of the ointment daily has been sufficient to keep him under the mercurial influence; he is improving rapidly.

July 10. Continues to improve.

He remained on board until the middle of August, at which time the testicles had nearly returned to their normal size. Some slight induration of the epididymis still remained.

SWELLING AND INDURATION OF THE RIGHT TESTIS TREATED BY MERCURY.

John Winter, aged 24, was admitted on board the Dreadnought, June 20th, with an enlargement of the right testis. He gives the following history of his case. Eighteen months ago he received a blow on the scrotum from one of his shipmates; this was followed by a hydrocele of the left tunica vaginalis, for which he was admitted a patient on board this ship. The hydrocele was tapped, ʒi. of tinct. of iodine injected into the cavity of the tunica vaginalis and allowed to remain there. He left the hospital in about a week quite well. Three weeks after this he observed that his right testicle was larger than natural; he had some pain in the gland at first; this, however, soon ceased, but the swelling continued to increase. He again applied for admission on board, was treated by mercury, and at the end of five weeks was discharged cured. He went to sea; but a very short time elapsed before the swelling returned, and it has gradually increased up to the present date.

He has had syphilis twice; the second attack was four years ago; it was followed by sore throat, eruption, and nocturnal pains.

The right testis is now several times its natural size, very heavy, greatly indurated, and its sensibility much diminished; the swelling is even and uniform; no distinction between the body and epididymis; the vas deferens is not enlarged; no adhesion of the skin of the scrotum to the testis; the left testis, the tunica vaginalis of which was injected, as has already been stated, is now in all respects natural.

Ordered—Pil. hyd. c. papav ter die. Ung. hyd. fort. to be rubbed on the testicle.

June 28.—Mouth very sore; the size of the testis is less; the epididymis can now be distinguished from the body; he is to omit the pills for a few days. Garg. aluminis.

July 3.—Mouth nearly well; to take his pills again, and rub in the ointment occasionally.

From this time he continued to improve gradually, it was necessary to keep him several weeks under the influence of the mercury before the gland regained its natural size. He was discharged cured.

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LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening, February 15.—Medical Society of London. *Subject*:—Dr. Theophilus Thompson, "On Certain Points connected with the Treatment of Phthisis." Eight o'Clock.

Monday, February 17.—Statistical Society of London. *Subject*: Dr. S. Thomson, "On the Vital Statistics of Auckland, New Zealand." Eight o'Clock.

Chemical Society. Eight o'Clock.

Tuesday, February 18.—Linnean Society of London. Eight o'Clock.

Horticultural Society. Two o'Clock.

Pathological Society. Eight o'Clock.

Wednesday, February 19.—Hunterian Society. Eight o'Clock.

Thursday, February 20.—Royal Society. Half-past Eight o'Clock.

Harveian Society. Eight o'Clock.

King's College Medical Society. *Subject*:—Mr. Headland, "On Pain, as a Symptom, its Causes and Treatment." Half-past Seven o'Clock.

Friday, February 21.—Royal Institution. *Subject*:—Mr. Carpmael, "On the Manufacture of Candles." Nine o'Clock.

Geological Society. *Anniversary*. Half-past Eight o'Clock.

Saturday, February 22.—Royal Botanic Society. Quarter to Four o'Clock.

Medical Society of London. *Subject*:—Dr. Tilt, "On Diarrhœa as a hitherto unnoticed Symptom of Menstruation, and on the Use of Purgatives at the various Epochs of the Menstrual Function. Eight o'Clock.

Guy's Hospital Physical Society. Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, FEBRUARY 15.

THE IRISH MEDICAL CHARITIES BILL.

THE NEW COMMISSIONERS OF HEALTH.

In our last article on this subject, we showed what the evils of the present Dispensary system were, and briefly alluded to the measures proposed for their alleviation, by placing them on a more permanent footing, and, instead of the late voluntary system, connecting them with the general Poor-law taxation of the country. Now, before we proceed further, we are to consider what the position of our Irish medical brethren will be; and also what the eleemosynary relief afforded to the Irish poor may amount to, should the Bill of Sir William Somerville become the law of the land. It therefore behoves us to inquire with especial scrutiny into the construction and constitution of the new governing body under the name of "Commissioners of Health," about to be established. This body is to consist of three medical men, physicians or surgeons, (but of what College or University is not specified) "who, with the Commissioners and Assistant Commissioner for administering the laws for the relief of the poor in Ireland, are to constitute a Board for regulating the entire medical charities of Ireland, with the exception of those already under the Poor-law system, and certain hospitals in Dublin, to which we shall hereafter refer. It is required that each of these Medical Commissioners shall be of seven years' standing, and it is specified that *one of them*, either a physician or surgeon, as the Lord-Lieutenant or other Chief Governor may direct, shall be paid a salary commensurate with his services and position. Such was the substance of the clause, and no more, as it stood in the original draft of the Bill. This clause, with respect to the payment of one of the Commissioners, although it very little concerned the working of the Bill throughout the country—except that it imposed a certain necessity of country practitioners sending their consultations as far as in their power to one metropolitan practitioner more than another,—seems to have greatly excited the suspicion of some of the heads of the Profession in Dublin, who thought it would give an undue and unprofessional advantage (that is, one not founded alone on scientific and practical attainments) to the said paid Commissioner. They therefore, both by public representations from their respective Colleges, and by private influence, managed to get a clause introduced, that neither the Commissioner, Secretary, Inspector, nor any of the *paid* officers of the Board, while they continued in their respective offices, should practice in any professional capacity. Upon principle, we think this was a just, honourable, and honest proceeding. Nevertheless, we have some misgivings with respect to the effect it had, not so much in checking the natural progress of the Bill through both the Houses of Parliament, as in arresting the speed of those who might have pressed it through at an earlier period of the session. When the good things were lost, those most interested in its progress ceased to press it forward; and then the "Jew," and such like causes, were blamed for its late introduction into the Lords. Certainly, the claims of the Israelite acted as one of the causes for its being so long delayed, and this, added to the opposition of the apothecaries, and the obstinacy of the infirmary surgeons, the terror of the landed interest at increased taxation, the apathy and more than apathy of the Poor-law officials, for reasons which we shall presently explain, and a little, a very little manœuvuring about a "Sanitary Bill" previously introduced, and which would have been demolished by the Medical Charities Bill, were the true causes why the Act brought in by Sir William Somerville and the Solicitor-General for Ireland, is not now on the Statute Book.

To return to the paid Commissioner; he is intended to be, and he ought to be, a Dictator, the framer of laws, arranger of districts, and the person in whom the chief powers of the Commission should vest, his whole time being given up to the subject; while his two unpaid brethren will merely come in as his advisers, receiving a share of the patronage as their reward; for such, it would be contrary to human nature and the present constitution of society, to suppose they will not both receive and exercise. They cannot, however, if they have much else to do, afford to give up a large portion of their time to their office. Of the other two Commissioners, the Chief Secretary and Under Secretary for Ireland, who are ex-officio Poor-law Commissioners, are not likely to take very great interest in the matter, and the Poor-law authorities are only required at the Board upon special occasions; so that so far the Board will, *ipso facto*, be a medical one. The paid Commissioner should be remunerated, and amply remunerated too, for his services, but not as a remuneration for the professional emolument which he may now enjoy; that would be acknowledging the very principle of a job in the commencement. We know not who the Government may intend for this Commissionership, nor who among the men practising in the higher walks of the Profession in Dublin would take it. But, whoever form the non-paid medical officers of the new Board, it is right that the Medical Profession in Dublin should know that they will and must possess an additional advantage over their brethren, which mere professional merit could not achieve for them. This will, also, to a certain degree, merge the independence of the country practitioner, but scarcely sufficient to weigh in the balance.

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The College of Physicians and the College of Surgeons petitioned both Houses of Parliament last session, to have their Presidents made *ex-officio* members of the Medical Board, but these Petitions were not backed by sufficient power or influence. We understand it has been again suggested to Sir William Somerville to introduce a clause constituting the Presidents of these Colleges members of the Board, and we dare say the recommendation, if properly pressed upon the House, would be adopted. Again, we have heard it rumoured that there should be no special Medical Board distinct and apart from the Poor-law Board, but that a paid medical commissioner, such as we have described, with the necessary medical officials of secretary and inspectors, &c., should be added to the present existing Poor-law Board, such commissioner being equally remunerated, and having equal authority, in his department with the present cheap Poor-law Commissioner, Mr. Power. After a fair reviewal of the case, we really do conscientiously believe that for the country at large this would be an equally good, if not a better plan, than the establishment of a distinct Medical Board. It would thus form an integral part of that one great system, which,—for right or for wrong originally, and no matter how it may be exclaimed against by ratepayers, or misapplied and abused by guardians and officials,—has become, and must remain so long as Ireland is a kingdom of paupers, the great governing machinery of the country. Moreover, by putting it at once in connexion with the Poor-law system, and establishing in the Custom-house of Dublin a medical office, with its commissioner, secretary, inspectors, clerk, &c., an organisation is immediately effected which would take a long time to achieve in a distinct office. It does also seem somewhat anomalous, that, except the Board, all the other ramifications of the Medical Bill are essentially part and parcel of the Poor-law system—in taxation, in providing the necessary appliances, electing the medical officers, and in governing the hospitals and dispensaries, &c. There has existed, we know, strong prejudices among medical men against the Poor-law system in Ireland (by the way, we could tell how and why some of that opposition was got up), but we were happy to observe, in reading over the report of the late meeting at the College of Surgeons in Dublin, that the tone of the medical men present was, with the exception of one or two expectants, very much altered for the better in this respect. The practitioners in distant country parts are beginning to find out that the Poor-law system is the only one on which they can now rely. Should the government of the Irish medical charities thus become vested in the Poor-law Commission, why not add thereto the Presidents of the Colleges of Physicians and Surgeons, to act especially upon all occasions where fundamental laws for the government and regulation of the Profession were to be considered, rates of pay decided on, or qualification determined, &c. Thus all ranks of the Profession would be afforded security for the proper maintenance of the body at large, and the framing of such laws as would tend to the advancement of its knowledge, and uphold the dignity of its members; while, from the office of Presidentship being elective in both colleges, annually in the College of Surgeons, and bi-annually in the College of Physicians, the great bulk of the Profession might, if they chose, have a vote in the creation of the Board, and the practitioners of the Metropolis would be left without excuse in those murmurings which have reached us with respect to the powers acquired by the unnatural position of the non-paid members of the Board as the Bill now stands. The Poor-law people regarded the new Medical Board with suspicion and jealousy, and hence the Bill did not receive from them one atom of support.

It may be said, by some of our Professional brethren in Ireland, who have not looked sufficiently far into the matter, Why not have the Board purely Medical? Why mix it up with the Poor-law at all? Will it not secure a number of good places for deserving members of the Profession?—Now, in the first place, gentlemen, you cannot help it. Take it how you will and as you will, it is and must be a Poor-law Act, and essentially a Poor-law Board. What are these medical places?—Besides the paid Commissionership, there is a Secretary to be appointed by the Lord-Lieutenant; but the Act does not state that *he* should be a medical man, (a manifest defect, and one that ought to be remedied when the Act is next introduced,) although, when he is, it provides that he shall not practise; and then there are four inspectors—one for each province we suppose—appointed by the Board; the united salaries of all which officers would—at least they ought, and we have reason to know they will—amount to something about 4,500*l.* a-year, a boon for which the Profession in Ireland should certainly be grateful, although one to which we believe it to be justly entitled, the more especially now that all the Government Medical offices, such as State Physician, Surgeon-General, State Surgeon, &c., &c., have been abolished. But all these places and emoluments under the Medical Charities' Bill will be equally well served by a United Poor-law Medical Board, as, indeed, under the Bill as it now stands it must be. Moreover, should the Act pass in its present form, we can foresee inconveniencies, anomalies, and incongruities which are sure to arise. Thus, for instance, the great bulk of patients in hospitals now in Ireland are, and must be for years to come,—until, in fact, the country assumes a more healthful and independent aspect—in the workhouse hospitals, and over these the proposed Medical Board (the "Commissioners of Health") will exercise no control, and into these, without the permission and invitation of the Poor-law authorities, the inspectors cannot enter, for the Poor-law Commission will still maintain in these institutions uncontrolled action, and their hospitals will continue to be reported on by their own Medical Inspector, Mr. Phelan. Furthermore, the Poor-law Act for providing medical relief in the form of Fever Hospitals outside the precincts of the poor-house will remain in full force; and all such institutions will consequently be without the pale, although within the districts plotted out by the Health Commissioners. The Lunatic Asylums having their own Inspectors under a special Act, are also exempt from the jurisdiction of the Board. In justice to the country at large, all or none of the Medical Charities should be under the Medical Board. In mercy to the Provincial Medical men of Ireland, they should be ruled in all such matters as we have stated above, by a Board of their brethren, not left to the domineering influence or the grasping economy of the Guardians. A most intelligent and highly-informed gentleman, Dr. Cullinan, of Ennis, at the late meeting in Dublin, gave a notable instance of the opinion entertained and expressed by one of the Irish landed gentry with regard to the medical care of the poor, and the respect due to Medical Practitioners.

Taking into consideration all the foregoing circumstances, we must say, that while we advocate the Bill chiefly on account of the urgency and necessity of the case, we think it fails, as a great and comprehensive legislative measure, to meet all the difficulties and wants in the present condition of the Medical Charities of Ireland. No doubt, Sir William Somerville and the Government have meant well, and have

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framed the Bill in accordance with the information and advice which they have received from others; and in this, as in many instances, the great Irish arch-agitator's opinion should be acted upon, and a part taken as an instalment for the whole. The medical corporations in Ireland, with the exception of the Apothecaries' Company, have not been, we conceive, sufficiently active and energetic either in promoting the interests of this Bill, or correcting its errors and abuses. The College of Surgeons in Ireland is, we suppose, a very wealthy body; it ought, at least, to have accumulated a large sum of money by the sale of its diplomas during the late jubilee, and therefore it can afford to support a paid agent in London for the purpose of watching the progress of the Bill, and reporting to its Council, from time to time, what is taking place. A few months ago our attention was called to a gross attack made upon a Fellow of the College of Surgeons, in two or three successive numbers of an Irish periodical, but, at the time, we forbore to allude to it, in the hope that restitution would have been made, although we were well aware of the circumstances of the case. The Council of the College of Surgeons, it seems, at that time at least, resolved themselves into an inquisitorial committee, to try a distinguished Fellow of the Body unheard, and without giving him even the opportunity of defending himself. There is no oath of secresy imposed upon the members of that Council, and, if there were, who would say that it would be strictly kept? The acts and opinions of such bodies find their way into the public throat, and, through that wide channel, into the Press. We understand a letter was written from London, and read by a member of the Council to his brethren, accusing, by name, the gentleman we have alluded to, of being in London for the purpose of canvassing certain Members of Parliament on behalf of the Apothecaries' claims. Next comes the writer of the letter, the following Council-day, and reiterates the charge, specifying distinctly, when questioned thereon by some doubting members, the Christian name, the occupation, and address of the person accused, giving as his authority a certain Member of the Irish House of Commons, whose name was mixed up in the abusive articles to which we have already referred. Now, what was the fact? The M.P., when applied to, denied all knowledge of the matter, and stated, that he had never held any communication, oral or written, with the accused Fellow; and then the President of the College writes to the latter, completely exonerating him from the accusation, and stating that it arose from some mistake about the name!—and thus the matter ended. We forbore to meddle in the matter at the time, evidently perceiving it was the result of private pique and professional jealousy; but here we think the matter worthy of notice, because it is intimately connected with the subject in hand. If the Council of the College of Surgeons, in their wisdom and generosity, pay a large sum of money for the acquisition of certain information, and the furtherance of certain claims, they should see that the information they obtain is correct; and furthermore, we very much doubt whether that body has a right to discuss the conduct of any of the members of the corporation upon the mere word of another, without first putting the accused in possession of the accusation.

In our next notice of this Bill, we shall take up certain sections of the Act in detail, and discuss the claims of the Infirmary Surgeons, and of the Apothecaries, both as Pharmaciens and General Practitioners.

ST. MARY'S HOSPITAL.

The Medical Staff Committee, after the most patient and searching inquiry into the merits of the several candidates for office, have completed their report; and in their selection of medical officers they have shown great discrimination. The gentlemen recommended are—

Physicians—Dr. Alderson, Dr. T. King Chambers, Dr. Sibson.

Surgeons—Mr. Coulson, Mr. Lane, Mr. Ure.

Ophthalmic Surgeon—Mr. White Cooper.

Aural Surgeon—Mr. Toynbee.

Physician-Accoucheur—Dr. Tyler Smith.

Surgeon-Accoucheur—Mr. I. B. Brown.

Dr. Alderson enjoyed for many years a most extensive practice in Hull and its vicinity, and is in every way qualified for the post of senior physician to a young institution

Dr. King Chambers received his education at St. George's, and has obtained just credit for his recent Gulstonian Lectures on Corpulence.

Dr. Sibson has greatly distinguished himself by his researches in the Pathology of the Organs of Respiration, and has invented a very ingenious instrument for measuring the chest.

Mr. Coulson is well known by his published works on Diseases of the Bladder and Prostate, Spinal Deformities, and Diseases of the Hip.

Mr. Lane is not less familiar to us as the able Lecturer on Anatomy at the Grosvenor-place School. He is also an excellent surgeon.

Mr. Ure is likewise a skilful surgeon, and has had considerable experience as Surgeon to the Westminster Dispensary.

Mr. White Cooper is favourably known as a sound ophthalmic surgeon, and as the author of a work on "Near Sight," &c.; also of papers on conical cornea and other subjects connected with the eye.

Mr. Toynbee is also well known for his valuable researches into the Morbid Anatomy of the Organs of Hearing, and is the author of several papers in the "Philosophical Transactions."

Dr. Tyler Smith has published excellent works on obstetrics, and is one of the physicians to Queen Adelaide's Lying-in Hospital. He is also one of the champions who have fought against the "speculum" abuse.

Mr. I. B. Brown is in extensive practice as an accoucheur, and has obtained considerable celebrity in connexion with the treatment of Ovarian Tumours.

To these gentlemen we would briefly observe,—for, although their appointment is subject to the confirmation of the Governors at large, we cannot doubt that that confirmation will be granted,—that one great element in the success of an infant Charity, be it what it may, is harmony among the executive officers. It has been our misfortune in several instances to see miserable results flowing from discord; and even at the present moment the Orthopædic Hospital has become quite a by-word, from the dissensions which have arisen between various gentlemen connected with it. We trust that the medical staff of St. Mary's will never forget that union is not merely the bond of peace, but the very back-bone of success; that harmony and hearty co-operation among themselves will not merely shed an honourable lustre upon the hospital, but that it will set a noble example to all beneath them in authority, and to such students as may attend their wards. On it, indeed, the well-being of the Hospital mainly depends. If report speak truly, the funds are at present at a very low ebb; but if the medical staff set their shoulders to the wheel, and work thoroughly well together, they will set it rolling, and we hope to such good

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purpose, that it will carry along with it success, and elevate St. Mary's to the rank of one of the most useful, most prosperous, and best conducted of our numerous metropolitan charities.

THE INSTITUTE'S REFORM BILL.

From time to time, since the publication of the Bill for Medical Reform framed by the Council of the National Institute, we have pointed out the injury which must inevitably result to the Public and to the Profession should that Bill become law. With one exception, the medical journals have joined us in opposing the enactments of this ill-concocted measure. The solitary exception is the acknowledged organ of the Council of the Institute, and the property of some of its members, started for the purpose of making known the advantages of the Bill, and for no other cause than that we refused to sacrifice the real interests of the mass of the General Practitioners for the purpose of gratifying the ambition of a few. Not an argument we have adduced against the scheme of the Institute has been answered; true they have been noticed, but noticed only to be eluded. The reason they have not been answered being —that they are unanswerable.

Last week an independent contemporary, the *Medical Gazette*, after passing the various clauses of the Bill in review, drew the following conclusions as to what would be its effects:—

1st. Every Scotch and Irish practitioner, who did not possess the licence of the English College of Surgeons or Physicans, would be *compelled* to join the new College, and *pay the fee, or give up practice and leave the country.*

2ndly, All members of the College of Surgeons now acting as General Practitioners would be compelled to enrol themselves in the new College, and *pay the fees, or abandon this department of practice*, and keep to the bones and ligaments of pure surgery. They might occupy surgical offices, and practise as surgeons, *but nothing more.*

3dly. The present licentiates of the Society of Apothecaries are, as a body, ignored, and, if unregistered in the new College, they would not be permitted to occupy professional offices, nor grant professional certificates; and their names would be excluded from the General Practitioners' Registry, which, after the passing of the Act, is to be a sort of hand-book to all coroners, magistrates, judges, and other legal functionaries. "A question naturally arises," says the *Gazette*, "To whom are these extraordinary powers to be entrusted? So far as we can judge, these demands are made by only a small section of the Profession." No! not by a *small* section, but by a VERY SMALL section; for, at the last General Meeting of the Institute, jocosely said by the Editor of the *Institute* to have been "*numerously attended*," only twenty-one members, inclusive of officials, assembled. Verily the reception of the Bill by the Profession has been most enthusiastic! Blind and helpless, indeed, must a Home Secretary be, ere he could consent to be led by so insignificant a section of the Profession.

We cordially agree with our contemporary, who sums up an able analysis as follows:—"As it stands," says the *Gazette*, "it appears to us that the amended Bill would have the certain effect of creating a great and unjust monopoly in English practice; it would alienate Scotch and Irish licentiates, and render impossible the enactment of any common measure for the benefit of all medical practitioners in the empire." Well may he conclude, "THERE IS NO CHANCE OF SUCH A BILL BEING PASSED INTO A LAW."

HOMŒOPATHY AND THE SUNDERLAND GUARDIANS.

Mr. Potts, of Sunderland, is a comprehensive genius. Colossus-like, he stands with one foot on Allopathy and the other on Homœopathy. With one hand he holds a bolus, in the other a little globule. He receives with each hand the trifling recompence which his great exertions demand. To the pauper he says, "Choose; bolus or globule, all is the same to me as long as the returns are satisfactory." To his rich patients he dexterously extends one hand or the other, as he perceives occasion. The guardians of Sunderland, in choosing him for their Union doctor, must have wished that he "should be all things to all men," and have concluded, that to satisfy the caprices of their paupers was as useful a thing as curing them of their diseases.

We have hitherto been accustomed to find quackery a bold, unblushing jade, who flaunted, and ogled, and bullied for customers; but the homœopathic quack has become a more Janus-like personage, who can assume the appearance of propriety, or brazen it out as the demand may require.

Like a familiar prototype, between the two bundles it is hard to choose; and, as Mahomet cannot go to the mountain, the mountain is requested to come to Mahomet. The Sunderland Guardians were called upon to allow the doctor to permit the patients to choose a mode of cure for themselves. But, having some misgivings as to the capability of their pauper charge to discuss the relative merits of Mr. Potts's scientific flirtations; and, moreover, remembering that their medical officers held their appointments by virtue of allopathic diplomas, they very prudently declined the accommodating proposal. Whereupon Mr. Potts and a sympathising brother raise a clamour, and, with brazen tongues, denounce the allopathic Profession and its "contemptible ignorance," which they (the Pottses) will expose to the world!

Now, if we admit Homœopathy to be a correct, logical, probable, understandable system, and entirely incompatible with Allopathy, either must this very silly gentleman be humbugging the public, humbugging himself, or both.

Such men as Mr. Potts should reflect; and, if selfishness has not altogether mystified their reasoning powers, they will see that the world has respected manliness and consistency, even when in error; while he who sought to serve, for his own purposes, two masters or two systems, has been discarded by both.

As regards the belligerent brother Potts, we hand him over to homœopathic treatment. That which has been so successful in horses, cannot but be of service to another branch of the equine family.

MEMOIR OF DR. JOHN REID.

[Continued from page 126.]

The following extracts from letters written to Dr. Cormack by Dr. Reid, will show his kindness of heart, and the playful manner in which he unbent with his more intimate friends:—

"16th April, 1839.

"I have only a minute left me to write you, to acknowledge the receipt of your letter, and to state how much my loyalty is gratified at the prospect of the honour which is intended to be conferred upon the Queen by the Senior Potato.(a) It will form a new era in the history of Britain, and confound and astonish all

(a) The Potato Club seems to have been a society consisting of four members, instituted for small social suppers, and temperate symposia. Dr. George Newbigging, son of Sir William Newbigging, of Edinburgh, is often and affectionately alluded to by Dr. Reid in his letters, under the style of "Junior Potato." He was a young physician universally beloved, and of the highest professional promise. His brother, Dr. P. Newbigging, of Edinburgh, was likewise one of Dr. Reid's most chosen friends.

the disloyal vagabonds who so much abound at present, and confirm the wavering, and strengthen and encourage all good citizens."

"Royal Infirmary, 4th Sept., 1839.

"I was delighted to receive your letter from Florence after so long a silence, and felt much interested, as every true potato is in duty bound to do, in the account of the wanderings of the Senior, who, like another Pickwick, is perambulating the face of the earth in pursuit of knowledge and wisdom. . . . It is with feelings of unalloyed pleasure that I have to announce to the Senior, that a young Potato has, within the last three weeks, paid a visit to this world, and has deigned to become one of its denizens. Assuming, in your absence, your illustrious office, I have waited upon him to congratulate him on his arrival, and bestow upon him a parental blessing, after which he visibly kicked stronger, and roared more lustily, proving that in my hands it was not without efficacy. . . . The 'Edinburgh Pharmacopœia' has appeared, and is at present exciting a little sensation; for, while it is much praised by some, —among whom I may mention Douglas Maclagan, who has written a long review of it in the *Edinburgh*,—it has been attacked by others. Henderson and I are to have a conjoined paper in the next *Edinburgh* upon the Epidemic Fever; he furnishing the symptoms and treatment, and I detailing the morbid appearances. . . . Alas! the poor *écume de mer*, about which so much care, and deservedly so, used to be taken, is, instead of yielding its balmy fumes to delight its grateful master, now crumbling to pieces amidst the mud of the Saone. . . . You have doubtless, even at Florence, heard of the splendid tournament at Eglinton Castle. The scene, I believe, was gorgeous, but the weather on the first day was abominable. Murray has got up a capital burlesque of it in the Adelphi, he himself being the Knight of the Red—I beg his pardon—the Silver Herring, and Lloyd being the Knight of the Silver Penny, disguised as the Knight of the Boot-jack."

In the following letter, allusion is made to an event which caused some noise in Edinburgh at the time, and also to another circumstance,—his being brought forward as a candidate for the Anatomical Chair at Aberdeen against Dr. Handyside and Dr. Allen Thomson. The result is explained in the letter:—

"Edinburgh, 14th October.

"With regard to your proposed account of the 1839 medical institutions in Italy, I think it a very plausible idea, and would certainly recommend you to collect the materials. I should think it a matter of great importance for you to procure in writing as much information as you can from those officially connected with those institutions, as a stranger is very apt to overlook some things, and take up wrong impressions upon others.(a) . . . The young Potato is thriving in an astonishing degree since I pronounced the following benediction on him in your absence: 'May the blessings of all the true potatoes descend upon thee, and mayest thou inherit all their numerous virtues, and be thought, at some future day, worthy to have thy name honourably enrolled with theirs' . . . The story of Queen's College is too tedious and complicated an affair to detail here; but the principal circumstances connected with it are these. The private lecturers here were informed that they could not be recognised by the new London University for granting degrees, as individuals, but they would be if they were united in one or more schools. Upon this, various meetings were held, and the usual petty jealousies began to manifest themselves, and soon came to a crisis, when information came that they would be recognised as individuals belonging to the two Royal Colleges here. First one secession took place, and then a second, so that the members of the new Queen's College embraced very few more than the lecturers of the Argyle-square School. The name of Queen's College is still retained, very much against my wishes; and, though a charter has been talked of, there is precious little chance of procuring it, as you can readily imagine. You will, I have no doubt, be somewhat amused to hear of the various moves made by the private lecturers this winter. The two Lizars have gone down to our old premises in Surgeons'-square, immortalised by our experimental researches on creasote, nervi vagi, &c. Robertson and Henderson have migrated to Argyle-square, and Knox has sold Old Surgeons' Hall to the Fever Board, and has, with Campbell, joined us in Argyle-square. Some of the minor stars have disappeared in the turmoil thus occasioned, and for the present have no local habitation. Allen Thomson has been made a Professor of Anatomy at Aberdeen, with an endowment of 150*l.* a year. One of the Aberdeen Professors started me as a candidate, but the Lord Advocate, with whom the appointment rested, found no merit in me, and, as was fully anticipated, gave it to his own friends. I was not at all anxious for the situation, and would never have thought of applying for it, unless I had been enticed by certain representations made to me which were not realized."

(a) None of these observations were ever published.

The chair of Professor of Midwifery in the University of Edinburgh had been filled for very many years by Dr. Hamilton, a thorough specimen of the old school. He died Nov. 14, 1839, having resigned his office a short time previously. The following letters are full of interest, as bearing upon the events which followed.

"November 22, 1839.

"I sent you a very long letter to Florence, which I am sorry you have not received, as you would have found in it a considerable amount of local news which might have interested you. The most important medical occurrence which has happened here for some time is the death of Professor Hamilton, and the consequent vacancy in the Midwifery Chair. Simpson, Thatcher, and Campbell, are candidates, as well as Lee, of London, and Kennedy, of Dublin. Simpson is making a bold push for it; but I am afraid that it is no go, since Lee and Kennedy are such heavy metal. He is undoubtedly superior to his Edinburgh opponents; but the impression at present, as far as I can learn, is, that Lee is the man. It is an unfortunate thing for Simpson that old Hamilton did not hold out a few years longer, as his comparative inexperience in practical midwifery, which is the only objection that can at present be urged against him, would then in a great measure have been obviated. The professors seem to hanker between Lee and Kennedy. What may be the feeling of the Town Council I know not; but it appears that Lee is powerfully backed by Lord Melbourne, which ought to have some weight with a Whig Town Council. I ought also to mention, that Renton, of Pennycuick, and Macaulay, late Town Councillor, are among the candidates. . . . The young potato is thriving astonishingly. His papa, the Senior Physician, performed lithotomy yesterday on a boy, and conducted himself so admirably that I can with confidence recommend him to the senior, as worthy of the additional title of Senior Surgeon to all the Potatoes. . . . Allen Thomson is now Professor of Anatomy in Marischal College, Aberdeen, with an endowment of 150*l.* a year. P. C. is rather thin this year, and Knox attributes this, in a great measure, to your . . . with him."

"February 9, 1840.

". . . You state that you were not a little surprised at some of the news I wrote you of. I am certain that I have news to tell you which will astonish you still more. What think you of Simpson being now Professor of Midwifery in place of old Hamilton? He was elected last Tuesday, after a keen contest with Kennedy, of Dublin, and gained his election by a single vote only—16 voting for Kennedy, and 17 for Simpson. Thatcher, Campbell, Renton, and Marr, withdrew from the contest on or before the day of election. There has been a good deal of talk here about the propriety of Simpson's comparative inexperience; but this is an objection which will yearly lose force; and I have little doubt he will ultimately make an excellent Professor of "Howdyism." . . . If you don't hasten home soon, everything will be changed in Auld Reekie before you arrive, and you will find yourself considerably puzzled when you see Professors' chairs filled by new occupants, maids converted into wives, and young potatoes flourishing in hitherto barren soils. I am glad to think there is a prospect of your returning to Edinburgh soon, as I look forward with much pleasure to the satisfaction of smoking a meerschaum with you, and listening to your recounting your adventures by land and sea. . . . I have not yet heard satisfactory accounts of the microscope; I have missed it very much, as I wished particularly to satisfy myself of a supposed important discovery which I suspect I have made in the inner surface of the uterus. This I will explain to you afterwards, if you think of returning by Paris."

After lecturing for five sessions at Edinburgh, the appointment of Chandos Professor at the University of St. Andrews was obtained by him on the 13th of March, 1841. His election was principally promoted by Professor Jackson, and he gained it by a majority of eight to three, his opponent being Dr. Alexander Lizars, now of Aberdeen.(a) In October of the same year he took up his residence at St. Andrews.

The following letter, to Dr. Arpthorp, bespeaks the feelings with which he regarded this change in his prospects:—

"Royal Infirmary, Edinburgh, June 23, 1841.

"I beg to return you my best thanks for your kind congratulations on my being appointed to the professorship of anatomy and medicine at St. Andrews. I expect that it will be a pleasant situation, as the duties are light, and I have an endowment of about 300*l.* a year, independent of any other source of emolument.

(a) Dr. A. Lizars succeeded Dr. Allen Thomson at Aberdeen.

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There is also a very extensive library, and a fund of 650*l.* a year for purchasing new books. There is also excellent society in the place, so that, on the whole, I have some reason to be satisfied with the appointment. The place is also, as I hope to have the pleasure of showing you some day when you visit your old friends in the north, rather a pleasant residence. . . . I do not intend to leave the infirmary until the end of September, when I anticipate the pleasure of making a short visit to London. I shall, in all probability, be in London in the first week in October."

To Dr. Cormack he subsequently thus addressed himself, relative to his position in St. Andrews:—

"I have no intention of being in your neighbourhood soon. I have become medical attendant to several families in St. Andrews, which will yield me about 150*l.* a year, and thus eke out my small income; and, though this does not occupy much of my time, yet it necessitates my presence during the whole year. I hear little of Edinburgh news now, and I feel that as my separation from it is prolonged I feel less and less interest in its scandal, gossips, envies, and strifes. Now that the Whigs are in office, and I have no chance of Glasgow,(a) and no probability of becoming a possessor of an Edinburgh chair. Even if I had a good chance, seeing that I think myself better as I am, I have made up my mind to settle down here for the rest of my life. Hitherto I have had no reason to dislike the place. Unannoyed by professional rivalries and squabbles, no more work than what I can easily overtake, and an income rather more than sufficient to maintain myself and family in comfort, and enabling us to live in the same style with our neighbours, it would be folly in me to repine at my lot; and neither do I."

The following extract from the Minutes of the University of St. Andrews, shows the duties distinctly assigned to Dr. Reid in his professorship,—duties which he fulfilled with the utmost honour to the University with which he had become connected:—

"21st April, 1841.

"Sederunt, Mr. Jackson, Rector; Principals Sir D. Brewster and Haldane; Drs. Hunter, Ferrie, Buist; Messrs. Alexander and Duncan; Drs. Cook and Anderson.

"The University having, at a former meeting, elected Dr. John Reid to be Chandos Professor of Medicine and Anatomy, they require him to be admitted by the Principal and Masters of the United College as soon as may be convenient; that the Rector should intimate this deed of the University to the said Dr. John Reid, and that the clerk should furnish him with a copy of the minute of his election.

"It was agreed, 1st, that the Chandos Professor shall be a teaching Professor, who shall open classes to be regularly taught during the session of the United College, for the instruction of those students who may apply to him in the principles of medicine and anatomy, with a view to make an *anuus medicus;* and likewise in the principles of physiology, zoology, or such kindred branches as may be found most useful in an academical course.

"2. That he shall be bound, as a part of his duty, to attend gratuitously such students of both colleges as may stand in need of medical advice.

"3. That the Chandos Professor shall assist the University in the trial and examination of those persons who may present themselves as candidates for degrees in medicine.

"4. That the fees or dues arising from degrees in medicine having been always under the direction and disposal of the University, there shall be paid to the Chandos Professor, out of the money received from every degree of M.D., aye, and until the University shall see meet to alter the same, the sum of two guineas instead of 1*l.* 13*s.* 4*d.*, which had been assigned to his predecessor in office.

"5. That the above regulations shall be communicated to Dr. John Reid, and that he shall be required, before his admission, to express, by his signature, his assent to them and to the other regulations contained in the foundation of the Chandos Professorship.

"(Signed) T. T. JACKSON, Rector."

The University of St. Andrews, we may remark, is the most ancient in Scotland, having been founded in 1411. The seat of the University was the spot on which St. Mary's College now stands, and was called the Pædagogy. It is said that a school had existed there even before that institution was established. Among other things St. Andrews is memorable as having witnessed the destruction, in one day, by a furious mob, excited by a sermon of John Knox, of a cathedral, the building of which occupied 160 years! The Scottish reformers were impetuous men; but their maxim was perhaps a correct one—that "the birds could not be dislodged unless the nests were destroyed!"

It yet remains for us to sketch the most interesting and instructive part of Dr. Reid's life.

The position in which Dr. Reid now found himself at St. Andrew's, though pecuniarily satisfactory to him, was very different from that to which he had been accustomed. From the bent of his mind, not less than from habit, occupation was necessary to him; but he looked in vain for those anatomical and physiological inquiries which he loved so well. In the words of Dr. Bennett, "There was no medical school properly so called, no hospital, no subjects for dissection, no bodies to examine. Deprived of the conversation of his former fellow-teachers in medicine, and of the stimulus to inquiry which such conversation tends to produce, it was still necessary for him to find a subject for original inquiry on which to expend his mental energies. The bay of St. Andrews is celebrated for its marine productions, and, seizing on the advantages which lay within his reach, he commenced another phase in his scientific career, and became a naturalist. Having obtained one of Chevalier's best microscopes, he studied histology, and was soon acquainted with the minute structure of animals. He studied the habits and mode of development of the mollusca, crustacea, and fishes in the adjacent seas. He dredged for them off various parts of the coast. He kept many animals in his house for years, and minutely watched their manner of re-production; and, at the same time, made himself master of all that had been written regarding them in this and other countries."(a) Thus we are indebted to his residence at St. Andrews for many valuable and original inquiries into the development of the mollusca. The papers, (which first appeared in the *Annals and Magazine of Natural History*, and were subsequently reprinted in his "Researches,") were anatomical and physiological observations on some zoophytes, especially *Cellularia Septans, Serupoea and Avicularis, Pedicellina Echinata, Chrisea Chelata, Campanularia Dumosa, Alcyonidium Parasiticum*, and *Flustra Avicularis*, on the Development of the Ova of Nudibranchiate Mollusca, and "on the Development of the Medusæ," to which is added an account of a new Actinia, for which he proposed the name of *A. Cylindrica*. This polype was found in St. Andrew's-bay, immediately after it had been thrown ashore in a storm, and was kept alive by Dr. Reid for three days.

The acute sufferings which cast a gloom over the latter part of his existence, did not extinguish his love for these favourite pursuits; and even so late as June, 1849, but two months before his death, there appeared in the *Annals and Magazine of Natural History*, a most careful and elaborate account of the Vogmar, *Vogmarus Islandicus*, a most rare fish, which had been cast ashore in the Frith of Forth, and, happily for science, fell into his hands.

The year 1842 was memorable in Dr. Reid's career by his visiting Germany, where he was brought into contact with Müller, Weber, and other distinguished German physiologists. He has often been heard to speak with pleasure of that visit, as he found that his "small efforts" as he called them, in physiology, had been read by the great masters in the science, and fully appreciated; there can be no question that he felt his labours to extend the boundaries of theoretical medicine, were far beyond mediocrity, and that he had only to continue his exertions to secure for himself, as an original observer, a niche in the temple of fame.

Intending to go to Hamburgh, and thence to Berlin, he proceeded in the first instance to Bristol to pay a visit to his friend Dr. Carpenter. Here an accident befel him, which well nigh cut the thread of his valuable life. He was much interested in perambulating the streets of that busy city with Dr. Carpenter, and, whilst crossing a street, happened to pass close to a wagon on which was piled up a huge load of large empty boxes, very insufficiently secured by a single cord. Just at that instant, a sudden jerk broke the cord, and threw off one of the boxes, which fell upon Dr. Reid's shoulder with a force sufficient to lay him prostrate on the ground. Had his position, or that of the wagon been different by a few inches, his head would have received the blow, and the consequences must have been fatal from the force of the stroke of the weighty box. As it was, he mercifully escaped with some severe bruises.

The following testimonials from Müller and Tiedemann, speak volumes in testimony of the European reputation Dr. Reid had already acquired; and if there were further proof required of their esteem, it was afforded in the cordial greeting he received from them:—

"Dr. John Reid is, by his labours in the field of anatomy and physiology, known throughout Germany as a most distinguished cultivator of science. The results of these labours have contributed

(a) The reference is to the Chair of Anatomy in the University of Glasgow then filled by an aged and infirm incumbent, and now so worthily occupied by his immediate successor, Dr. Allen Thomson.

(a) *Edinburgh Monthly Journal of Medicine.*

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to the progress of science, and afford solid instruction to those who make themselves acquainted with them. Dr. Reid's experiments in the field of physiology are distinguished by their accuracy and a correct method, and lead to the conviction that this philosopher occupies a prominent rank amongst the most distinguished experimental physiologists. With regard to Dr. Reid's claims to a Professorship of Anatomy and Physiology, commensurate with his merits, and an enlarged sphere of action fit for his talents, the opinion of his professional brethren is expressed in his favour with every mark of regard and complete acknowledgement; and it affords me sincere pleasure and gratification to state this opinion as my sincere conviction.

"Dr. John Muller,
"Professor of Anatomy and Physiology,
Director of the Anatomical Museums
at Berlin."

"Hiedelberg, Aug. 30, 1840.

"The various anatomical, physiological, and pathological memoirs, which Dr. John Reid, of Edinburgh, has from time to time published, exhibit extraordinary perseverance and talent, combined with an exactitude seldom met with in similar researches. His laborious and successful endeavours to elucidate the functions of the eighth pair of nerves, have, in an especial manner, fixed upon him the attention of anatomists and physiologists, and led to the desire that the individual who has already done so much should enjoy a position which would render his future exertions more extensively useful to the interests of science. I can feel no hesitation, therefore, in stating, that I consider Dr. John Reid eminently qualified, by his zeal and knowledge to throw a lustre on the Professor's chair to which he aspires."

"Dr. Fred. Tiedemann,
Professor in the University of Heidelberg."

It was during his sojourn abroad that the chair of physiology became vacant in Edinburgh, and that his name was brought forward by Dr. Duncan and others at a late period of the canvass. The closeness with which he pressed Professor Allen Thomson at the poll showed that if he had been early in the field success might have crowned his efforts. The votes were respectively sixteen and fourteen, if we are correctly informed. The adverse decision disappointed him but little, for he had come forward rather in compliance with the wishes of his friends, than from any desire of his own; but, having entered the field, he felt it incumbent upon him to do his best.

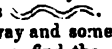
Men of science are generally but indifferent diplomatists, (although the most eminent *diplomate* in England observed to us the other day, that diplomacy was essential to medicine,) and Dr. Reid was no exception to the rule. It was necessary to canvass the Town Council—worthy men, no doubt, but the worst possible judges of the merits of such candidates as were then before them. This proceeding Dr. Reid performed with a very bad grace. In the first place, he considered it quite *infra dig.*; and in the second, his appearance at that time was by no means in his favour. His inattention to the niceties of dress was the subject of comment amongst the *bourgeois* of the Auld Reekie Council, and his hair was worn long and somewhat dishevelled. There was a joke current to the effect that he bought a coat from one councillor, had his hair cut by another, and procured a pair of boots from a third; and so he lost his foreign appearance and patronised the men in office! This story, however, was only a joke.

He received the tidings of defeat with a laughing face, remarking, "It's just as I expected it would be." In company with a particular friend, he walked across Bruntsfield Links immediately afterwards, and rejoiced, rather than otherwise, at the decision, saying, that he felt a great load off his shoulders, as the canvassing and lionising for the purpose were a great bore to him. Whilst the two friends were walking towards Morningside, and he was congratulating himself on the result, who should cross their path but Allen Thomson, hastening to announce his election at Canaan Cottage, where his father lived. Dr. Reid immediately walked up to him, and, with a face as bright and cheerful as his heart was honest, said to Allen, "I can assure you my congratulations are sincere, and I hope you will find the chair everything you can desire." Dr. Thomson's reply was equally pleasant, adding, that the news which he was about to convey to his anxious father would be made still more agreeable by his being able to add, that his opponent had already wished him joy on his way thither. The friend who was with Reid observed,—"On no occasion do I remember his hearty face with greater pleasure than at the moment he said to Allen, 'You have my best wishes;' and at no time did I admire more his thoroughly honest and honourable character. There was no hypocrisy or putting on there. The fountain head was pure, and the words of friendship flowed pure from it. It was this thorough goodness of disposition and singleness of heart which endeared him to his numerous friends. Whether his letters were playful or grave,—and we have perused very many,—there were always the same sentiments expressed—kindly interest in their concerns, justice to others, and a complete absence of self.

The following interesting letter, written in 1843, has reference to a paper by Dr. F. Renaud, which appeared in the *Edinburgh Monthly Journal*. Allusion is made to it by Dr. Reid in the appendix to his paper on the Blood-vessels of the Mother and Fœtus. Professor Goodsir's views are contained in his anatomical and pathological observations.

"St. Andrews, 4th Feb., 1843.

"My dear Cormack,—I sent you a note last night, which, if you received it, would inform you that my tables can be put right with infinitely less trouble than I at first supposed, a fact which has afforded me much consolation.

I have read over the paper by Frank Renaud, Esq., on the Structure of the Placenta;(a) but, whether it be deficiency on the part of the author, or the effects of an annoying headache on my part, it appears to me not a little confused and contradictory. In p. 186 (beginning of second paragraph) the author states that the materials which pass from the blood of the mother into the placental vessels of the fœtus cannot be the means of supplying animal heat, for the quantity of carbon existing in the blood is only sufficient for the re-formation and construction of parts already unfit for further purposes. Near the bottom of the same page, we are told that the thymus gland is destined for the express purpose of supplying this non-nitrogenised material, and that its function is partially that of the female mamma. Now, where does the carbon come from which enters into the formation of these carbonaceous matters separated from the blood of the thymus gland? It cannot come from the blood of the mother; for the author tells us it cannot. The only two other imaginable sources are—1. That the thymus gland has the property of forming from other elements the element of carbon; and, 2. That the carbon resulting from the re-absorption of the matters formerly deposited in the tissues for their nutrition, or, in other words, the carbon contained in the materials taken up by the process of interstitial absorption, and poured by the lymphatics into the blood, is separated by the thymus gland. The first of these suppositions will not, I am afraid, find many supporters; and, as the author appears to be of the school of Liebig, will, I have no doubt, be repudiated by him. If we fall back upon the second supposition, I have met with nothing in the paper showing why such an organ should be necessary in the fœtus and not in the adult; and I cannot at present perceive any reason for it in the one which does not apply to the other. It would be easy to point out a difference in those respects in the mamma. It is quite possible that all this difficulty in perceiving the completeness of the author's reasoning may arise from the difficulty which I at present feel to bring my mind to follow a continuous train of thought. Mr. Renaud has not, in my opinion, exactly stated my sentiments regarding the placental vessels. I may mention, in the first place, that my paper was not upon the arrangement of the placental vessels; but, in prosecution of my views of the structure of the placenta, in relation to the vascular system of the mother, I had to make some general remarks upon them. I, supposing that Weber did not represent them as lying in the same sheath, criticised this statement; but, finding out that I had mistaken Weber, I have publicly mentioned the cause of my mistake, and retracted the criticism. I certainly have not retracted my opinion, that the fold of the chorion envelopes one arterial and one venous radicle running side by side and terminating in a blunt extremity. (*Vide* page 184 of Mr. Renaud's Paper, bottom of the page.) I know that when I admitted that the representation given by Weber was perfectly correct, I did not state anything which would lead one to believe that in some cases, as I am satisfied, the vessels run side by side, and that in other cases, as represented by Weber, they run a small distance apart. However, the whole affair refers to a trifling anatomical arrangement without any physiological importance or application, and not worth the disputing about. I am sick of this trifling dispute, whether or not the artery of the placenta and its returning vein run thus = or thus  . My humble opinion is, that the sometimes run in one way and sometimes in the other; just as in other cases where we may find the artery running straight in one limb, and in the other tortuous. . . . There is nothing in his paper at which I can take offence, and I do not believe he has put down anything which he does not fully and conscientiously believe.

(a) Mr. Renaud's paper appeared in the *Edinburgh Monthly Journal*, and Dr. Reid's letter refers to the MS., which Dr. Cormack submitted to him before publication; but which, after some private correspondence between Dr. Reid and Dr. Cormack, appeared verbatim, as originally written by Mr. Renaud.

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Goodsir is bringing out a paper which will set the thing in a clearer light, touching on many points not alluded to in the present paper. . . .

"Yours very sincerely,

"JOHN REID."

[To be continued.]

GENERAL CORRESPONDENCE.

DR. GREGORY ON "THE RELATION OF THE EXANTHEMATA."

[To the Editor of the Medical Times.]

SIR,—In your Journal of the 18th ultimo, is a Paper by Dr. George Gregory, "On the Relation which the Exanthemata bear to each other," in which the author comments rather severely on Dr. Knox, of Strangford, for his belief in the identity of the small-pox and the cow-pox.

Not having noticed any reply to the above-mentioned Paper, and considering the subject worthy further observation, I venture to offer a few remarks for your notice, and for publication if you should think them of any value.

I would first remark on the statement of Dr. Gregory, that the eruption known as the grease in the horse, and that known as the *variola ovina* or sheep-pox in this country, and *clavellée* in France, are capable of producing the cow-pox in man. It may be from recent "facts," "lately demonstrated," that such is the case, but, as these facts are not mentioned, we are at present left in a condition of doubt as to their validity or practical application to the case in point.

Mr. Youatt says, "A pustular disease has been communicated by contact with the matter of grease, but it resembled far more a spurious vesicle than the genuine cow-pox. In a great many instances, however, nothing that could be considered as bearing any analogy to the true vaccine disease followed inoculation with the matter of grease." He further states that it would be difficult to find a veterinary surgeon, much practised in the treatment or investigation of these diseases, who believes that there is the slightest connexion between the grease and the cow-pox.

Then, as to the sheep-pox, Dr. Gregory says,—"Matter taken from the sheep affected by this disease and applied to man, appears as cow-pox;" but I find, in a work on Variola Ovina, by Professor Simonds, of the Royal Veterinary College, published as lately as 1848, that the experiments of Sacco are not conclusive on this subject; on the contrary, that Hurtrel d'Arboval in France, and Messrs Ceely and Marson in this country, have entirely failed in producing cow-pox from the matter of variola ovina; indeed, Professor Simonds himself says, "The experiments we have instituted to settle these questions have confirmed the assertions of Hurtrel d'Arboval." The latter says—"Many children have been *ovinated* several times in succession, *but it has invariably failed*.(a) These same children have afterwards been vaccinated, and at the usual time the vaccine disease has been developed, and has passed regularly through its course."

Now, if any recent experiments have been made by which those above-mentioned are rendered nugatory, I must confess they have not come under my notice; it would therefore, I think, be rendering a service to the Profession, if the medical press would give publicity to them, as I imagine many persons must be in the same uninformed state as myself. On this head I wait the result of my application. In the meantime it may be remarked, that indirect, or rather, perhaps, distinct testimony confirms the non-contagious property of the ovine pox to man; and this same testimony also seems to contradict the notion of Professor Simonds, that the variola ovina had never made its appearance in this country until the year 1847.

In Dr. Thomas Fuller's work on the small-pox is the following:—

"There was, about the year 1710 or 1711, upon the South Downs in Sussex, a certain fever raging epidemically among the sheep, which the shepherds called the small-pox; and truly in most things it nearly resembled it. It began with a burning heat and unquenchable thirst; it broke out in fiery pustles all the body over. These pustles maturated, and, if death happened not first, dry'd up into scabs about the 12th day."

"It was exceedingly contagious and mortal; for where it came it swept away almost whole flocks. But yet it could in nowise be accounted the same with our human small-pox, because it never infected mankind."

(a) The italics are my own.

The testimony of Dr. Fuller as to the nature of the disease would most certainly tend to confirm the notion that the South Downs really suffered from sheep-pox at the time named; for the argument, that mankind did not contract the disease from the sheep, is quite invalid in determining the non-identity of the small-pox and variola ovina, or rather, that they are not diseases of the same type, since we know that the latter is not communicable to man, and yet that it is a disease in every way resembling the small-pox of the human subject. We may thus, I think, conclude that, as the course of the disease which affected the sheep in 1711 appears to correspond exactly with that which attacked them in 1847, the affections were identical.

But the point in Dr. Gregory's paper to which I wish particularly to refer, is that concerning the basis of his belief of the non-identity of cow-pox and small-pox. He says: "Plants bear relationships to each other varying in degrees. So do diseases. Diseases may be allied without being identical." Further on: "Calomel and corrosive sublimate have a common origin in chlorine and mercury. We call them by the cognate appellations of the chloride and bichloride of mercury; yet what chemist would venture to call these substances identical. As calomel is to corrosive sublimate, so is cow-pox to small-pox."

It is indisputable, that the difference of opinion concerning the identity or non-identity of small-pox and cow-pox rests solely on the inscrutable nature of the disease-producing matter.

The comparison of the relationship of plants and chemicals with that of the essence or matter of disease, though including the possible range within which comparison may lie, can hardly be said to settle the question of identity or non-identity. We want here no quibble on words,—we seek truth.

If we investigate the subject in reference to the comparison with plants, we find, that though we sow the same seed difference of soil may modify the result. Cultivation tends to change the appearance and character of vegetation, though the germinating element may have been the same for all the varieties which present themselves to the view of the experimenter. Fries has shown that not only species but genera have been formed out of the development of *identical* germe. Nees von Esenbeck has also given testimony to the same fact.

Further, if we may believe what is stated concerning the cropping down of oats during the summer and autumn of one year, and that on the close of the ensuing summer a thin crop of rye is the result, we can safely affirm that identical germs do not always exhibit identical manifestations, and that various circumstances may influence the determination or limit the progressive stages of vegetable development. Embryology, whether animal or vegetable, acknowledges the existence of a law to this effect.

The chemical notion, that "as calomel is to corrosive sublimate so is cow-pox to small-pox," does not, to my mind, at all interfere with the identity of the material agent as the source of the two diseases. Speaking of these substances chemically, each has mercury as its base, and this is the element or basis of identity. Thus, if we take a portion of bichloride of mercury, and by a certain process deprive it of one equivalent of chlorine the identical mercury remains, though it is now in the form of a chloride.

Let us now pass to the effects of this agent on the body. If ptyalism be induced, whether by the bichloride or chloride of mercury, would any one doubt as to the identity of the agent? Would it be incorrect to say that mercury was the active ingredient, and that to it alone could the effect be ascribed? Again, if for the cure of chancre one person employs blue pill, another grey powder, and a third calomel, and each succeeds in curing his patient, would any one be bold enough to say that the remedy was not mercury in each case? No one can deny that mercury was the agent, and, consequently, none can deny that the remedy in the three instances was identical. It is quite certain that blue pill is not calomel, nor calomel corrosive sublimate, yet the active ingredient in each is mercury, and, when obtained in the metallic state, the identity of the metal in the three forms of combination cannot be doubted.

The infant is not the lad, nor the lad the man, yet they are the identical person. The life of a being, from its first existence to its death, may be represented by a line,—the adjuncts or addenda to that being do not interfere with its identity. The properties of an elementary molecule of mercury are as inherent and unalterable to its being as are those of any other form of unity. In concluding the subject of identity, I cannot help referring to the unsatisfactory allusion made to Mr. Walker.

Yet one word more; the "common sense of the world" prompts me to say, in justice it must be acknowledged that Dr. Knox intended to convey distinctly to his readers the following facts:—1st. The small-pox and cow-pox have their origin in identical germs; 2nd. That the force or power these germs exercise over

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the animal system is an identical force, differing only in extent and duration; and 3rd. That the circumstances which modify the effects of any given elementary agent have no power whatever in destroying its identity.

I trust that the interpretation I have put on the language of Dr. Knox is such as he intended to be conveyed, and that if it goes in any way beyond his views and intentions, or in opposition to his judgment, he will pardon the liberty I have taken in enlisting myself under his banner, and in expressing my conviction that his pamphlet on vaccination and re-vaccination is a timely and most valuable digest of the whole range of this subject.

I am, &c., INQUISITOR.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

[To the Editor of the Medical Times.]

SIR,—During the last twelve months you have been zealous in your endeavours to reform the abuses which exist in the election of officers of the Royal Medical and Chirurgical Society. You will not, perhaps, consider it out of place to permit me to call the attention of the Fellows, through your pages, to the ensuing election of office-bearers on the 1st of March. Of the respected surgeon proposed as president I will say nothing. His merits, as well as those of the gentlemen spoken of as being more eligible, have, I believe, already been sufficiently canvassed by many influential Fellows. To the new vice-presidents, Dr. Mayo and Mr. Shaw, there are very strong objections. The objection to Mr. Shaw, although strong, will depend on the election of secretaries. It is already well known that Mr. Hawkins (to whose unremitting attention during the recess the very great alterations, much to the comfort of the Fellows, are in a great measure owing) retires from the secretaryship. Mr. De Morgan, who I have no doubt will make a very efficient, though probably not very courteous, secretary, is to be proposed by the Council as his successor, and it is said that Dr. Thompson will continue as medical secretary. It surely is not fair that Middlesex Hospital should be thus represented; by this arrangement in the Council three of its officers filling important offices. To Dr. Mayo the objection is, that there are thirteen physicians who, by seniority, as well as usefulness to the Society, have stronger claims than he has, and who have never filled the office of vice-president. They are—Drs. Ager, elected a Fellow 1814; Alderson, 1826; Ashburner, 1817; Barker, 1833; Cursham, 1836: Darling, 1820; Henry Lee, 1823; Moore, 1828; Pidduck, 1836; Roberts, 1821; Stroud, 1827; Todd, 1834: Webster, 1835. Every one of those gentlemen are more eligible than Dr. Mayo, and certainly not in any way inferior to him. What I have said regarding the secretaryship, is, I think, sufficient to induce the independent Fellows to solicit Dr. Basham to allow himself to be put in nomination as medical secretary. I have a word or two to say of the inferior position gentlemen engaged in general practice are forced to occupy. From their numbers in the Society, it is but right that there should be one vice-president from their body, and at least two members of Council. It is hoped this suggestion will not be forgotten at the ensuing election. With one exception, I believe, their position has never been noticed at the annual meetings.

In conclusion, there is one other matter in connexion with the Society to which I wish to draw your especial attention. In looking over the list of homœopathic practitioners in this year's *Medical Directory*, I find two of them are Fellows of the Medical and Chirurgical Society, viz., James Manby Gully, Holyrood-house, Great Malvern, and Amos Henriques, Upper Berkeley-street, Portman-square. Surely the names of these gentlemen ought not to be allowed to remain in the list of Fellows. Leaving them to your tender mercies, I am, &c.,

A FELLOW OF THE SOCIETY.

SELF-SUPPORTING DISPENSARIES.

[To the Editor of the Medical Times.]

SIR,—I am induced to trouble you on the subject of Dispensaries, as you have not yet, from *à priori* reasoning, either approved or condemned them, and that we may, therefore, hope from you a more unbiassed and valuable judgment. Let me add to this the fact of my being a subscriber of some eight years to the *Medical Times*. I write not for publication, but to obtain some information, and perhaps to impart some, as, amid the cares of an editorial life, you may not perhaps be acquainted with the minutiæ that make up some portion of the sum of a country general practitioner's life. I have been appealed to by a clergyman of the town in which I live to aid in the establishment of a dispensary, (self-supporting I cannot call it, while there are contributions towards its support from persons not availing themselves of its advantages,) let me call it a provident dispensary. I am unwilling, without information, and in face of the furious diatribes to be found elsewhere, to implicate myself. Mr. Jones, of Derby, has kindly sent me the rules of the Society to which he is attached, but from the Secretary of the London Society I can get no reply to a request for a similar act of politeness.

Can you tell me where I may obtain a copy of rules and a general summary of information. It is important to know whether, in the working of similar institutions, the benefits have been strictly confined to the classes for whom they were originally intended. In this it is notorious that benefit societies have been a complete failure. I am medical officer to several societies of this description, in which are to be found captains of first-class foreign trading vessels, respectable tradesmen, innkeepers, and persons from the various sections of middle-class life, who are attended per year for the stipend of 4s. or 5s. per family; and for the appointment of surgeon to such a club, surgeons, physicians, and general practitioners all struggle. In one to which I am attached, forty guineas is paid per annum for attendance and medicines on 200 families, of which number at least one half are well able to pay the ordinary fees for medical attendance. Supposing each of these families to contain four individuals, which they certainly average, we shall have 1s. per annum as the remuneration. Making a hasty calculation of the only data in my possession of the so-called self-supporting dispensaries, I found the average pay per case to be between 1s. 6d. and 2s. per annum, and this without medicines and appliances, which is a somewhat considerable item in the attendance upon such societies.

It has hitherto been impossible to accomplish any good in the way of reforming the medical relief at these clubs, from the great competition—not on the score of remuneration, but from an idea (too often a mistaken one) of their being the medium of introduction to a large general practice. My main object is to know, by the aid of your means of information, the likelihood of making these dispensaries so act on benefit clubs as to take up medical relief in their stead, and to confine its operation to those portions of the community who are really unable to pay ordinary medical fees. Highly appreciating your labours in the cause of science, and deeply assured of the benefits you are conferring on the Medical Profession in your admirably conducted journal,

I am, &c., W. H. M.

[To the Editor of the Medical Times.]

SIR,—Finding your answer to my note of January 27 in last Saturday's number, stating your pages were open to any communication from me, I beg to thank you, and also to avail myself of the privilege. I took the liberty of asking *your opinion* of self-supporting dispensaries. I am sorry I had not seen the number for December 14th, which, by some accident, did not then come to my hand. I have this day seen it, and read with considerable satisfaction your opinion of, and judicious objections to, such schemes, as well as your promise to bring the matter forward on any communication being made to you. I therefore again write to you, and beg to trouble you with the following request, that you will endeavour, through your Paper, to obtain answers from the Profession to the following questions respecting self-supporting dispensaries:—The names of the towns where they are at present in operation. Do they succeed; that is, do they answer the end desired by medical men? What is realised per case? What are the weekly payments of a family? What are the privileges of a subscriber? Your attention to the foregoing request will greatly oblige,

Yours, &c.,

Woolton, near Liverpool. J. ARMITAGE PEARSON.

[We gladly insert the foregoing communications, because they refer to a subject of great importance to the interests of the hard-working General Practitioner. The utility or evil of self-supporting dispensaries is a question that is daily forcing itself more obtrusively upon public notice; and there can be no doubt that there is a much larger proportion of medical men now than formerly who are favourable to these institutions. This change of opinion is owing partly to the greater prevalence of discontinuing to charge for medicines, and partly to the passion for association and organisation which characterises all orders of society. There are two classes of practitioners who would be most likely to approve of self-aiding dispensaries,—those who live in poor localities, but, not keeping open shops, have not the advantage of receiving ready

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money for their minor services, and annually lose a considerable amount by the defalcations of their poorer patients; and those who, having some experience of the injurious operation of the ordinary dispensary system, with benevolent sympathies, and an ardent zeal to benefit both the Profession and the public, desire to organise a more equitable and perfect system of medical administration. We believe, that if a good system of provident dispensaries, under the immediate government of medical men, were brought into operation throughout the country, it would tend very much to destroy the present club system, which, by the competitive struggle it engenders, lowers the amount of payment for medical service; also to counteract the evils resulting from the promiscuous charity afforded by our dispensaries and hospitals in large towns; and, more than all, check the growing custom of medical shopkeeping, which, for the want of some system of organisation, is now a necessity, and, however it may be excused, deteriorates the character of our Profession. We do not advise our readers to shut up their shops without some kind of compensation, for that would be instant ruin; but we would counsel them to agree upon some plan which would obviate the necessity of redeeming their fortunes by the loss of their honour. As, however, we do not anticipate that provident dispensaries will be instituted with sufficient universality to influence to any great extent the present modes of medical practice, we shall watch with vigilance every proceeding in relation to them that may come within our observation; for, if they be established upon an imperfect plan, we can conceive that they would prove as fruitful of evil as of good, and merely perpetuate the disadvantages of the existing club system. We hope that answers will be fowarded to Mr. Pearson's queries, that the Profession may be enabled to come to some conclusive opinion. Mr. Smith, of Southam, will doubtless be able to afford important information in reference to the operation of these Dispensaries in the various towns where he has succeeded in establishing them; and it will be our pleasure to be the medium of communication of such facts as our readers may have in their possession and desire to make known.

If W. H. M. will address Dr Stewart, 76, Grosvenor-street, we are sure he will receive a polite and speedy reply to any inquiries on the subject he may make.—Ed. *Medical Times.*]

REPORTS OF SOCIETIES.

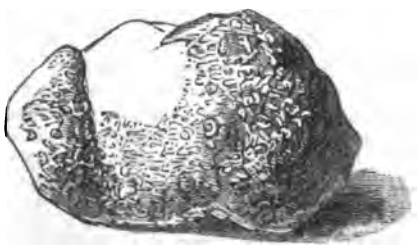
MEDICAL SOCIETY OF LONDON.

Dr. J. R. Bennett, President, in the Chair.

LARGE CALCULUS IN THE URETHRA.

Mr. Henry Smith showed a calculus weighing upwards of half an ounce, which had been removed from the urethra of a man aged 36, by Mr. Dyer, of Ringwood, in the year 1839. The patient had suffered from the symptoms of stone in the urethra for ten years, but had never mentioned them, until he came to Mr. Dyer. Latterly he had found that the foreign body had increased in size, and caused intense pain, by which he was driven to seek advice. The calculus was lodged just behind the glans, where a false opening existed, through which all the urine passed. It was merely necessary to enlarge this opening when the enormous stone then exhibited was removed.

Sketch of the Calculus drawn by Dr. Westmacott, now in the possession of Mr. Fergusson.



Mr. Smith, on a recent visit to Mr. Dyer, had, through that gentleman's kindness, been able to see the patient; and he found that there was still a large quadrangular opening in the situation of the lodgment of the calculus, and that all the urine escaped from that orifice, whilst the urethra anterior to it was entirely, or almost entirely, closed. He considered the case interesting, from the very large size of the stone. He had not seen reported an instance of the same kind, (at least of so large a one.) It was interesting, also, to know whether the calculus was near this size when it escaped from the bladder, or whether it had not escaped as a very small one, and then increased to its present magnitude; the latter, probably, was the case. The composition of the calculus was phosphatic.

NECROSIS OF THE TIBIA.

Mr. Dampier read the details of a case of necrosis of the tibia. M. A. M., a little girl of scrofulous diathesis, aged 3 years, fell through an iron grating in February, 1850, severely bruising the tibia of the right leg, for which she was treated by a medical man. At the end of three weeks she had nearly recovered, when she fell through a hole in the floor, and again injured the same bone. After this she was under treatment by several medical men, and at different dispensaries, and at an hospital, up to the commencement of December last, when she came under his (Mr. Dampier's) care. The limb was generally swollen, and the tibia, on examination, was found much larger than its fellow, from the extensive deposit of a new shell of bone. There were two cloacæ at the junction of the middle with the upper third of the tibia, and a probe passed into either readily detected an extensive portion of dead bone, which was becoming loose. He ordered a tonic treatment, with cod-liver oil, and generous but not stimulating diet, under which, in six weeks, she was greatly improved in her general health. There was an abundant discharge of pus, and, the necrosed bone feeling more moveable, he determined to remove it, which was done on the 21st of last month, with the assistance of Mr. Coulson. He made an incision through the soft parts, of a semicircular form, including the cloacæ, and reflected the integuments in a flap. This mode of proceeding, in his opinion, has a great advantage over the straight incision, which is generally used, by at once affording ample room for removing the sequestrum, without further wounding the integuments, and does away with the necessity of assistants putting their fingers into the wound to retract the soft parts. He succeeded in removing the sequestrum entire: it comprised nearly the whole length of the shaft of the tibia. This case is interesting, inasmuch as such extensive necrosis in so very young a subject is seldom met with, and, when it does take place, the process of destruction goes on with great rapidity. The new bone was fully developed, and the little patient is now nearly well.

THE USE OF THE SPECULUM.

Mr. Greenhalgh read a paper on the use of the speculum. He stated that he had examined many women with that instrument, in about a fifth of whom he discovered red and apparently granulating surfaces, varying in size from a small pea to a half-crown piece; in a few, bleeding when touched with the forceps. He then mentioned two cases, in each of which the cervix uteri was enlarged, puffy, and somewhat tender to the touch, in part covered with a large red, and apparently granulating surface; the os uteri admitted the top of the finger; to both the potassa fusa was applied, which was followed by peritonitis; they, however, recovered under the ordinary plan of treatment. Mr. Greenhalgh then appended a case in which the potassa fusa had been applied on four different occasions; considerable destruction of the cervix uteri, with immobility of the uterus, and almost entire occlusion of the os uteri, were afterwards found to exist. He mentioned, that this was one among many other cases which had come to his knowledge, in which potassa fusa had been prejudicial. After reading some quotations from Dr. R. Lee's writings, to prove that the speculum was of no use in malignant and some non-malignant diseases, Mr. Greenhalgh stated that the hysterical diathesis was markedly apparent in most of the cases which came under his care with uterine symptoms. He then proceeded to detail the fallacious symptoms most commonly accompanying this peculiar uterine condition; general disorder of the health, lumbo-sacral and ovarian pains radiating around the lower part of the abdomen, with frequently more or less disturbance of the menstrual secretion; not unfrequently a spot exquisitely tender to the touch was found to exist behind or about the trochanter major; in some cases, the pains extended down the thighs; leucorrhœa, although a very common, was by no means a constant symptom; sexual congress was sometimes attended with inconvenience, occasionally with pain, and in some few cases blood was lost either at the time or after this act; troublesome pruritus was in a few cases complained of. He then observed, that the various inclinations and mobility of the uterus

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were strikingly apparent in many cases he had examined. He took a hasty glance at the varieties presented in volume and texture by the body, cervix, and os uteri, as modified by individual peculiarity, the number of children borne, the more or less proximity to labour, by miscarriage, menstruation, &c. He added, that he had never yet succeeded in seeing into the uterine cervical cavity during life. The causes of these conditions of the uterus and cervix he considered to be, local injury to the part, modified and influenced by, in many cases, the general state of health. Mr. Greenhalgh expressed an opinion, that weighing and measuring uteri in the dead-house would be of little use in relation to reputed congestions, indurations, and hypertrophy, unless connected with the symptoms during life.

In the treatment of the aforesaid symptoms, he laid great stress on the administration of steel with ammonia, the mineral acids with tonics, baths, the hip and shower, hot or cold, combined in some cases with sedative or astringent vaginal injections, and occasionally leeches to the ovarian regions. He thought that cures were attributed to the cauterisations, whereas they were due to the general treatment. He had found no advantage in the application of solid nitrate of silver to the granular-looking cervix, over a solution of the same substance. After briefly alluding to the method of using vaginal injections, and to the lengthened period required for cure by caustics, he concluded by stating, that he hoped he had succeeded in proving, that cauterisation of the cervix uteri is not unattended with danger, and that, so far from its being useful, it had, so far as his experience had gone, been positively prejudicial; that, in many diseases of the uterus, non-malignant and malignant, the speculum is not only not necessary, but positively injurious; that these symptoms occur for the most part in females of a highly nervous and excitable temperament, and that, for their cure, exciting modes of treatment must be avoided; that the causes are more or less under control; that these conditions of the cervix uteri do not run into malignant forms; that the diagnosis is, as a general rule, very easy; that these conditions, so far at least as he could learn, do not shorten life; that there was no evidence to show that these cauterisations ever do, single-handed, (if the term might be permitted,) effect cures. And, lastly, Mr. Greenhalgh stated, that he had been informed by many intelligent and trustworthy general practitioners, that, although constantly treating cases with the aforesaid symptoms, yet they seldom, and in many instances never, used the speculum. He added, that he did not mean to affirm that the speculum was never necessary; but, if so, it was in a very limited number of cases.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 7th inst.:—

BULLOCK, PAUL WILLIAM, Bristol.
CORNELIUS, EDWARD CONNOR, Upper Canada.
LEMPRIERE, CHARLES MONTEIRO D'ALMEIDA, Australia.
MACCALLUM, DUNCAN, Montreal, Canada.
ORMOND, FREDERICK FRANCIS, Plymouth.
TRIBE, PHILIP HENRY, Bengal.
WHYLOCK, WATKIN SANDON, Chatham.

At the same meeting of the Court, Mr. Henry Slade passed his examination for naval surgeon. This gentleman had previously been admitted a member of the College, his diploma bearing date August 10, 1846.

MILITARY APPOINTMENTS.—Hospital Staff—Deputy Inspector-General of Hospitals Andrew Smith, M.D., to be Inspector-General of Hospitals and Superintendent of the Army Medical Department.

NAVAL APPOINTMENT. — Surgeon Alexander C. Macleroy (1838) to be superintendent of the Pyrenée convict-ship.

APPOINTMENT.—Dr. W. H. Parsey, Assistant Medical Officer of the Devon County Lunatic Asylum, to be Medical Superintendent of the Warwick County Asylum.

OBITUARY.—On the 27th ult., at Radclyffe-bridge, near Bury, Henry Ogden, M.D., aged 44. On the 8th inst., at Wellington-square, Hastings, James Mackness, M.D., aged 46. On the 27th of January, at his residence in New York, on the banks of the Hudson, James Audubon, Esq., the deservedly renowned naturalist, aged 76. On the 8th inst., in Gloucester, aged 70, Ralph Fletcher, Esq., for many years Surgeon, and late Consulting Surgeon, to the Gloucester General Hospital.

THE REV. MR. CORNISH, of Bicklington, has presented 50*l.* to the funds of the Devon and Exeter Hospital.

FEES TO MEDICAL OFFICERS.—The Guardians of the Newton Abbot Union have determined to do away with the extra fees to the medical officers, and to increase their salaries in proportion.

THE BOARD OF HEALTH has determined that the Public Health Act shall be applied to the town of Yarmouth, entrusting the Town Council with the power to carry out its provisions.

MR. BROWN, M.P., has presented 50*l.* to the Liverpool Eye and Ear Infirmary. It is his second donation of the same amount.

EXETER DISPENSARY.—Mr. Kingdon, one of the surgeons to this Institution, has resigned, after having discharged its onerous duties for a long period. A namesake of his, Mr. Boughton Kingdon, of Mount Rudford, has been appointed one of the medical (?) officers to the Exeter Homœopathic Dispensary. Mr. James, Mr. Cumming, Mr. Hunt, and Mr. Baker, are candidates for the legitimate appointment.

SOUTHAMPTON.—Mr. George Lake, of Teignmouth, has been elected house-surgeon to the Royal Infirmary, at Southampton.

MARYLEBONE BOARD OF GUARDIANS.—The report as to overcrowding and improper diet, and the diseased state of the workhouse inmates, made by Dr. Allen and Mr. Keyworth, has been confirmed by the Consulting Physician, Dr. Mayo, and by Mr. Stafford, and steps at last taken to remedy these evils. Had reliance been placed on the statements of the resident medical officers, as it ought to have been, the remedy might have been applied earlier.

PROGRESS.—An upholsterer and chairmaker has been proposed, we are glad to observe, as a member of the Epidemiological Society.

EPIDEMIOLOGICAL SOCIETY.—At the last meeting of the Epidemiological Society, the Secretary is reported to have stated as the result of his experience in the East, that the intensity of cholera was stayed during divine service on the Sabbath, while it recurred with increased virulence on the Monday morning!

THE FOTHERGILLIAN GOLD MEDAL of the Medical Society of London, for the best essay on Phthisis, has been awarded to Dr. Cotton, Assistant-Physician to the Hospital for Consumption, Brompton.

LIVERPOOL NORTHERN HOSPITAL. — The Governors have passed a resolution extending the time for which the honorary surgeons were appointed from ten to fifteen years; and also for the appointment of a junior honorary surgeon. A resolution, that no medical man should serve the hospital after he was 55 years of age, was negatived.

LIVERPOOL DISPENSARIES.—The Annual Report shows that these institutions are in a more flourishing condition than during the previous year, although the permanent income still falls short of the ordinary expenditure. A munificent donation has been received from the late Mr. Lewis, amounting to 1428*l.* 11s. 6d. During the past year 30,161 patients have been relieved, including 54 important surgical operations.

EXETER DISPENSARY.—A General Court of Governors was held on Friday last week, in the board-room of the Institution, for the purpose of electing a surgeon, to supply the vacancy caused by the resignation of Mr. W. P. Kingdon. The candidates were Mr. W. W. James, Mr. A. Cumming, and Mr. L. Roberts, who subsequently retired. A show of hands was taken, which being declared by the chairman to be nearly equal, a poll was commenced, and, at its close, the numbers were found to be—For Mr. James, 153; for Mr. Cumming, 95. Mr. James's election was consequently declared. It was proposed by Captain Locke Lewis, and seconded by Dr. Gibbs, "That the best thanks of the governors be conveyed to Mr. Kingdon, for his long and valuable services."

PLACARDING FOR MEDICAL OFFICERS. — The Board of Guardians of Totnes have decided upon advertising for medical officers for the Union by placarding the walls,—a most respectable proceeding, truly! One of them remonstrated against so disgraceful a proceeding as an insult to the Profession, but the majority carried the day, lest they should be accused of "hole-and-corner" proceedings. One of the guardians said, that 50*l.* a year was an inadequate remuneration for the surgeon to the poor-house; but, on its being ascertained that there had been more than one candidate for the office at a time, it was carried, that as the salary was *sufficiently high to provoke competition*, it must be remunerative. There are Solons (Solan geese) in the west.

THE HAPPY HOMES OF ENGLAND.—We make the following selections from the Registrar-General's Return for the past week:—"In Camden Town sub-district, at 22 Weston-place, on 29th January, a widow, aged 62 years, died of 'chronic pneumonia (2 years).' Great annoyance (says Mr. Holl, the Registrar) arises

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from the gulleys of the sewer. The stench is intolerable. Also, at 6, Clarence-passage, Pancras-road, on 29th January, the son of a labourer, aged 13 years, 'pneumonia (9 days).' This passage, and the other courts leading out of the old St. Pancras-road, are of the most offensive and unhealthy character. The house in which the death occurred is very old, containing four rooms, each room being occupied by a separate family. The body was to be buried on Sunday, the 9th inst.,—so it lay in the room by the side of the living family, consisting of 6 persons, for 12 days. The father said they had not had the means of burying before. It is to be observed, that the room is ill-ventilated, and used for all purposes of cooking, eating, drinking, and sleeping."

Epidemiological Society.—The third ordinary meeting of this Society was held on Monday, the 3rd of February, in the rooms of the Royal Medical and Chirurgical Society; Dr. Babington, the President, in the chair. Seven members, nine corresponding, and one honorary member, were admitted, and seven new candidates for membership were proposed. A paper by Dr. Hoskins, "On the Origin and Progress of Cholera and Small-pox in Guernsey," was read by Dr. Gull. The facts recorded by Dr. Hoskins were interesting, and, for the most part, adverse to the doctrine of contagion. Mr. Grainger thought, that the diffusion of the disease appeared to be effected rather by places than by persons, and that proof was wanting of its communicability from person to person. Mr. Hunt admitted, that sometimes the disease did not appear to be contagious; but that, on other occasions, it was clearly to be traced from person to person; he therefore thought that it varied in its type—being sometimes contagious, at other times not so. Dr. James Bird said that, in a certain sense, it was never contagious, and never thought to be contagious in India; but that where the diseased were congregated together, a degree of infection was generated; and that when it broke out among troops, many sleeping in the same apartments, its spread was soon arrested by the men being ordered into separate tents. Dr. Gull said, that if the disease were generated by the diffusion of putrid gases, he did not see how it could ever become contagious. On the other hand, if the germs of the disease were transmitted in a solid form, from person to person, a condition in some sense necessary to contagion, it was difficult to conceive that atmospheric influence alone should promote the disease. The President announced the receipt of a cheque for five guineas, from David Fullerton, Esq., of Kidbrooke Park, Kent.

Wigan.—At the annual meeting of the subscribers of the Dispensary in this town, it was stated that the Rev. H. J. Gunning, the rector of the parish, had intimated his intention to give a site on the Higher Mesnes, for the purpose of the Dispensary being moved there to have an infirmary attached. The rector would lease the site on a nominal rental, and he proposed to give such rental to the Dispensary. The Committee deem the site eligible both on account of it not being a locality likely to be built on, as well as a very healthy and airy situation, and contiguous to the town. There is, therefore, a possibility of the suggestion being carried out at an early period.

Liverpool Self-supporting Dispensary.—In reference to the self-supporting dispensaries, concerning which a meeting was to have been held between a self-formed Committee and the Committees of the North and South Dispensaries, no such meeting has taken place in consequence of the Committees of the Dispensaries being inclined to the opinion that it would be impossible to establish such a dispensary as a self-supporting one, in consequence of the present recipients of medical relief being principally composed of the very lowest Irish, who have not money enough to maintain themselves and their families, leave alone subscribing their coppers to a dispensary. How would Mr. Smith manage a class of people of this description?

Life Assurance.—A new Life Assurance Office is about to be opened, to be called the New Equitable, the directors of which propose to pay two guineas to every legally qualified medical practitioner for every official report rendered by him, which again, instead of being submitted to the entire board, is to be submitted to the medical examiner of the company, because, by the ordinary modes of communication between life offices and the medical referees of persons whose lives are proposed for assurance, circumstances occasionally transpire which a just sense of propriety dictates ought to be known only to medical practitioners. The directors say they will invariably recognise every qualified member of the Profession whom they consult, not only as the referee of the party whose life is proposed for assurance, but as their own medical adviser in the case, on whose written and well-digested report they must mainly rely in forming their decision, and they consider that a fee of two guineas is but a just acknowledgment for an important service. If these principles be duly carried out, the office will deserve, as far as the medical profession is concerned, the name of "Equitable," and will also be entitled to the recommendations, and they are not uninfluential, of every medical man.

Dr. Mackness.—We regret to announce the almost sudden death of Dr. Mackness, of Hastings, at the early age of 46. Dr. Mackness was distinguished by that kindliness of disposition that accompanies a religious and well-regulated mind. He enjoyed a considerable reputation, and was the author of a work on the Climate of Hastings, and its Adaptation to the Necessities of Invalids. He also edited "The Moral Aspects of Medical Life" of Professor Marx; a publication highly praised by the medical Press. Dr. Mackness had the honour of being selected by the Council of the Provincial Association to read, at the approaching annual meeting at Brighton, a Report on the Sanitary Aspects and Topography of the Southern Coast of England; a labour in which we have reason to know Dr. Mackness had made great progress. If in a sufficiently advanced state, we trust this paper will still be made available. It would be a melancholy reflection, that the last labours of so experienced a man were entirely lost to the Profession.

West Derby Guardians.—An inquiry has been made by the West Derby Guardians into the conduct of Mr. Stephens, one of their Medical Officers, who, it was alleged, allowed his apprentice, Mr. Baird, to attend the pauper sick. It was stated, that from the 21st Oct., 1850, to the 26th Jan. last, Mr. Stephens had attended personally 136 paupers, and Mr. Baird, the apprentice, 765, the latter having also conducted a protracted and difficult midwifery case alone. Mr. Stephens alleged, that his apprentice was nearly 20 years of age, that he visited other than pauper patients, and only prescribed for them under his directions. After a discussion of several hours, it was resolved that Mr. Stephens be censured, and that he should attend personally in all cases of difficulty.

Public Health.—Mr. Dover, of 28, New-street, Spring-gardens, professes to possess the knowledge of a chemical agent, which will not only fix and precipitate all the matters in the London sewers emitting noxious smells and poisonous gases, but produce the following benefits to the community:—1st. The purification of the waters used daily in London, whether supplied from the Thames, or other rivers and streams more or less polluted with sewage. 2ndly. The preservation of the residuum of the sewage for agricultural purposes. Mr. Dover asserts, that he has fully demonstrated the truth of the above; and the only amount of protection he asks from the Government is, "that, unless some system relative to the sewage and sanitary purposes shall be demonstrated, and publicly adjudged to be more efficacious, simple, economical, salutary, and more generally advantageous to the country at large, and producing greater sanitary benefits, with larger pecuniary profits to the Government and the people, at less cost and expenses than his, an adequate compensation shall be awarded to him, by a respectable jury, for his expenses and trouble in developing, conducting, and realising the important plans he has propounded for the public welfare."

M'Dougall v. Martin.—This was an action tried in the Birkenhead County Court, the plaintiff, Mr. M'Dougall, suing for the sum of rather more than 4l. for attendance on the defendant's wife, the adverse plea being that the patient died in consequence of the plaintiff's neglect. It appeared from the evidence that the deceased had hæmorrhage on several occasions prior to her confinement, and subsequently puerperal fever and phlegmasia dolens, and that Mr. M'Dougall, while in attendance, called in Dr. Bickersteth and Mr. Dixon, both of whom approved his practice. He was asked by the family to meet Mr. Stevenson, jun., but refused. The latter was at the time in professional attendance on the husband, who urged him to see his wife. He at first refused, but ultimately acceded, and, finding the bladder greatly distended, drew off a large quantity of urine. This appeared at first to relieve the sufferer, but she ultimately sank. Several medical men testified to the correctness of the plaintiff's treatment, and others gave evidence against him. The principal point made against him was the condition of the bladder. The Judge decided against the plaintiff, and also refused permission for a new trial. In the course of his remarks he condemned alike as unprofessional the conduct of the plaintiff, in refusing to meet Mr. Stevenson, and of the latter, in seeing the patient of another medical man in his absence.

Seamen's Hospital Society.—At the annual general court, held on the 5th instant, it was stated that the number of patients admitted into the hospital, the Dreadnought, during the past year, was 2,274; the number of out-patients, 1,528. The sanitary con-

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dition of the hospital had been greatly improved, particularly in cases of erysipelas, in the more favourable condition of wounds and sores, and in the increased facility in the treatment of severe injuries. The legacies during the year amounted to 1,294*l.* 4s. 10d., and the receipts amounted to 8,146*l.* 9s. 9d., the expenditure to 8,583*l.* 14s. 6d., being an excess of expenditure of 437*l.* 4s. 9d. Several foreign monarchs are among the annual contributors. Government has been at considerable expense in making important alterations and improvements in the internal arrangements of the ship, having for their object the free admission and circulation of air, and the removal of noxious influences.

HOSPITALS OF PARIS.—HOPITAL DU MIDI.—In the year 1497, the city of Paris founded an hospital called "Des Petites Maisons," for the reception of patients labouring under the Neapolitan disease, which the French soldiers had imported two years previously from the siege of Naples. The first appearance of this malady caused, it would seem, inexpressable terror amongst the authorities, who endeavoured to prevent its propagation by the most severe measures. Thus, a decree of the Parliament for 1497 ordains, "that any one coming to Paris with the disease shall be forthwith sent home again; that the rich shall be shut up in their houses, and the poor in the Hôpital des Petites Maisons; and, finally, to enforce obedience, the pain of death was pronounced against the infected stranger who might return to Paris, or against the poor person who should leave the asylum appointed to him before being cured. Little attention, it would seem, was paid to this decree; for, in the following year, we find a curious "Cry touchant les verollez" addressed by the Provost of Paris to his police, with formal order to fling into the river any one affected with the disease who should continue to inhabit the city. The increasing frequency of the venereal disease soon rendered it necessary to increase the "Petites Maisons," and, during the reigns of Louis XII. and Francis I., many acts were passed to insure refuge and treatment for all persons labouring under the malady. These attempts, however, were unsuccessful, and it was found necessary, in 1559, to return to the old site. When Louis XIV. founded Bicetre, large numbers of venereal patients were received into that establishment; many others found accommodation at Salpetriere, and a special ward in the Hôtel Dieu was appropriated to pregnant women affected with the disease. But great numbers of children came into the world with the malady, which they derived from their parents. To receive these unfortunates, a house at Vaugirard, containing 128 beds, was appropriated. It soon, however, became necessary to seek a larger establishment, and the governors of hospitals were authorised, in 1781, to purchase one with the property of "the pilgrims of St. Jacques," who had recently been suppressed. The administrators selected the convent occupied by the Capucins of the Faubourg St. Jacques up to 1784. Hither were transported the patients from Bicetre and the children from Vaugirard; but the new hospital was not completely organised, and ready to receive all the patients destined for it, until 1792. As we have already mentioned, previously to this period, the women were treated at the Hôtel Dieu and Salpetriere, but many were admitted to Bicetre in company with the men. The abuses, even at this period, were dreadful. In many of the wards were beds in which eight patients lay together. In the "Salles d'Expectation," as they were called, one half of the unfortunate patients went to bed from 8 o'clock p.m. to 1 a.m.; the other half occupied the same beds from 1 o'clock to 7 in the morning. The wards were dark and most dirty; the windows nailed down, or in many cases bricked up, so as to exclude light as well as air; the beds were filled with straw, which had not been changed for several years; the linen, torn into fragments from long use, was saturated with filth of every kind; and to crown all, the unfortunate patients—200 to 250 in number—in these provisional wards, were never treated. It was thought sufficient to dress the sores, &c., alone, and they had to remain in this state six, nine, or twelve months, before they could obtain admission into the hospital. Few if any of the unfortunate patients treated in this barbarous manner survived sufficiently long to obtain medical assistance. Nearly all those received into the temporary wards used to die there. Under the reign of Louis XVI. many improvements were made; but it was only within the last twenty years or so that complete arrangements worthy of a civilised people were adopted. The females were then separated from the males, and transferred to a particular establishment in the Rue de l'Ourcine; proper spaces were allotted to the beds; cleanliness, so indispensable in a venereal hospital, was rigidly enforced; and the hospital became what it now is, a model establishment, whereas previously it was merely a *refugium peccatorum*.

QUACKERY.—At an inquest held on Tuesday week, at Hurst, on the body of Aaron Lunnon, farmer, of that parish, who died from lock-jaw, induced by a cut in the hand, the evidence showed that a woman named Metcalf, the village midwife, dressed the wound, and after applying bread poultice and marsh-mallows for 10 days, she altered the treatment and applied a salve made of bees' wax, lard, and salad oil. In a day or two after, however, she applied a little red precipitate powder to a portion of the wound where the flesh appeared to be dead. Deceased for some time would not consent to a surgeon being called in, but at length Mr. Waite attended him, on the day after the precipitate was put on his hand. The surgeon found him suffering from a sore throat and a stiffness in the back; in fact, symptoms of tetanus were apparent. Red precipitate was an improper application to such a wound. The Coroner cautioned Mrs. Metcalf as to the great risk she ran by attending cases of this description. Verdict, "That death was caused by tetanus, produced by a wound in the hand."

DEATHS *in the Metropolis for the week ending Saturday, Feb.* 8, 1851.

Causes of Death.	Feb. 8. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	515	346	247	1109	10631
Specified Causes	512	345	215	1103	10574
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	169	23	15	207	1981
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	3	23	26	53	573
3. Tubercular Diseases.	69	99	4	172	1874
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	52	36	29	117	1287
5. Diseases of the Heart and Blood-vessels	6	28	16	50	309
6. Diseases of the Lungs, and of the other Organs of Respiration ...	107	71	75	253	2131
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	22	30	10	62	634
8. Diseases of the Kidneys, &c. ...	...	3	4	7	82
9. Childbirth, Diseases of the Uterus	...	8	...	8	105
10. Rheumatism, Diseases of the Bones, Joints, &c.	4	6	1	11	68
11. Diseases of the Skin, Cellular Tissue, &c.	...	1	...	1	12
12. Malformations	5	...	...	5	34
13. Premature Birth and Debility ...	28	2	...	30	201
14. Atrophy	25	...	...	25	165
15. Age	...	...	56	56	725
16. Sudden	2	2	1	5	130
17. Violence, Privation, Cold, and Intemperance	20	13	8	42	263
Causes not Specified	3	1	2	6	57

1. Small-pox ...	25	Paralysis	19	Disease of Spleen	...
Measles	27	Delirium Tremens	1	8. Nephritis.....	...
Scarlatina ...	15	Chorea	...	Nephria or Bright's Disease ...	4
Hooping Cough	59	Epilepsy	3	Ischuria	...
Croup	8	Tetanus	2	Diabetes	...
Thrush.....	1	Insanity	1	Stone	...
Diarrhœa ...	16	Convulsions	35	Cystitis	...
Dysentery ...	2	Disease of Brain, &c.	21	Stricture of Urethra ...	1
Cholera	...	5. Pericarditis...	3	Disease of Kidneys, &c.	2
Influenza ...	4	Aneurism ...	2	9. Paramenia ...	1
Purpura and Scurvy.....	...	Disease of Heart	45	Ovarian Dropsy.....	1
Ague	...	6. Laryngitis ...	5	Childbirth (see Metria)	4
Remittent Fever	2	Bronchitis ...	117	Disease of Uterus, &c.	2
Infantile Fever	1	Pleurisy	6	10. Arthritis	...
Typhus	34	Pneumonia...	86	Rheumatism	3
Metria or Puerperal Fever	4	Asthma	29	Disease of Joints, &c.	8
Rheumatic Fever	2	Disease of Lungs, &c.	10	11. Carbuncle ...	...
Erysipelas ...	7	7. Teething	11	Phlegmon ...	1
Syphilis	...	Quinsey	1	Disease of Skin, &c....	...
Noma or Cankor.....	...	Gastritis	3	17. Intemperance	1
Hydrophobia	...	Enteritis.....	7	Privation of Food.....	...
2. Hæmorrhage	2	Peritonitis ...	2	Want of Breast-milk	5
Dropsy.....	16	Ascites.....	1	Neglect	...
Abscess	...	Ulceration (of Intestines, &c.)	3	Cold	...
Ulcer	1	Hernia.....	4	Poison	2
Fistula.....	1	Ileus.....	4	Burns and Scalds	8
Mortification	5	Intussusception	3	Hanging, &c.	5
Cancer	27	Stricture of Intestinal Canal	2	Drowning ...	6
Gout.....	...	Disease of Stomach, &c.	5	Fractures ...	12
3. Scrofula	7	Disease of Pancreas ...	1	Wounds	3
Tabes Mesenterica	12	Hepatitis.....	6	Other Violence.....	...
Phthisis (or Consumption).....	113	Jaundice	2	All Violence	35
Hydrocephalus.....	40	Disease of Liver	7		
4. Cephalitis ...	10				
Apoplexy.....	25				

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BIRTHS AND DEATHS.

	Births.	Deaths.	Births over Deaths.
Males	848 } 1604	564 } 1109	284 } 495
Females	756 }	545 }	211 }

The Deaths in the several Districts are as follow :—

Districts.	Population in 1841.	Feb. 8, 1851.	Sum of Ten Weeks.
London...	1948369	1109	10631
West	301189	155	1576
North	376568	181	2032
Central...	274199	198	1958
East	393067	256	2257
South	603346	320	2807

TO CORRESPONDENTS.

Dr. Copland's Dictionary.

[To the Editor of the Medical Times.]

Sir,—In 1833, Dr. Copland brought out his "Medical Dictionary," which he promised to complete in "four parts," and in the course of a "few months." Now, Sir, these few months have extended to eighteen years, and the four parts to fourteen fasciculi—the work being still unfinished. I wish to ask the Doctor, through the medium of your valuable journal, what prospect there is of a termination to his labours and the impatience of his subscribers. I am, &c., A Subscriber.

[We have reason to believe, that, among the wonders of the wonderful year 1851, we may look for the completion of Dr. Copland's "Medical Dictionary." And a wonderful work it is, even in its unfinished state; and more especially when we reflect that it is the production of *one man*—a sufficient excuse, perhaps, for the delay it has experienced.]

London Medical Society.

[To the Editor of the Medical Times.]

Sir,—A few weeks ago I noticed that a Member of the London Medical Society addressed you on the subject of the undignified proceedings on the part of some of the gentlemen who attend it; it was to be hoped that the hint given in that communication would have effected the purposes intended by the writer, but I am sorry to say, that the character of the proceedings last Saturday evening, and the behaviour of certain Members, were more undignified and absurd than ever, and require exposure. It is disgusting to hear observations made, and illustrations ingeniously worked out, at a full meeting of a Society composed of learned and scientific men, which are neither marked by a strict regard for modesty nor for refinement. Is it proper, Sir, that the whole meeting should be seen indulging in loud shouts of laughter at the description of "some imaginary hero" under an archway at night, after having dined out and drank more than was proper. Are minute descriptions, for the purpose of illustrating the rise, progress, and history of a gonorrhœa, necessary for the advancement of science? I am sure the Author of the paper read last meeting would have left out some portions of it at least could he have anticipated the effect they would have had upon the risibility of his hearers. I wish to say nothing against that gentleman's character, for he is a highly-respected Member of the Society, but it would have been better for the dignity of the Society if he had been less precise and pictorial in some of his descriptions.

The conduct of a member who is fond of attempting witty jokes was also particularly remarked and censured by more judicious and careful men. In making reference to the cases of uterine disease, treated by Mr. Greenhalgh (who was present), they were spoken of as "Mr. Greenhalgh's women;" and the same gentleman endeavoured to amuse the Society by an anecdote, told in a very off hand manner, relating to the late Mr. Liston and a lady who had brought her son to him with gonorrhœa. The familiar manner in which that great surgeon was referred to by this youthful speaker was especially noticed. Another gentleman also that evening made a long rambling speech in such an extraordinary manner, that it was supposed by some that he was more than "Bacchi plenus."

Now, Sir, I have heard these proceedings referred to since the meeting, and such meetings do the Society much harm. I am anxious for the welfare of the London Medical Society, and feel that if such proceedings as have been referred to are allowed to go on, ruin will await it—"Quem Deus vult perdere prius dementat." Pray, Sir, endeavour to save it from destruction by giving its Members some wholesome advice. Your pen is wielded in an able and impartial manner, and a smartish castigation from you will, I am sure, be of great service to this Society, which is for the greater part composed of Fellows who would do honour to any medical association in the Kingdom. Pray suggest that those who read papers should be more careful in what they write; and that those who speak should not give verbose and unintelligible harangues upon matters of which they have but little knowledge. I am sure we are all glad to hear the experience of the youngest amongst us, but let his information be the result of experience, and then will benefit accrue to himself and to his hearers. Writers of papers and speeches should also be careful as to their recital and interpretation of the writings of authors from whom they quote, otherwise most ludicrous mistakes are made. Thus, last Saturday, a gentleman made Dr. Henry Bennett say, that "ulceration of the os uteri preceded the inflammation;" and when called upon, himself made it plain to the Society, by the quotation from that gentleman's book, that he had entirely mistaken him. I am, &c.,

A Junior Fellow of the London Medical Society.

[We strongly recommend the Council to adopt the plan of their more sedate brother, and to read the papers before they submit them to the Society. For ourselves, should we hear again similar complaints, we shall decline giving a place in our Journal to the proceedings of the London Medical Society.]

[To the Editor of the Medical Times.]

Sir,—A gentleman, qualified as a Member of the London College of Surgeons, a licensed Accoucheur, and a Licentiate of the Apothecaries' Hall of Dublin, and engaged in general practice, since 1843, in the city of Dublin, has some intention of purchasing a practice in Lancashire.

Will the above qualifications be considered by the public as sufficient, or must he become a Member of the London Apothecaries' Society; and on what terms?

Has not the London Hall, some two years since, expressed its intention to recognise the members of its Irish sister should any of them settle in England, more particularly any one possessing, in addition, a Medical or Surgical Diploma?

A full answer in your next week's "Answer to Correspondents" is respectfully solicited. I am, &c., A Constant Reader.

[1st. The *public* rarely concern themselves about a medical man's qualifications. Our Correspondent, however, would not be practising legally without the licence of the Hall.—2nd. No.]

[To the Editor of the Medical Times.]

Sir,—Being a medical officer to several Sick Benefit Societies, will you oblige me, through the medium of your Correspondents' column, with your opinion in reference to a member who was originally under my care, and who was desired by me to obtain further advice, but, from his circumstances rendering him unable to advance a fee, obtained the additional advice by having presented to him an order for the Dispensary. The question now presents itself,—After receiving his order, and attended by the house-surgeon and the physician for the time being (the latter making no complaint), whether I ought to supply the said patient with medicines during the period he continues a patient on the books of the Dispensary, or whether the case is not wholly out of my hands? I am, &c.,

Lincoln. A Subscriber and Duly Qualified Practitioner.

[If the Dispensary decline to give medicine, our Correspondent, by virtue of his contract with the Benefit Society, would be obliged to supply whatever was necessary to the cure of the patient. We of course assume that the order on the Dispensary does not make the supply of medicine compulsory.]

A Constant Reader.—Fowne's Chemistry, Edited by Dr. Bence Jones. Royle's Materia Medica. Erasmus Wilson's Anatomy.

A Licentiate asks—"Can a non-member of the College of Surgeons, but one legally educated for examination, recover an amount of money, due for medicine and attendance upon a purely surgical case?"

[Such cases have been tried upon the ground of work and labour done. The issue would depend upon the decision of the judge.]

Mr. Johnson will observe that his wishes have been complied with.

Dr. Knox, of Strangford, in reply to Dr. George Gregory, reached us too late for this week's publication.

We will comply with the request of Mr. Perfect.

Mr. Wilkinson's note was sent, we presume, by mistake, since it was addressed to another journal, to which we have forwarded it.

The following Publications have been received :—

On the Truths contained in Popular Superstitions; with an Account of Mesmerism. By Herbert Mayo, M.D., formerly Senior Surgeon to Middlesex Hospital, and Professor of Anatomy and Physiology in King's College, &c. &c. &c. Pp. 198. Second Edition. Edinburgh: Blackwood and Sons. 1851.

Letters on the Laws of Man's Nature and Development. By Henry George Atkinson, F.G.S., and Harriet Martineau. Pp. 300. London: John Chapman. 1851.

General Directions for Clinical Observation on the more Important Points of Surgery. Designed for the Use of the Students of Queen's Hospital, Birmingham. By Langston Parker, One of the Surgeons, &c. Pamphlet. Pp. 8.

Transactions of the American Medical Association. Vol. III. Pp. 499. Philadelphia. 1850.

The American Journal of the Medical Sciences. Edited by Isaac Hays, M.D. For January, 1851.

Communications have been received from—

Mr. Wilkinson, of Sheffield; R. C. L.; Mr. Harvey, of Weymouth, "the successful promoter of the Breakwater;" Mr. Moore, of the Queen's Hospital, Birmingham; Mr. Armitage Pearson, of Wolton; Dr. Roe, of Plymouth; Professor Merri, of Manchester; A Constant Reader; Dr. Hardinge, of Silver-street; Mr. Hester, of Oxford; Dr. Stanhope Speer, of Cheltenham; Dr. Steed, of Southampton; Mr. Douglas, of William-street, Lowndes-square; Dr. Goodman, of Manchester; Dr. Tunstall, of Bath; A Constant Reader; A Constant Reader; An Old House-Surgeon; Dr. Reynolds Hayne, of Devonshire-terrace, Camden-town; Dr. Knox, of Strangford; A Subscriber and Duly Qualified Practitioner; Mr. Perfect, of Malling; Dr. Wilks of Camberwell; Mr. Lapargue, of Foleshill, Warwickshire; Dr. Donkin, of Morpeth.

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ORIGINAL LECTURES.

LECTURES ON PUBLIC HEALTH.

ADDRESSED TO THE STUDENTS OF THE THEOLOGICAL DEPARTMENT OF KING'S COLLEGE.

By WILLIAM A. GUY, M.B. Cantab.,

Dean of the Medical Department of King's College, Professor of Forensic Medicine, and Physician to King's College Hospital, &c.

LECTURE II.

Contents:—Diminished Mortality coincident with Improvements in the Diet, Clothing, Dwellings, and Habits of the People.—Famines and Pestilences of the Middle Ages.—The Mortality from the Cholera small, when compared with that from the Black Death, Sweating Sickness, and Plague.—Progressive Improvements in the Diet, &c., of the People.—Introduction of Gardening; Importation of the Potato, of Tea and Coffee, and of Cheap Fruits.—Storing of Hay for Winter Use.—Supply of Water to Large Towns.—Improvements in Streets and Houses.—Increased Value of Human Life during the 18th and 19th Centuries proved by the London Bills of Mortality, and by the Relative Age at Death of Life Annuitants in the 17th and 18th Centuries.—Improved Expectation of Life among Kings and the English Aristocracy.—Beneficial Effects of the Fire of London.—Moral Progress coincident with Physical Improvement.—Existing Evils, Physical, Economical, and Social.—Plan of the Course.

Gentlemen,—As a fortnight has elapsed since my first lecture, I will briefly remind you of its subject-matter. My first object, as you may recollect, was to prove that the Church of England had, in a most authoritative and impressive manner, in the persons of those who must command the respect both of clergy and laity, recognised the importance, on moral and religious grounds, of the efforts which have been made, and are still making, to promote the health and physical well-being of the poor. Having, as I trust, fully established this position, I proceeded to lay before you some of the more obvious motives which, when you come to enter upon the duties of your profession, would lead you to exert yourselves for the improvement of the temporal condition of your parishioners, and I laid great stress, if you recollect, on the prevention of that state of abject, squalid poverty, which is held by universal consent to be so unfavourable to the growth of Christian virtues. You may also recollect that, in enumerating the eminent services rendered to the cause of sanitary and social improvement by the right rev. prelate, the Chairman of the Council of this College, I stated that he had stamped with his high authority the conclusion to which members of my own profession have been irresistibly led by large experience, that the pestilence which has just left us owed much of its fatality to the neglect of precautions which reason and observation had suggested. That I may not be thought to misrepresent in any way the views of the Bishop of London, I will quote his very words from his Pastoral Letter, issued on the eve of the public thanksgiving. "Judging," he says, "from the unvarying tenor of the reports made by the medical inspectors and other persons who have watched the progress of that fatal disease (cholera), I do not hesitate to declare my belief, that by far the greater number of those who have fallen victims to the pestilence might, under God's blessing, have been saved from death, had timely and effectual measures been taken for cleansing and ventilating their dwellings, preventing their overcrowded state, and draining the courts and alleys in which they are situate."

Although this important passage refers only to the cholera, it is in perfect harmony with opinions elsewhere expressed in reference to fever and other severe diseases; so that, I believe, I am perfectly justified in citing the authority of the Bishop of London in favour of the broad general principle, that all pestilential diseases are apt to be greatly aggravated by our negligence of simple means of prevention made known to us by experience, and for the diligent use of which we are clearly responsible.

Now, although I feel that this deliberate opinion of the Bishop of London, formed, as I cannot doubt that it was, after careful examination of the reports to which he refers, stands in no need of confirmation at my hands, I think it highly expedient to prove to you, by an appeal to undisputed facts, that pestilential diseases (indeed, all diseases which attack large numbers of persons at or about the same time and in the same place) are either wholly or partly traceable to the operation of causes within our own control.

Before I proceed to that more rigid demonstration of this truth which the history of particular diseases (such as scurvy, small-pox, gaol fever, typhus fever, and cholera) supplies, I will lay before you some probable evidence deducible from the progressive diminution of mortality which has proceeded *pari passu* with improvements in the diet, clothing, dwellings, and habits of the people.

The most careless reader of English history can scarcely fail to have been struck with the very frequent mention of famines and pestilences in the early centuries, and their comparatively rare occurrence in recent times. Even the scanty records of the 7th, 8th, 9th, and 10th centuries make mention of no less than ten famines, murrains, and pestilences. In the 10th century, they were four in number; in the 11th century, eleven; in the 12th century, twelve; in the 13th century, eleven; in the 14th, (the century of the black death,) fourteen; in the 15th, (the century of the first visitation of the sweating sickness,) nine; and in the 16th century, eleven. The first three quarters of the 17th century witnessed no less than four epidemics of the oriental plague in London, the last of which occurred in 1665. The last famine, so severe as to be deemed deserving of that name, is stated by some authorities to have taken place more than two centuries previously, namely, in 1448. But it is well known that there have been years of high prices, with a corresponding short supply of food in the 18th and 19th centuries. There were seven such periods in the 18th, and there have been already five years in the present century in which the price of wheat has exceeded 100 shillings the quarter. We have also had, in the present century, (to say nothing of the influenza, and more than one year of greatly increased mortality,) two distinct attacks of an imported pestilence, the cholera morbus. It is obvious, therefore, that we can claim no immunity from the scourges which afflicted our ancestors; but it is equally obvious, that the famines which in the five centuries, from 1200 to 1600 inclusive, occurred on an average seven times in each century, and continued during ten years in every hundred, are no longer of such frequent occurrence, of such long continuance, or of such fearful severity. There is equally good ground for believing that the pestilences of our own times are not to be compared in fatality with the black death of the 14th, the sweating sickness of the 15th, or the Oriental plague of the 16th and 17th centuries. It is a popular, but probably an exaggerated estimate, which sets down the mortality from the black death at half the then existing population. The four successive attacks of the sweating sickness also occasioned a very great loss of life; while the plague, in its last fatal outbreak, nearly doubled the always high mortality of London.

How comparatively slight the mortality from the cholera has been in our own times may be inferred from an estimate of Mr. Farr's, that "if the same rate of mortality had prevailed as in the plagues of the seventeenth century, the deaths in the metropolitan districts" (which in the first cholera epidemic exceeded 5000, and in the second, which has just passed away, fell little short of 15,000) "would have exceeded *half a million!*" It is only in a few villages in England, notoriously filthy and overcrowded, that such a frightful rate of mortality as that occasioned by mediæval pestilences has been witnessed. Even the very worst of our towns has escaped with the loss of half as many lives, in proportion, as were destroyed in London by the plague. And yet the cholera, judging by the suddenness with which it has destroyed life in some cases, the rapidity with which it has proved fatal in all, the high rate of mortality which it has occasioned everywhere, especially at its first outbreak, and the appalling character of its symptoms, so closely resembling the operation of some of our most deadly poisons, would seem at least as formidable as any pestilence recorded in history. The small comparative number of its victims would appear to be owing, not to any inherent inferiority as an agent of destruction, but to some remarkable difference in the condition and habits of the people, to physical improvements by which they have been rendered less susceptible of attack, or more capable of resistance. Now, there is abundant evidence, that in all the prime necessaries of life and grand essentials of health—food, water, fuel, clothing, and shelter—the people of England, and especially the inhabitants of our

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towns, at the present day, are greatly in advance of their ancestors.

In respect of the diet of the people, it will suffice to remind you, that it was not till the beginning of the sixteenth century that the art of gardening was introduced from Holland, for we are expressly told that Queen Catherine of Aragon could not procure a salad till a gardener was sent for from the Netherlands to raise it; that it was not till towards the close of the same century that the potato was brought from America; that coffee was not imported till about the middle of the seventeenth century, nor tea till at least a quarter of a century later; and that it was not till the close of the same century that hay began to be stored for winter provender, so as to render possible a supply of fresh meat throughout the year. The cheap fruits of home growth, which now enter so largely into the diet of the people, could not have come into general use till long after the introduction of the art of gardening from Holland; and the orange, though brought into England by the crusaders, did not become an article of general consumption till a much later period. As to the supply of water to the inhabitants of our large towns, that may be inferred to have been very scanty and insufficient, from the circumstance, that a liberal supply presupposes the application of costly and powerful machinery; and we know that, even in the metropolis, machinery was first used for that purpose by Peter Morrys in 1580, and that the supply from the New River was not introduced by Hugh Myddleton till 1613.

On the subject of clothing, especially as connected with personal cleanliness, I need only remark, that before the end of the 17th century, when linen and soap both began to come into general use, the apparel of the great mass of the people must have been anything but favourable to the preservation of health, or the formation of habits conducive to it.

The character of the houses inhabited by the great bulk of the population, in very early times, may be inferred from the date of the introduction of glass windows (1180,) and of chimneys (1310.) Until these two inventions got into general use, the practice of ventilation must have been sadly at a discount.

The supply of fuel, both as a warmth-producer and as an agent in ventilation, has obviously become more abundant of late years, since coal has taken the place of wood.

In the construction of dwellings, and the arrangement of streets, it is notorious that we are greatly in advance of our ancestors. The light and air, which it seemed their constant study to exclude, by narrow streets, encumbered with huge sign-boards swinging to and fro, by tall houses, and by low rooms with small windows, it is now our aim, in every possible way, to admit and to circulate in and about our dwellings. As to household cleanliness, there is every reason to believe that the great bulk of our population, a century or two ago, were much in the same state as those who, in our own times, are sunk into a condition of abject poverty.

In the very important matter of drainage, also, great improvements are known to have taken place,—improvements not merely in the drainage of the land upon which our towns stand, but also (as a necessary consequence of the enclosure and reclamation of waste lands, and the advance of the art and science of agriculture) in the country generally.

At present, I must content myself with repeating, that in the great requisites of food, water-supply, fuel, clothing, and shelter, our people, barbarous as their condition still is in so many respects, are greatly in advance of their ancestors; and I cannot but connect that manifest improvement with the mitigation of the cholera, in comparison with our older pestilences, with the disappearance from among us of many fatal diseases, the progressive mitigation of others, and the increasing value of human life. That the value of human life has been progressively increasing, from the joint operation of the causes to which I have referred, has been proved, as regards the 18th and part of the 19th centuries, by an eminent actuary, Mr. Edmonds, who has carefully compared the births and deaths, according to the London Bills of Mortality, for successive periods of twenty years, beginning with 1730, and ending with 1829. The results at which he arrived are as follow:—In the twenty years from 1730 to 1749, 74 in a hundred of the children born into the world died before they attained their fifth year; in the next period of twenty years, 63 per cent. perished; in the next twenty years, 51 per cent.; in the next twenty years, 41 per cent.; and in the twenty years from 1810 to 1829 inclusive, only 32 per cent. The more accurate returns of the Registrar-General, for the six years 1839-44, show a slight increase of mortality, which may, perhaps, be accounted for by some difference in the mode of making the two sets of returns; but the difference is, in no case, very considerable.

The increased value of life exhibited by these figures is not limited to children under 5 years of age, for we have most satisfactory evidence of a similar improvement having taken place at all ages, in the shape of a comparison between two similar financial operations of life-annuities, completed at an interval of nearly a century; the first in the reign of William III., the second in that of George III.; the date of the first being 1693, that of the second 1789. The ages and lives were recorded in the Exchequer, and the calculations were made by Mr. Finlaison.(a) The result of the calculations is conclusive as to the greater value of life at the end of the 18th than at the end of the 17th century.

The particulars of the comparison will be found in the annexed Table:—

Age.	Mean Duration of Life, Reckoning from 1693.	Mean Duration of Life, Reckoning from 1789.	Difference in favour of the 18th century.
5	40·7	51·6	10·9
10	38·1	48·3	10·2
20	31·8	41·2	9·4
30	27·6	35·4	7·8
40	22·7	29·1	6·4
50	17·3	22·3	5·0
60	12·4	15·8	3·4
70	7·5	10·1	2·6

You see, then, that at the end of the 18th century, as compared with the end of the 17th century, life had increased in value, according to the age from which we reckon, by from one-third to one-fourth.

We possess, unfortunately, no means of carrying our comparisons back to earlier periods of history, the London Bills of Mortality not having been kept till towards the end of the 16th century, viz., the year 1592. The only classes of the population whose ages at death have been recorded with sufficient accuracy are kings and the members of the aristocracy; and these classes are scarcely numerous enough to furnish satisfactory data for comparison. I have been at some pains to compare the ages at death of members of these two classes dying at different periods; and I find that, taking the whole body of the English aristocracy together, and excluding all deaths by violence, they were never so long-lived as in the first half of the 16th century. From that time to the last half of the 17th century, the value of life seems to have constantly diminished, to increase considerably in those born during the first half of the 18th century. By collecting the ages at death of all the monarchs of Europe, including the petty princes, I have arrived at results more in accordance with my own expectations and the opinions I have advanced in this lecture. Beginning with the 13th century, when the facts are sufficiently numerous to yield a fair average, I find the age at death to be 51 years. From that time the value of life in successive centuries increases steadily, being 53 in the 14th century, 53½ in the 15th, 54 in the 16th, 55½ in the 17th, and 58 in the 18th century. Though the results in the case of the English aristocracy do not, as I have stated, altogether tally with these, the two classes of facts agree in this, that, in the case both of members of the English aristocracy, and of the kings of Europe, there is a very marked increase in the value of life in those born during the 18th century, compared with those born in the century immediately preceding.

The facts which I have brought forward, certainly establish a progressive and very considerable increase in the value of human life in recent times. This happy change, in the case of the inhabitants of the metropolis, living within the Bills of Mortality, is generally supposed to date from the Fire of London, in the year 1666, which led to vast improvements in the construction of houses and the arrangement of streets. The disappearance of the plague, which had previously visited us with more or less severity, at short intervals of time, is, as you know, popularly, and probably with justice, attributed to that cause. Be that, however, as it may, there

(a) Sir G. Blane, Bk. I. p. 200.

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is abundant evidence of a great and steady improvement of health, leading to a marked increase in the value of human life, having taken place during the last century and a half, or two centuries; and there is equally convincing evidence of concurrent ameliorations in the condition of the mass of the people. That the one was dependent on the other—the improved health on the improved condition—there is every reason to believe. It is true that we have no means of contrasting, by periods of twenty years, the diminished mortality of children, nor even, at the longer interval of a century, the improved expectation of life at all ages, with an increasing command of the necessaries, conveniences, and comforts of life. We cannot place the two orders of facts in an array of figures side by side; but we may very safely infer that, in the very nature of things, the valuable commodities first brought into general use towards the end of the seventeenth century would spread, little by little, from the higher classes to those below them in the social scale—that fresh meat, for instance, as a consequence of the practice of storing hay for winter use, would gradually supplant salt meat, as an article of diet, among all who could afford to purchase meat, and that this salutary change, conspiring with a growing command of wholesome vegetables and fruit, would drive out, as we know that it did, the scorbutic disorders which scourged our ancestors by land as well as at sea. In like manner, the use of linen for body-clothing, which, with the very appropriate accompaniment of soap, is also said not to have become general till towards the close of the 17th century, would gradually descend from class to class, and carry with it new facilities for cleanliness, so essential to health and so conducive to self-respect. So also with tea and coffee. It must have been by slow degrees that these wholesome competitors with intoxicating beverages spread from the higher classes to the lower, so as gradually to supplant them, and to root out silently and imperceptibly those baneful habits of excess which were once the disgrace of our aristocracy, and are now the curse of our poor.

Improvements in the drainage of town and country, in the arrangement of streets, and the construction of houses, must have been of equally gradual introduction. The same remark applies to the extension of the great boon of vaccination during the first half of the present century. The great sanitary improvements in our prisons and ships must also have had their reactions on the condition of the people at large, as well as a direct tendency to diminish the aggregate mortality, and improve the health of the nation.

Nor is it to be doubted, that moral causes have contributed their share towards this improvement in the health and physical condition of the people, as these in their turn have reacted upon their morals. The great mass of the population successively emancipated from slavery and serfdom, and attaining, by slow degrees, a greater and greater measure of personal freedom; external wars becoming less and less frequent, and the intervals of peace longer and longer; the disastrous conflicts of civil war exchanged for the bloodless strife of parties; frequent rebellions on the great scale for occasional riots; cruel persecutions slowly supplanted by a toleration perhaps verging on indifference; sanguinary punishments succeeded by a tender regard for human life, and a sympathy with the criminal sometimes degenerating into weakness; industry and commerce, formerly hemmed in and shackled by unwise restrictions or diverted into unnatural channels by equally unwise encouragements, now freed from almost every legislative impediment, and aided by unexampled facilities of intercommunication;—to crown all, education making unheard of inroads upon ignorance, and the Church of England more than ever alive to its responsibilities—more than ever conscious of its privileges—more than ever devoted to its duties, imbibing and directing the spirit of the times;—such are some of the social and moral changes which have accompanied our physical improvements, and by actions and reactions innumerable contributed to that general amelioration in the condition of the people, of which improved health and lengthened life are among the most significant indications.

The present aspect of affairs, too, is not less satisfactory than the review of the past is encouraging. After a commercial crisis, a famine and rebellion in Ireland, an epidemic of revolutions on the Continent, and an epidemic of cholera at home, we are approaching the close of the first half of the 19th century with a prospect of unwonted prosperity. Our granaries are stored with corn, our coffers glutted with gold, our industrious classes, for the most part, fully employed, at increased wages, our commerce in a state of unexampled activity, our revenue rapidly increasing, our local burdens fast diminishing, pauperism and crime perceptibly on the decrease. But, better far than all these signs of material prosperity, the natural consequences of an abundance of the first necessaries of life, we have the cheering conviction that the late awful dispensations of Providence, at home and abroad, have not been lost upon us. Of the convulsions of the Continent, it may be affirmed that they gave a perceptible impulse to every work of benevolence which aimed at effecting a substantial and permanent improvement in the condition of the people; of the cholera, that no pestilence ever yet left behind it such salutary recollections. It has not only fulfilled its Divine mission as a destroyer, but, in an eminent degree, its mission as a teacher. It has set its seal to the leading tenets of the sanitary creed; and the Church of England, and the nation at large, have bowed to its authoritative teaching. It was under the salutary dread which it inspired that the Public Health Act was passed; it is with the wholesome recollection of its ravages among the poor, whom we had so cruelly neglected, that its provisions will be carried into effect.

But let us beware how we suffer ourselves to be beguiled, by a contemplation of past progress or present prosperity, into a forgetfulness of the gigantic evils which are around us and about us,—evils, physical, economical, and moral,—which we cannot contemplate without a shudder, whether we view them as patriots, as philanthropists, or as Christians. In spite of all our sanitary improvements, a frightful mortality and an overwhelming amount of sickness, admitting of prevention; in spite of all our efforts to promote education, an appalling amount of ignorance, secular and religious; in spite of an admirable system of police, and a most costly system of prison discipline, a progressive increase in the number of criminals; in spite of a most lavish expenditure of money in charity, one-sixteenth part of our population more or less dependent on the Poor-laws for support; in spite of perfect personal freedom, and almost perfect equality in the eye of the law, the masses groaning under the tyranny of competition, or in the receipt of wages scarcely sufficient for the support of life, and, as if this were not enough, submitting themselves, to an unheard-of extent, to the voluntary slavery of intemperance; in spite of the untiring activity of manufactures, trade, and commerce, a perfect army of vagrants, carrying loathsome diseases, and still more loathsome habits of life, from village to village, and town to town!

But I must not allow myself to be drawn aside, by reflections such as these, from the demonstration which I have taken in hand, of the dependence of pestilential diseases on physical causes admitting of removal. The facts which I have already adduced have rendered such a connexion highly probable; those which I have now to bring forward will place it beyond the reach of doubt or cavil.

I propose to illustrate and enforce this great truth, in the first place, by a reference to the history of the three diseases of which I made special mention in my first lecture—scurvy, small-pox, and gaol-fever,—diseases which connect themselves inseparably with the names of Cook, Jenner, and Howard. I place these three diseases in this order (gaol-fever last,) because I wish to pass from gaol-fever to typhus fever—from the pestilence of the prisons of the last century to the pestilence of the houses of this. I shall thus be able to furnish you with a parallel, fraught with instruction and encouragement. Scurvy will supply us with matter for the next lecture; small-pox and gaol-fever will make up the material of my fourth and fifth lectures.

In this place, let me say a few words in explanation of the precise scope and plan of the present short course of lectures, and of the meaning of that "especial reference to the parochial functions of the clergy," of which mention has been made in the advertisements. Two modes of treating my subject were open to me. I might endeavour to establish a few leading truths and broad principles, both with reference to the causes of disease, and the means of prevention; or I might enter into minute details on the subjects of drainage, ventilation, water-supply, house-construction, &c., interspersed here and there with suggestions for the treatment of diseases of common occurrence, and your behaviour in emergencies. Such a course I hope to be able to prepare for a future occasion (perhaps for next year); but this year, after much and anxious consideration, I have determined to adopt the first method of handling my subject, convinced,

that if I can succeed in impressing upon your minds a few great truths, and a few leading principles of action, you will be much better prepared for a career of usefulness than by the most minute and elaborate description of methods of procedure. Once fully alive to the grandeur and importance of the subject, and its bearing upon morality and religion, you will soon possess yourselves of all the practical information of which you feel that you stand in need. I shall hope to redeem the promise involved in the title of these lectures, by availing myself of every opening which this mode of handling my subject affords, to suggest to you how best you may improve the health and promote the temporal well-being of your future parishioners.

LECTURES
ON
THE CHEMISTRY OF THE POISONS.

By H. LETHEBY, M.B.,

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LECTURE XX.

Chemical Properties of Phosphorus continued.—Action of Water on it; of Acids; of Alkalies and Earths; of Solvents (Solubility of Phosphorus in Acetic Acid, Alcohol, Ether, Olive-oil, Turpentine, Bisulphuret of Carbon, &c.); of Metallic Compounds.—Action of Phosphorus on Organic Matters.—Tests for Phosphorus.—Fallacies of these.—Quantitative Analysis of it.—*Post-mortem* Appearances in Cases of Poisoning by it.—Antidotes to it.

Proceeding with our inquiries into the chemical properties of phosphorus, we have now to consider the nature of the changes which take place when it is submitted to the influence of compound bodies; and we will first examine

The Action of Water on this Substance.—It is generally supposed that phosphorus is quite insoluble in pure water; but there are many reasons for believing that this supposition is not founded in fact. Many years since, Alphonse Leroy remarked, that the water which stood over phosphorus acted as an aphrodisiac and powerful poison to drakes. Berzelius also has stated, that pure distilled water perfectly freed from air will take up enough of this body to acquire a luminous appearance in the dark; and Leopold Gmelin, in commenting on the solubility of phosphorus, says, that water which has been exposed to the action of finely-divided phosphorus, apart from the influence of atmospheric air, possesses, even after it has been boiled and filtered, a distinct odour of phosphorus, and has the property of diffusing white fumes through the air of the vessel in which it is collected—effects which cannot, as he thinks, be due to the small quantity of phosphorous acid present, but rather to the solubility of a small portion of phosphorus itself. Murray, who is an older authority than the preceding, has noticed that the water in which phosphorus is kept acquires a peculiar taste, a poisonous action, and the faculty of emitting a faint light when it is mixed with boiling water; and, lastly, Devergie has asserted, that phosphorised water possesses an alliacious odour, emits luminous vapour in the dark, and gives a brown precipitate with nitrate of silver. Orfila is of opinion that these effects are due to the presence of phosphorous acid and phosphuretted hydrogen—two compounds which result from the decomposition of water; but I am rather disposed to think, that they are dependent on the action of phosphorus itself; for in my own experiments I have noticed that when warm recently distilled water is poured on finely-divided phosphorus, atmospheric air being entirely excluded, the water acquires, even in a few hours, a distinct garlic-like odour; it also evolves white fumes when it is heated, and it occasions a dark discoloration when it is added to a solution of nitrate of silver—effects which seem to indicate that phosphorus is really soluble to a slight extent in this liquid.

Should the water, however, in which the phosphorus is immersed, be exposed to the free access of air, it then somewhat more readily acquires a phosphoric impregnation, in consequence of the formation of several acid compounds. This takes place most readily when the phosphorus is only partially covered with water, but it also occurs, to a slight extent, when this substance is completely submersed. I have found, for instance, that when ten grains of phosphorus, in a single piece, are exposed for fourteen days in a cup containing a fluid ounce of water, the temperature being about 60° Fahr., it loses exactly one-tenth of a grain in weight; the loss is not greater if the phosphorus be previously cut into small fragments, showing that the amount of oxidation is not influenced by the extent of surface. But, if sixty grains of phosphorus are only half covered with water, and exposed to the air for a week, they lose about 6·7 grs. by oxidation and solution; and, on examining the water, we shall find that it has acquired an unpleasant smell, a very acid taste, and that it gives white precipitates with solutions of lead, mercury, and silver, effects which result from the presence of phosphorous acid.

Phillips, Gmelin, Dupasquier, and others, have, however, demonstrated that phosphorus, apart from the influence of air, will, in the course of time, become oxidised in pure water. This takes place in consequence of the decomposition of the latter, and the simultaneous formation of phosphuretted hydrogen. Gmelin has shown that these changes are effected most readily in direct sunlight; but they are also brought about in the diffused light of day, and even in situations where the influence of light is totally excluded. In illustration of the last remark, I may state, on the authority of Corquet and Dupasquier, that when phosphorus is allowed to remain for some time under water in the closed tin boxes in which it is usually exported, the air contained in those boxes becomes explosive, and, consequently, when an attempt is made to unsolder the lid of one of them by means of a red-hot iron, the imprisoned gas immediately takes fire, and gives rise to a detonation which bursts the vessel, and sometimes even causes the phosphorus to be projected to some distance. This phenomenon is evidently the result of the mixture of an inflammable gas with air; and, as the explosion occurs at a red heat, it is manifest that the gas cannot be pure hydrogen, but is rather the phosphuretted compound to which I have alluded—a gas which fires at a comparatively low temperature. Gmelin has confirmed this opinion by experiment. He took a flask and completely filled it with water and granulated phosphorus; then adapted to it a bent tube containing a little water; and he provided against the admission of air by plunging the distal end of the tube into mercury. After a period of six weeks, the apparatus having been exposed during the whole of that time to the rays of the summer sun, he noticed the following effects:—1st, That the water contained in the tube had become acid, and that it gave a white precipitate with bichloride of mercury, and a brown one with solutions of copper and silver. 2ndly, That when the contents of the flask were heated to the boiling point, they evolved about 1-20th of their bulk of phosphuretted hydrogen, a gas which was not spontaneously inflammable, though it was absorbed by a strong solution of copper. These results illustrate, in a very satisfactory manner, the mutual reactions of water and phosphorus. They also give a tone of probability to the theory advanced by Gmelin concerning the production of Rose's white opaque phosphorus, namely, that the white crust which forms on the surface of this solid when it is exposed to the combined influence of light and water is due, first, to the formation of phosphoric oxide and phosphuretted hydrogen; and, secondly, to the mutual decomposition of these compounds and the precipitation of phosphorus in a finely divided state; the former change taking place in the light, and the latter in the dark.

Action of Acids on this Substance.—Muriatic acid does not attack phosphorus even at a boiling heat. Sulphuric acid also fails to act on it at ordinary temperatures, but it rapidly oxidises it at temperatures above 200° Fahr., the reaction being accompanied with the evolution of a pungent gas (sulphurous acid). When the oil of vitriol is diluted with water, so as to have a density below 1500, it ceases to produce these effects. Most of the acids which contain a large proportion of oxygen, as, for example, nitric, iodic, chloric, bromic, &c., act on phosphorus with still greater energy than the preceding. In the case of nitric acid, you may perceive that it slowly dissolves phosphorus at ordinary temperatures, and that it does so even when the density of the acid is reduced to 1090. You may remark, also, that heat facilitates this action; so much so, that phosphorus will take fire in boiling aqua-fortis, and will often produce a dangerous explosion; hence the necessity of diluting the acid before it is made hot with this substance. During the ebullition of dilute nitric acid with phosphorus, the latter is oxidised, and

many volatile compounds are set free; among these are phosphorous acid, phosphuretted hydrogen, (according to Wittstock,) nitrous acid, and binoxide of nitrogen. In order, therefore, to effect a perfect oxidation of this body, by means of dilute nitric acid, it is necessary to conduct the process in a retort, so that the earlier volatile products may be collected and poured back again into the mother liquor. This precaution is adopted in the directions for making dilute phosphoric acid of the London Pharmacopœia; and you are also advised to employ an acid whose density is about 1100, using 14 parts of the acid to 1 of phosphorus; but, judging from the investigations of Wittstock, I think it is better to use the acid a little stronger, as, for example, of sp. gr. 1200, 13 of which will oxidise 1 of phosphorus. In the first stage of the process, it appears that phosphorous acid alone is formed, but gradually, as the liquid becomes concentrated to about half its bulk, a brisk effervescence ensues, and then phosphoric acid is produced.

Nitro-sulphuric and nitro-muriatic acids oxidise phosphorus with great facility. This change takes place quietly in the cold, but it occurs with explosive violence when the liquids are heated to the boiling point.

Some of the organic acids dissolve phosphorus in small proportion. Strong acetic acid will, for example, take up enough of this substance to acquire a garlic odour and a faintly luminous appearance, to discolour a solution of nitrate of silver, and to evolve white fumes when it is heated. Devergie and Orfila both speak of the acetic solution of phosphorus, the former saying that it gives a black precipitate with nitrate of silver when it is evaporated nearly to dryness, and then touched with this re-agent. In my own experiments, I have found that pyroligneous acid, of sp. gr. 1040, dissolves about 0.04 per cent. of phosphorus, but a weaker acid is without action on it.

Action of Alkalies.—When phosphorus is allowed to remain in contact with any fixed alkaline, or alkalino-earthy solution or paste, it soon begins to decompose the water of the mixture, and to evolve bubbles of phosphuretted hydrogen—a gas which smells very unpleasantly, and often takes fire directly it is disengaged from the surface of the liquid. If the phosphorus is boiled with these caustic solutions, the reactions are much more active, and a large proportion of spontaneously inflammable gas is thereby generated.

Action of Solvents on Phosphorus.—I have already told you that strong acetic acid will dissolve about 0·04 per cent. of this body, and I have now to state that alcohol of sp. gr. 834 will take up 0·4 per cent. of it; ether of sp. gr. 758, 0·9 per cent.; olive-oil of sp. gr. 916, 1·0 per cent.; and turpentine of sp. gr. 996, will dissolve as much as 2·5 per cent. These solvents do not, however, immediately take up the proportions which I have named, but they require a little time for the full manifestation of their action. I regard this as a matter of some importance, and shall therefore record the results of a few experiments upon it, presenting them to you in a tabular form.

Table showing the Solubility of Phosphorus in different Liquids at different Periods of Action.

The Liquid Used.	Quantity by Measure.	Quantity by Weight.	Amount of Phosphorus taken up during 1st Day.	2nd Day.	3rd Day.	4th Day.	5th Day.	6th Day.
Alcohol ...	℥j.	400 grs.	·31	·42	·54	·86	1·5	1·6
Ether	℥j.	364 ,,	2·9	3·	3·1	3·3	3·3	3·3
Olive Oil...	℥j.	440 ,,	1·0	1·3	2·4	3·0	4·0	4·4
Turpentine	℥j.	478 ,,	3·1	4·8	6·5	8·6	10·0	12·0

A more ready solution of this substance is effected by boiling the liquids with phosphorus and then letting them cool, so as to deposit the excess, in which case the proportions dissolved are those mentioned in the last column.

Phosphorus is also dissolved by naphtha, creosote, eupione chloride of sulphur, and bisulphuret of carbon; but of all these solvents the last named is the most powerful. Graham says that bisulphuret of carbon takes up about 20 per cent. of phosphorus; Vogel, that it dissolves about twice its weight of this body; Trommsdorf, 8 times; and Böttger as much as 20 times. You may, in fact, see from an experiment which I will now make, that a single drop of bisulphuret of carbon will instantly combine with and dissolve a large lump of phosphorus, and I have not the least doubt that it will easily liquify from 10 to 15 times its weight.

None of these solutions, excepting the oleaginous and acetic, fume in the air or shine in the dark until the whole of the volatile solvent has evaporated away. They all possess the disagreeable odour of phosphorus, and, to judge from the darkening effects of the evolved vapours on nitrate of silver and sugar of lead, there is every reason to believe that they give off some compound of phosphorus and hydrogen.

Orfila states that sugared water, infusion of tea, tincture of galls, solutions of albumen and gelatine, milk, bile, &c., do not dissolve phosphorus at ordinary temperatures; and, I may add, that this substance is not affected by liquor ammoniæ, or by solutions of alkaline carbonates, sulphates, or phosphates.

Action of Phosphorus on Metallic Solutions.—A very few experiments will show you that solid phosphorus exerts a powerful reducing action on many of these liquids. It does, for example, instantly precipitate the metal from solutions of gold, silver, platinum, and copper; and you will notice that it operates in a similar way, though more slowly, when it is added to the salts of bismuth, mercury, and tin. As far as my own observations have gone, it does not appear to act on the solutions of lead, iron, manganese, zinc, antimony, or arsenic. When the phosphorus exists in a soluble form, it produces black precipitates with the salts of silver and copper; a yellow one, soon becoming orange or brown, with bichloride of mercury, and a light buff deposit with the acid nitrate of bismuth. These reactions are all well marked when you employ the alcoholic and etherial solutions of this substance; but they are not quite so evident when you resort to the oleaginous liquids, unless they are diluted with alcohol.

ACTION OF PHOSPHORUS ON ORGANIC MATTERS.

I have not been able to discover any particular effect when phosphorus is mixed with sugar, albumen, blood, &c. In this respect my observations are quite in accordance with those made by Orfila, who found, as I have already said, that phosphorus was not dissolved by any of the animal fluids at ordinary temperatures. Mialhe, however, believes that the absorption of this substance during its passage through the alimentary canal, is due to the solvent action of the intestinal secretions, all of which are alkaline in their nature; but the researches of most toxicologists have rendered it probable that phosphorus is not dissolved *per se*, unless it be mixed with fatty matters, but that it is oxidised before it is admitted into the circulation.

Again, phosphorus does not exert any peculiar action on the dead mucous membrane, unless it be freely exposed to the air, when, by absorbing oxygen and forming acid compounds, it softens the tissue, discolours it, and in process of time dissolves it.

TESTS FOR PHOSPHORUS.

1st. *Its Odour.*—This is evident when you are manipulating with very small portions of this body. You may recognise it, for example, in the acetic solution, which does not contain more than one part of phosphorus in 2500 of vinegar.

2ndly. *Its Property of Fuming in the Air, and of Shining in the Dark,* is manifested only when you are examining the solid substance in a dry state, or the solutions of it in vinegar, water, or fixed oils. It is not made evident when you are experimenting with phosphorus dissolved in ether, alcohol, turpentine, or sulphuret of carbon, until the whole of these solvents have passed away. The application of heat, however, tends to facilitate these effects, so much so that a single drop of phosphuretted oil, let fall into a basin of hot water, will produce a vivid luminosity which is recognisable in the dark for a period of some seconds. In this case we cannot have used more than the one-hundredth part of a grain of dissolved phosphorus. The same effects are also produced when we employ an ethereal solution of this substance; and they are even manifested in the form of bright scintillations when we drop the alcoholic liquid upon warm water: in which case every minim of the solution contains about the four-hundredth part of a grain of this body. Solutions of phosphorus in turpentine, or other volatile oils, cannot, however, be made to shine in the dark, or to fume in the air.

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3dly. *Its Faculty of Evolving Oxone, &c., in Damp Air.*—As I have already demonstrated, the vapours which are given off from damp phosphorus are recognized, not only by their odour and appearance, but also by their reaction on certain chemical compounds; for, as you have seen, they darken a strip of paper moistened with nitrate of silver; they redden litmus paper, and then bleach it; they decompose the paste of starch, and iodide of potassium, giving it a violet blue tint, or, if dry, a brownish red one; and they discolour the proto-salts of manganese; but they do not act on paper moistened with sugar of lead, unless the phosphorus is combined with the bisulphuret, or with some hydrocarbon, as turpentine, ether, alcohol, olive, &c., in which case they always blacken it. These reactions are easily manifested by putting two or three drops of an oily solution of phosphorus into a wide mouthed bottle, and then introducing the test papers, so that they may hang freely in the evolved vapour. Some of these effects are also produced when you use the alcoholic or ethereal solutions of this body, but the presence of a volatile solvent does, in most cases, check the action of the vapour on iodide of potassium and proto-chloride of manganese. Again, if the solutions of phosphorus have been kept for some time, they generally evolve phosphuretted hydrogen, a gas which not only tends, like the preceding, to interfere with the normal reactions, but which also darkens a salt of lead, and in this respect simulates the effect of sulphuretted hydrogen.

4thly. *The Colour of its Flame and the Products of its Combustion* are very characteristic of its presence. This you may perceive by mixing a few small particles of phosphorus with a large amount of extraneous matter. On spreading the mixture over a piece of glass heated to the temperature of 200° or so, the phosphorus takes fire and burns with a bright yellow light. In the act of burning, it evolves a dense white smoke of pyro-phosphoric acid—an acid which may be collected in a glass funnel held over the flame, and then tested with its appropriate re-agents. Again, the bright yellow tint which phosphorus communicates to flame is evident even when you are experimenting with a few drops of the combustible solutions of this body.

5thly. *Its Reactions with Certain Metallic Compounds.*—I have already shown you that solid phosphorus possesses a strong reducing property, that it precipitates the metal from compounds of gold, silver, copper, mercury, &c.; and I have also demonstrated that the solutions of this substance in alcohol, ether, oil, &c., will occasion a black precipitate with nitrate of silver, a brown one with sulphate of copper, and a yellow one with bichloride of mercury. These effects are so characteristic, and withal they are so extremely delicate, that, with two drops of a saturated solution of phosphorus in oil, and one drachm of rectified spirit, mixed and divided for testing, into three portions, you can easily and satisfactorily demonstrate the presence of this poison; in which case you cannot have employed more than the six-thousandth part of a grain of phosphorus for each test. Moreover, you may notice that the reaction of this body with nitrate of silver is sufficiently sensitive to discover its presence even in an aqueous solution of phosphorus. Lastly, I ought to show you that the ethereal and alcoholic solutions of phosphorus give a white precipitate with sugar of lead, unless they have been kept for some time, when, as I have just stated, they produce a dirty white, or even a black, in consequence of the formation of phosphuretted hydrogen.

6thly. *Its Conversion into Phosphoric Acid may be made the means of Detecting it.*—This object is to be accomplished by boiling the phosphorus in a retort with twelve or fourteen times its weight of dilute nitric acid of sp. gr. 1200, collecting the products which distil over, and, after pouring them back again into the body of the retort, evaporating nearly to dryness, or until it reaches the temperature of 370° Fahr. By this means you obtain a thick syrupy liquid, which is very sour to the taste, and acid to litmus paper. Diluted with water and neutralised with ammonia, it gives a yellow precipitate with nitrate of silver, and a white one with lime-water, sugar of lead, chloride of barium, and ammonio-sulphate of magnesia, all the precipitates being very soluble in dilute nitric acid.

FALLACIES OF THESE TESTS.

Taking the reactions altogether, I am not acquainted with any substance which produces a similar set of phenomena. It is true, that decomposing organic matter, especially fish, may, under some circumstances, be slightly phosphorescent, and may evolve gases which have a disagreeable odour, and which darken nitrate of silver; but an oleaginous or ethereal solution of such matter will not produce the characteristic effects mentioned under the heads of 2, 3, and 5. Again, notwithstanding that the presence of sulphuretted hydrogen in a liquid may endow it with the power of blackening the salts of silver, lead, and copper, and of thus far simulating the effects of phosphorus, yet, as you may imagine, the liquid will have the faculty of shining in the dark, or of producing a yellow precipitate with bichloride of mercury; besides which, the odour of sulphuretted hydrogen and its reaction with sugar of lead and corrosive sublimate are so very different from those of phosphorus, that they are not likely to be mistaken. Finally, it is just possible that the products which result from the action of nitric acid on phosphorus might be confounded with an arsenical compound, were you not to remember that arsenious acid is volatile at a heat of 300° Fahr., and cannot, therefore, be present in the phosphoric residue, and that arsenic acid produces a dirty-red precipitate with nitrate of silver instead of a yellow one. But, independently of these differences, the fallacy is instantly recognised by means of sulphuretted hydrogen, which gives a yellow precipitate with the arsenical oxides, and none with the phosphoric.

QUANTITATIVE ANALYSIS OF PHOSPHORUS.

When phosphorus is mixed with foreign matters which are not soluble in bisulphuret of carbon, its amount may be estimated by treating it with two or three times its bulk of this liquid, then filtering, diluting with half its bulk of alcohol, and evaporating nearly to dryness *in vacuo*; the residue, after it has been fused in water and allowed to cool, is pure phosphorus. If fatty matters are present, the residue is to be well shaken in a small flask, with four or five times its weight of ether; and, after standing for an hour or so, in order that the pure phosphorus may subside, the supernatant liquor is to be poured off, and the residue treated with an aqueous solution of carbonate of potash, in which it is to be liquefied and then allowed to cool. When the product is weighed, it represents minus about 0·5 of a grain, which is carried off by every 100 grs. of ether, the amount of phosphorus present. These processes are, however, not applicable when you have to estimate very small proportions of phosphorus, as when you have to determine the amount of this substance in turpentine, oil, alcohol, &c. In these cases you must evaporate the solvent and then oxidise the phosphorus by means of a liquid consisting of one part of nitric acid, two parts of muriatic, and four of water. This liquid is to be distilled with the phosphoric compound, evaporated nearly to dryness, drenched with a little strong nitric acid, again evaporated, then boiled in water, filtered, and, lastly, precipitated with ammonio-sulphate of magnesia, taking care that the liquid in which the precipitate is formed is strongly ammoniacal. The precipitate so obtained consists of basic phosphate of magnesia and ammonia; it is to be collected, dried, and heated to redness in a platinum crucible, by which means it is converted into pyro-phosphate of magnesia, every 100 grs. of which represent 28·5 grs. of pure phosphorus. Several precautions are necessary in conducting this process, as—First, to be quite sure that the parent fluid does not contain phosphorus in any form as a *normal* constituent; secondly, to collect and return the first products of the distillation, so as to avoid loss from evaporation; thirdly, to take care that the residue does not contain unoxidised phosphorus; fourthly, to boil it well in water, in order to convert any pyro-phosphoric acid which may be present into the ordinary acid; and, fifthly, to guard against the precipitation of earthy or metallic bases with the magnesian salt, by first supersaturating the filtered liquor with ammonia, and then testing it with oxalic acid. But I shall again refer to this matter when I come to the subject of phosphoric acid.

POST-MORTEM APPEARANCES.

In all the cases of fatal poisoning by phosphorus *the alimentary canal* has been found inflamed in some part of its course; frequently the *mucous tissue* has been discoloured and softened; and in one case recorded by Orfila, that of a dog, the stomach was perforated in three places. *The intestines* were generally empty, or nearly so, as if they had been irritated; and in a case reported by Mr. Shephard there were ten invaginations of the small intestines, many of which in-

cluded from two to three inches of gut. *The peritoneal vessels* were always injected; the mucous surface was red, and in some places black, and, as it were, gangrenous; and the contents of the intestines were of a dark colour, like coffee-grounds. *The blood-vessels* of the chest and abdomen were filled with black semi-coagulated blood. *The lungs* were highly congested, and in one or two instances the pleural cavity contained a large quantity of sanguineous fluid.

All these effects indicate the action of a corrosive irritant. There is, however, much doubt concerning the form in which this poison operates. Devergie is of opinion, that phosphorus is itself a powerful irritant; yet he believes that it acts more energetically when, by oxidation, it is converted into hypo-phosphorous acid. Orfila, on the other hand, is disposed to think that the local effects of phosphorus are always due to the formation and action of a corrosive acid; for when this poison gains access to the circulation it quickly absorbs oxygen from the air in the lungs, passes into the state of phosphorous acid, and perhaps also of phosphoric, which immediately produce an active inflammation of the pulmonic tissue, then a stagnation of the blood in it, and lastly fatal asphyxia. This opinion is, to a great extent, supported by the experiments of Majendie, Worbe, Devergie, Orfila, and other toxicologists, who have noticed, that when phosphuretted oil is administered to animals, they soon exhale from the lungs abundant white vapours, which smell strongly of phosphorus; the respiration also becomes accelerated, the animals struggle for their breath, utter faint cries, and speedily die. The same effects result when the poison is given in a finely-divided state; and in all these cases the lungs are found to be highly congested. So again when phosphorus is administered in a solid form, there is every reason to believe that it undergoes oxidation during its passage through the alimentary canal; and by thus forming one or more acid compounds, it excites the local inflammation to which I have referred. In an experiment that was performed by Orfila, he found that 116 grains of phosphorus, given in 14 small pieces, lost 9·5 grs. in weight during their progress through the intestines of a dog, which they killed in 21 hours, from which he concludes that it is converted into hypophosphorous acid; but I have already shown you that the acid which is most commonly formed under these circumstances is phosphorous. It appears, moreover, from experiments made by the same author, that the oxidation of phosphorus does not go on with much rapidity when the stomach is full of food. This may perhaps account for the remarkable fact mentioned by Dr. Pereira, that Chabert, the celebrated "fire-king," was able to take as much as 16 grs. of phosphorus at a dose, without suffering much inconvenience, though he generally left the room a short time after he had swallowed it.

In addition to these, there are other effects which show that phosphorus exerts a peculiar influence over the nervous and urino-genital systems, both of which it frequently excites.

Lastly, I ought to state that M. Guilio, a Professor of Medicine at Turin, has published a work in which he endeavours to show that the irritating effects of phosphorus are due to the heat produced by the slow combustion of this substance in the alimentary canal; but, although this opinion is referred to by Orfila, yet I do not think that it is deserving of much serious consideration.

ANTIDOTES TO PHOSPHORUS.

The knowledge which we have obtained concerning the properties of this substance will, I think, convince you that there is not any *chemical* antidote for it. In cases of poisoning by it, you should endeavour, therefore, to remove the phosphorus from the stomach as speedily as possible. This may be accomplished by means of an emetic of sulphate of zinc, or by the aid of the stomach-pump; and, for the purpose of suspending the fragments of poison, protecting them from oxidation and neutralising their acid products, it is advisable to administer some thick diluent, such as chalk and water, magnesia and water, gruel, &c.

In the next lecture we shall consider the methods to be employed for the detection of phosphorus in organic matters. We shall also turn our attention to the impurities of phosphorus, and to the mode in which these are to be got rid of, and then proceed to inquire into the properties of the oxy-acids of this substance.

ORIGINAL COMMUNICATIONS.

ON SCALDING IN GONORRHŒA.

By JOHN L. MILTON, Esq., M.R.C.S.E.

1. *Remedies recommended; Objections to them*—2. *Animal Chemistry; Light it throws on the Subject*—3. *Probable Explanation and Treatment.*

I. Scalding may be looked upon as one of the most prominent and painful symptoms in this complaint; it is constantly present in every severe case, and has even been considered by some authors as the distinguishing mark between a pure and a spurious gonorrhœa. Although this is undoubtedly not the fact, yet it may be considered a good criterion of the progress of the case; for when the scalding is checked the running may generally soon be cured; and when it continues, and the running is stopped, we do not know how soon the latter may make its appearance again. It is a symptom to which, when present, the patient almost always directs the surgeon's attention, and one which it is almost impossible to subdue, or even materially alleviate, without removing the diseased state of the passages. When severe, and particularly if the patient be labouring under gonorrhœa for the first time, it is productive of great suffering, the urine feeling like molten lead or boiling oil, and in its passage over the mucous membrane, inducing violent spasm in the muscular tissue by which it is embraced. For these reasons I have judged it, along with chordee, worthy of careful investigation, and, with a view of obtaining some specific directions as to the best mode of relieving it, have carefully searched all the works from which I was likely to derive the desired information, but, I regret to say, without any very satisfactory result. After a diligent perusal of every work or paper to which I could obtain access, I have not been able to combat this symptom in a way that I could wish. Numerous remedies, it is true, are indicated, but they are so unsupported by statistics and cases, and so vaguely noticed, that I was reduced to the necessity of examining *seriatim* what effect they have on the urine and scalding, the result of which was the conviction, that the most of them possess very little power indeed over them. In order, however, to ascertain their precise action, I reduced them to the four following classes:—

1. Anodynes; as laudanum, morphia, belladonna, &c.
2. Demulcents; as linseed-tea, barley-water, gum Arabic.
3. Diuretics; as nitrate of potass, sweet spirit of nitre, &c.
4. Alkaline remedies; as soda, potass, magnesia.

With a view of avoiding every source of fallacy, these four classes were tried successively on great numbers of patients. Blank forms were prepared for registering every symptom connected with the advance or decline of the scalding in each particular case, and the patients were examined for the most part every morning; at the same time that nothing was omitted that could expedite the progress of cure; so that the result of these observations may be viewed as the history of the action of these remedies, tried on this one symptom in its ordinary state, and on a tolerably extensive scale. Nor can I here omit publicly noticing how much I am indebted to the advice and assistance of Mr. Gay, of Finsbury, owing to whose kindness these experiments have been made and brought to light.

To return to the subject, then, 1st, the effects of *Anodynes* may be stated as null; they were tried in the form

(a) Of laudanum. In some cases, where there was severe pain from other causes, it was pushed to the extent of 100 drops, without producing anything more than at times temporary relief; but even if of service, laudanum is a most objectionable remedy for this symptom, as its good effects do not in any way compensate for the constipation, headache, and languor it entails. Morphia, in small doses, was inefficient, and in large ones as objectionable as laudanum. Dover's powder produced no better result.

(b) Hyoscyamus alone, or combined with salines, appeared in some cases to hasten the disappearance of scalding when injections were used, but alone its effects were quite negative, and externally it had no very marked action; in addition to which it made a nasty filthy mess, one of the things to which almost every gonorrhœa patient most seriously objects.

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Belladonna I have not tried, nor have I much hope of any service from the use of it.

2. The *demulcents* exerted but very slight effect, though patients, in some instances, drank as much as a quart of thick linseed tea in a day. These remedies have been recommended by very many writers; they have been supposed to sheath the fluid mechanically, and thus prevent the acridity of the urine from acting on the inflamed mucous membrane. This idea smacks a little too strongly of Dr. Cullen's opinion, that, "in tabes venenata, one cause of emaciation is produced by an absorption of oil from the cells of the cellular membrane into the blood, for the purpose of inviscating the acrimonious spiculæ of the poisonous substance." It is not very probable that any portion of the mucilaginous matter, or gum, contained in them ever enters the bladder, or even the kidneys, being all previously digested and assimilated.

M. Lagneau (a) says, "The liquids act in two ways: 1st, by calming the general inflammatory disposition which is sometimes very active; 2ndly, by thinning the urine, the acridity of which would, without this precaution, infallibly augment the irritation." Against the first part of this explanation it may be urged, that the inflammation, when very active, requires much more energetic means to counteract it than a few pints of ptisan; and against the second, that water will effect the same end more cheaply and conveniently.

3. *Diuretics* seemed to have some slight effect; and the solution of nitrate of potass (ʒss. in o.j. of barley-water daily) has appeared, in some cases, to alleviate the scalding; but it had evidently no power of materially benefiting it, so long as the diseased state of the passages remained unabated; still I am bound to add, that its effects were more satisfactory than those of any other remedy of this kind I have as yet seen, when properly aided. It was carried, in some instances to the extent of ʒiss a day, but seldom without producing some sickness and pain of the stomach; so that I am disposed to hold it to be inadmissible in larger quantities than ʒss daily.

4. *The Alkaline Remedies.*—Of these, the carbonates of soda, potass, magnesia, and the liquor potassæ, alone, and combined with other of the remedies recommended, were tried. I was induced to use these from generally finding the urine acid in the suppurating stage of gonorrhœa. (b) I was as unsuccessful as with the others. The following results were obtained from the observations made respecting their action:—

(a) The urine became alkaline in some cases, but the acidity returned even when the alkaline remedies were continued.

(b) This change was not accompanied by a relative change in the scalding, and hence it may be assumed that this is, at the utmost, but little dependent on the mere acidity or alkalinity of the urine.

(c) This change ensued, in some cases, where no antacid remedies were used.

(d) The scalding was relieved without the acidity of the urine being affected.

(e) Where the patients were seen but once a week, these remedies were used during various periods of from two or three weeks to as many months, without, in some cases, relieving the scalding till the diseased state of the passages was removed by injections, &c., when it at once went away.

(f) In some cases, in the latter part of the suppuration stage, they were of service, when combined with other means, as injections; but of less service in the early part of this stage, where the diuretics gave more relief.

(g) In the scalding, which appears occasionally in a very sudden manner in the last stage of gonorrhœa, they were often of positive harm, and rather served to prolong it.

(h) Again, notwithstanding that the urine was acid in this stage, the nitric acid was often apparently productive of relief. I say apparently, because this scalding will sometimes come and go in forty-eight hours, and, therefore, it is extremely difficult to say what it is that carries it off, unless we had a remedy that did so in a much shorter space of time.

It is often very difficult to render the urine alkaline, though this may be accomplished by overwhelming doses of alkalies. Thus Wagner (a) found that ʒij. of carb. of soda rendered the urine alkaline in three quarters of an hour; but, as this could only be a transient effect, the dose would require repetition. The alkaline reaction lasted in this case three days, while ʒij. of acetate of potass only rendered it alkaline for sixteen hours. According to my own observations, neither small nor large doses effected this change in many cases so easily and readily as might have been expected. The following extracts from my notes will, I hope, tend to substantiate all I have stated.

Thomas Reeves took ʒi. of sulph. soda daily in barley-water. The first morning, the urine was acid, the scalding gone; but, on careful examination, it was found to have been nearly gone the day preceding, and it returned again.

Thomas Jones took, Aug. 1, ʒi. of sulph. of soda. On the 2nd (16 hours after), the urine was found alkaline, the scalding had gone; its disappearance was traced to the use of a warm bath. On the 3rd it had returned, and a warm bath again relieved it.

George Priest took ʒi. of carb. of soda and ʒi. of phosphate of soda in barley-water. He did not experience much benefit from them, the scalding having, in fact, gone from taking a warm bath. Eighteen hours after, the urine was acid, and, on standing, deposited a thick flour-like sediment; the scalding returned.

Charles Hill took ʒi. of the phosphate of soda in barley-water. Next morning the scalding was worse; the urine not examined.

George Thompson took ʒi. of nitrate of potass. and ʒss. of pulv. ipecac. c. in barley-water. Next day the urine was neutral, and the scalding not so severe; he repeated the dose, and the day after, the urine was strongly acid, and the scalding as severe as ever.

Henry Bailey had had scalding for fourteen days. By taking ʒivss. of nitrate of potass. and ʒiss. of pulv. antim., in eight days he was relieved, the disease having given way at the same time.

James Beatty took, between the 30th of May and the 1st of July, ʒiss. of carb. of soda and ʒi. of pulv. jalap in small doses three times a-day; the scalding gradually diminished, the disease going at the same time. During the first fourteen days he had no diminution of the scalding.

Thomas Robinson took ʒi. of nitrate of potass. and gr. xxiv. of pulv. antim. in six days. The scalding, which was going away, diminished under the use of this remedy.

Henry Hall has, July 2nd, acid urine and scalding. To take liquor potassæ ʒss. ter die. July 9th.—The urine acid; scalding still continues. To take the dilute nitric acid in decoct. of pareira brara. July 16.—The scalding gone, the urine still acid.

Samuel Evans, July 9th, while taking liq. potass., was suddenly attacked by scalding; urine acid, sp. gr. 1028.

J. H. W., April 16th, has scalding from gonorrhœa. To take a scruple of nitrate of potass. and ʒss. of gum Arabic thrice a-day, with Dover's powder every night, and injections thrice a-day. 20th.—The scalding much relieved, and in a few days disappeared.

Thomas Robinson, July 23rd, had had scalding from gonorrhœa two months. To take carb. of soda, gr. viii., and opium gr. ¼ twice a-day. 25th.—The bowels confined; scalding much the same. Carb. of soda gr. xii. and pulv. jalap gr. iii. twice a-day; injection three times a-day. Aug. 1st.—Relieved; to go on. 8th.—The scalding has disappeared. Here the alkali was clearly of some use, as he had been using the same injection for two months, with mild aperients.

Two patients, with a slight clap of long standing and some scalding, were put, one on the soda and opium powder, the other on the soda and jalap. At the end of nine days they were examined again, having in that time taken each ʒss. of the alkali. The patient who had taken opium and soda had lost the scalding, and with it the discharge. In the other, who had, however, taken some beer, it continued unabated.

Charles Callinan had had scalding from gonorrhœa in a very severe form for some days. He was ordered a mild saline purgative, his bowels being confined, and to be injected three times a-day. The scalding disappeared in a few days, and did not return.

G. W., Esq., had very severe scalding from gonorrhœa.

(a) Exposé des Symptomes de la Maladie Vénérienne, Paris, 1815. Art. Traitement de la Blenorrhagie. Vol. I.

(b) The urine is generally said to be acid in a state of health; in Turner's Chemistry (8th Edition, London, 1847, p. 1302,) I find it stated, that "it has an acid reaction, or is neutral, and even alkaline, in a state of health."

(a) Handbuch der Physiologie, b. II., art. Harn.

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He took, July 7th, ʒi. of carb. of soda in water, and was injected. By the 8th, the scalding and other symptoms had diminished—the urine alkaline. He again took, 8th, p.m., ʒi. of soda, and was again injected. On the 9th, the urine was acid, and the scalding had diminished.

Joseph Marsh had scalding, for which he was ordered p. sod. c. jal. thrice a day. Thirty-five days afterwards, when he had regularly continued the medicine, and had taken ʒivss. of soda, the scalding was still slightly present.

Charles Lane has been some days under the use of nitrate of potass, without material benefit; to try the carbonate of soda (May 10th,) 10 grains, three times a day, and be injected. 13th.—The scalding is better, the urine neutral; go on. 15th.—The scalding diminishing, the urine neutral; go on. 16th.—The urine acid, the scalding giving way, the discharge diminished to a gleet; inject again, and go on. 17th.—He has got a cold; the scalding has returned as bad as ever.

It would be needless to pursue this point further. Enough, I trust, has been said to show, that none of these remedies act as a specific on the symptom in question. I will only stop to add, that benzoic acid was tried, with a view of converting the uric into the hippuric acid, and that it, like the rest, had no material effect.

It was while examining these points that I found, that those patients who took warm baths every day seemed to suffer much less from the scalding than the others; and that this seemed to follow from the warm bath alone, it being sufficient, with many, to carry off, not only the scalding, but the smarting from the injection. Struck with this fact, I carefully followed it up, and, as the means of obtaining warm baths in London are now within the reach of every person, I was able to obtain a tolerably long list of results, most of which verified the first observation. Wishing to go still further, I carefully examined the effects of abstinence, water-drinking, &c., on the urine. The observations on which these results were founded are much too extensive to admit of insertion in any periodical, and therefore I trust my readers will excuse my only giving the results. They were—

1. That the action of the warm bath was more potent than that of any other remedy, therapeutic or hygienic; but that it only lasted an indefinite time, varying from an hour to half a day.

2. That it was powerfully seconded by abstinence, not only from meat, but also from drinks of all descriptions, except water, and that great bulk was as objectionable as a stimulating quality of food.

Let us now see what light organic chemistry can throw on the subject. And here, as a preparatory remark, let me observe, that I will not dilate on such aphorisms, as that "we can, by a judicious choice of food, bring the urine into any state that may be wished for;" or that "the urine always becomes alkaline, when the food contains salts of soda, or potass, with organic acids, &c.;" because, even if we knew how much of the wished-for ingredient is contained in one pound of beef or a cabbage, the knowledge would be, in many cases, inapplicable. It is not every patient who can so regulate his diet, though we can give him, in the way of medicine, anything we like; and hence the remedy must be something admitting of general application.

II.—The principal information we could hope to derive from organic chemistry would be, to know if scalding depends upon the preponderance or presence of any one ingredient in the urine; but this I have not been lucky enough to meet with. It is true, I may have overlooked the right sources; for so vast are the contributions to this branch of chemistry, which have appeared within the last ten or fifteen years, that a mere practitioner finds himself, on approaching such a complicated matter, like a traveller, wandering on some trackless and interminable waste, where the obstacles to his progress thicken, and the goal appears more distant with every step he takes. Alfred Becquerel, in his "Semeiotique des Urines," (a) says, "The existence of a simple blenorrhagia, whether acute or chronic, only produces in the urine the presence of a small quantity of muco-pus, which is thrown down, sometimes in the form of flakes, sometimes in that of whitish filaments, rarely in large enough quantity to render the urine alkaline. When the running is very great, it sometimes happens that the urine passed in the morning, on rising, contains more muco-pus than that passed at other periods of the day, that there is a little albumen in it, and that it is less acid than usual." And in the statistics he has given of the quantity of urea, uric acid, &c., which he has detected in the urine of patients labouring under certain diseases, one of the cases quoted is that of a patient with gastritis and blenorrhagia. On this, the only case in his work bearing at all upon the subject in hand, much dependence cannot be placed, as regards gonorrhœa merely. We find in it, that the quantity of urea was not increased, and that the quantity of lithic acid was relatively less, but really normal, the quantity of water being augmented.

It now remains to be seen if that part of organic chemistry which relates to general pathology will yield a clue to this knotty maze. The urine being assumed to consist of water, extractive matter, salts, acids, and urea, I propose to examine them in succession, and see which can, with the greatest probability, be assumed to be the cause of scalding. The first ingredient may be set aside, as we know that it will, of itself, produce no smarting at a temperature of 80 or 90 degrees; the extractive matter cannot be admitted as a cause, seeing that it is generally held to be refuse tissue, or the colouring matter of the blood or urine; chemists being agreed upon this, though at variance as to which of the three it is. The salts are so small in quantity, many of them so inert, and some so frequently taken in large quantities without producing scalding, that one might be tempted to refer scalding to the acids alone, were it not, as I have said, that scalding goes on when the urine becomes alkaline.

The acids consist, generally, of lithic and lactic acids; the lithic acid is said occasionally to produce some scalding in other diseases, when large quantities of it are thrown off; and it is very probable that it, or its salts, (when alkalies are given) is the cause of scalding in gonorrhœa, yet this is often allayed by nitric acid, or at least when nitric acid is given; and, according to Prout (a), the mineral acids tend to produce lithates and lithic acid. The quantity of it in solution, however, can hardly be materially increased, for it is only soluble in 10,000 parts of water.

If it be the source of scalding, we ought to be able, in some measure, to control it. We cannot prevent its appearing to a certain extent, by any modification of the food; in fact, it will appear where no food whatever has been taken. Lassaigne found it in the urine of a maniac who had fasted fourteen days. Rudolph Wagner observed that it was found in larger quantity when he fasted than when using vegetable diet, or food freed from carbonaceous matter.

We can increase it, however; thus, under rich living, Wagner found it increase, but not to any great extent. Barral says that it increases when salt is used in the food. Becquerel gives, as causes of the augmentation of the matters held in solution in the urine, "rich living, and the introduction into the economy of an abnormal quantity of water. I shall demonstrate, further on," he says, "that, in this case, not only do the kidneys unload themselves of this unwonted quantity of liquid, but that this heightened action produces an increase in the sum total of the matters held in solution." It is probably from furnishing more abundantly a necessary medium of solution, and thus assisting assimilation, that water drunk in this way aids the production of lithic acid and other substances. He says, also, that "the production of lithic acid is increased by exciting drinks and fever." Drinks of this kind increase the scalding, probably by feeding the inflammation, while fever checks or suspends a gonorrhœa. Great general disturbance of the system not only increases it absolutely, but also relatively, by diminishing the quantity of water.

Can we diminish it in any degree? The facts above given tend to show that, by an apposite method we can; but not by drinking plentifully of bland liquids, as is so often recommended. Food freed from carbonaceous matters diminishes it most of anything, while it increases the quantity of the lactates (b), and a pure vegetable diet diminishes it, and lactic acid more than abstinence. The use of filtered water seems to diminish it absolutely, and the introduction, by the warm bath, of a quantity of water into the system, to diminish it relatively, like copious liquid evacuations, by increasing the quantity of water in the bladder and kidneys. These last two causes, however, act very differently.

(a) "Semeiotique des Urines," par Alfred Becquerel. Paris, 1841. P. 475.

(a) Prout, on Urinary Diseases. London, 1840.
(b) Rudolph Wagner's Physiologie. Hem.

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But the difficulty does not end here. It seems even doubtful if the lithic acid exist pure in the urine. Becquerel says it does not, and that it does not exist in this fluid in a crystallizable state, being prevented from crystallizing by the animal matter with which it is in combination or connexion; if it become crystallized it is insoluble, even in hot water, and consequently in the urine, and then is with difficulty acted on by such strong solvents as hydrochloric acid, or dilute nitric acid; that it may very easily become lithate of ammonia we know, for urea, by absorbing two elements of water, becomes carbonate of ammonia, and that this change is not uncommon, if Becquerel's statement be correct, that whenever the urine becomes alkaline it is by change in the composition of the urea. Lithate of ammonia is likewise much more soluble in the urine than lithic acid, and it may be formed, Prout tells us, when no food has been taken into the stomach; so that all the measures necessary for its appearance are always at hand in the system. Finally, it must not be forgotten, that however easily lithic acid may, by analysis, be detected in a free state in the urine, it may, by the very process of analysis, be separated from the combinations in which it exists in the body.

Is the source of acidity, then, to be sought for in the lactic acid? At the very first step towards answering the question we are met by doubts as to its being found at all in the urine, and as to its quantity if it be there. Berzelius has stated the proportion of this acid, with the lactate of ammonia and animal matter adhering to them, to be 17·14 in the thousand; this, however, Becquerel and others consider too high. In "Turner's Chemistry," p. 1302,(a) the following passage occurs in reference to the Table given by Berzelius:—"What in this analysis is called lactic acid and lactates is not so, but consists chiefly of organic matter, the precise nature of which has not yet been ascertained, but which is now known to contain kreatine and kreatinine;" and again, same page: "If lactic acid ever occurs in urine, it is probably an abnormal product, for Liebig has proved, by experiments on a very large scale, that normal urine, whether fresh or putrid, contains no lactic acid." Wagner is evidently opposed to this; nor is he alone. Prout says, p. 81:—"In ague and rheumatism, during the sweating stages of the paroxysms, immense quantities of acid (chiefly lactic acid) are thrown out by the skin, and sometimes by the kidneys." Becquerel says:—"The organic matters (principally lactic acid) are increased by febrile diseases," &c.; and I might multiply instances indefinitely to show that this acid is believed to be present in the urine. If it be so, food freed from carbonaceous matter would seem to offer the best means of diminishing it in the urine; but the use of this increases the quantity of the lactates, as the following table from Wagner will show:—

	During Abstinence.	When subjected to Rich Living.	On Pure Vegetable Diet.	On Food freed from Carbonaceous Matter.	
Lithic acid	1·183	1·478	1·021	7·35	Water.
Lactic acid	2·625	2·167	2·531	5·726 Lactates.	1·000

If, then, lactic acid do not exist, and lithic acid be not found pure in the urine, how comes it that the urine is acid? Liebig says that urine always contains hippuric acid in quantity equal to that of uric acid, and that both these acids are more soluble in a solution of phosphate of soda than in water, that this solution has an acid reaction, and to this he attributes the acidity of the urine. Moreover, Proust has detected benzoic acid in the urine, the source of which, it is thought, could only be hippuric acid.

We have now only the urea to notice. The effects of various applications to ulcerated surfaces would lead us to conclude that acids or alkalies are more likely to produce painful effects than urea, a substance nearly identical with carbonate of ammonia, and rarely, if ever, existing in excess in the urine. The real way would be for some chemist to examine the urine of gonorrhœa patients, and to inject into the urethra solutions of these substances, if patients complacent enough to allow such experiments to be made on them could be found.

On the whole, then, I think we may conclude, that though organic chemistry gives us vast results, yet it offers little towards the solution of the question in hand. It has not yet been so perfected that we can, upon giving a certain quantity of food and drink, say what will be poured out into the bladder in a given space of time, nor how we can, by simple and attainable means, at once prevent the appearance of a noxious ingredient in the urine. But such a state of knowledge is not unattainable; the contributions of individuals to so great a work, small as they are of themselves, are yet the necessary material for some master-spirit to work on. Each individual effects, in his own sphere, a necessary revolution in thought and science—a minute-stroke on the ever-beating pendulum of time—which may at a future date be welded into its proper form by a future Newton or Humboldt, and then we may cast the horoscope of a disease by an examination of the urine.

What, then, can we glean from these disjointed observations? Empirical practice must guide us, I fear, till chemistry has made further progress, and on this assumption I shall conclude by stating what deductions I think may be drawn from the materials brought together.

III.—1. I suppose that in gonorrhœa there is augmented action and more rapid development of epithelium; that this augmented action or inflammation soon casts off the flattened scales which form the outer surface of the epithelial covering in a state of health, and exposes the yet tender and unflattened cells, gifted, perhaps, with a much greater power of endosmosis than the firm flattened cells, to the action of the urine and injections. I consider it as very probable, that this is the explanation of the canal being so swollen, and also that when a block of such cells is suddenly detached, a sore place ensues in the membrane, or the unsupported vessels give way and bleeding follows.

2. I think that the scalding is owing to the action of the acids of the urine or their salts on this abnormally tender membrane.

3. That the best remedy for this is the free use of the hot bath and hot bathing to the penis and bladder, moderate abstinence and the use of no drink but filtered water, while at the same time we must steadily act on the disease, and endeavour more than anything else to subdue it.

4. If we wish to act on the urine it must not be forgotten that weak saline solutions will pass off by the kidneys, but that strong ones are apt to be determined to the bowels.

5. That with regard to the disease itself, a remedy has not yet been found which will act specifically on it, and that the action of the remedies in use is strictly limited—

(a) To preventing the action of fresh causes, as rest, abstinence, &c.

(b) To acting on the surface, as injections and copaiba.

(c) To relieving to a limited extent by derivation, as is the effect of aperients.

And that we have not a remedy which will directly and positively antagonise the actions set up in gonorrhœa.

40, Jewin-street, City.

(a) Turner's Chemistry, by Liebig and Gregory. London, 1847.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. THOMAS'S HOSPITAL.

By T. A. CHALDECOTT, Esq.,
House Surgeon.

LACERATED WOUND OF SCALP, WITH FRACTURE OF THE FRONTAL AND MALAR BONES, FOLLOWED BY ERYSIPELAS.

A mistake in the diagnosis of a disease is not, happily, always followed by a mistake in its treatment; or, if this does occur, it is of secondary importance, and easily remedied. Thus, if a man is brought to us suffering with pain in the chest, dyspnœa, and inflammatory fever, whether these result from pleuritis or pneumonia, the same treatment, though not equally applicable to each, may yet be pursued with advantage in either. But there are instances where the life of the patient depends on the accuracy of the diagnosis on which the treatment is founded. The history of these cases cannot be otherwise than interesting; and of this nature is the case I am about to relate.

Susan Harding, aged 33, single, a barmaid, of intemperate

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habits, was admitted into clinical ward, under Mr. Simon's care, Dec. 9, 1850, at 5 p.m.

She was in a state of intoxication. The persons who brought her declared that the wheels of an omnibus had passed over her head; but it was afterwards learned that she had been knocked down by the horses, and her head squeezed between the wheel and the kerb-stone.

There was a large irregular lacerated wound of the left temple and cheek, which was somewhat T shaped; the horizontal cut extended along the upper margin of the zygoma and the superior orbital ridge, almost entirely separating the upper eyelid; the perpendicular cut ran down the cheek close to, but not dividing, the external canthus; there was fracture of the frontal bone just over the commencement of the temporal ridge, and of the malar bone, close to the origin of its zygomatic process; both of these were merely perpendicular fissures, about half an inch in length. On the opposite side of the head, over the right ear, there was a slight cut, and the scalp was raised by effusion of blood. A small quantity of arterial blood escaped from the ear. There was no other injury.

There was vomiting; the pulse was 110 and weak; the general surface very cold.

The head was shaved, the wound, which was loaded with dirt, cleansed, and the torn parts adjusted as well as possible by means of a few strips of plaister, and heat was applied to the feet.

On the following day, she had recovered from the collapse, and was tolerably free from pain; there was no vomiting, and her bowels had been freely opened by a purge, given early in the morning; there had been no more bleeding from the ear. The parts about the wound, however, were swollen and inflamed, and accordingly all dressings were removed, and warm water applied.

On the 11th (the third day), there were considerable febrile symptoms; the pulse was 96 and hard, the skin hot, she was thirsty, and had no appetite.

That part of the wound which extended above the eyelid had united by the first intention, but the rest was much swollen and inflamed, and appeared inclined to slough. She complained of much pain in the left ear and in the mastoid process, and said that she was quite deaf on that side; but this did not appear to be the case. On the fourth day she had had a restless night, but was somewhat less feverish; the pulse was less full and weaker; the wound gaped much, and discharged a fetid sanies; she complained still of headache. Mist. sennæ comp. was ordered, the bowels being confined. On the 13th, (the fifth day,) she had passed a much better night, but felt very weak; the wound was beginning to slough. There were some swelling and indistinct fluctuation over the left temporal region; an incision was made, and a small quantity of pus escaped; pulse 96, small and weak. She was ordered wine ʒiv., strong beef-tea, and arrowroot. On the 14th (sixth day) she was much easier, and had slept well; the sloughing had extended, but there was less swelling and inflammation in the neighbourhood of the wounds.

On the morning of the 15th, (seventh day,) after a restless night, she became violently delirious, and attempted to cut her throat with a common dinner-knife, which was fortunately very blunt. I saw her at 9 a.m., and found her in a very excited state, attempting to get out of bed, and not answering nor appearing to understand any questions put to her; the eyes were staring, the pupils contracted, but not fixed, and she cried out at intervals, in a loud voice, "I'm alive, I'm alive," and no other words could be got out of her. The general surface was hot, but the face and lips were very pale; the pulse was 120, full, and jerking,—decidedly not weak, but bearing a fair amount of pressure. There were three distinct cuts in the front of the larynx, but these were mere scratches, not going through the cutis vera. The wound was quite without action; there was swelling over the forehead and left side of head, tender, but not red. I sent immediately for Mr. Simon. On his arrival, the symptoms remained much the same, with the exception that she was rather less excited. After careful consideration of the symptoms and history of the case, he came to the conclusion that the delirium was of that kind which so often arises from severe injuries in those who have led an intemperate life, and that probably, in this case, it was the precursor of erysipelas, of which he believed the swelling of the forehead and left side of the head to be the commencement. Accordingly, he ordered the nourishment to be continued, and increased the wine to ʒviij. a day, (ʒi. every three hours;) the effect of this to be carefully watched, and if, at night, the delirium were either relieved or not aggravated by the stimulants, and the patient were sleepless, three-fourths of a grain of muriate of morphia to be given. During the day she occasionally made an attempt to get out of bed, but was never violent, and towards evening she became more sensible. At 9 p.m., the wakeful state still continuing, and the other symptoms being much relieved, the dose of morphia was administered. The whole scalp was now somewhat swollen and tender. She had a quiet night, though not sleeping soundly, and on the next morning (the 16th) she was perfectly rational; the swelling had increased, and extended to the face; the wound was quite without action, and filled up with slough and dried discharge; the pulse was very weak—108; the bowels open. Wine increased to ʒx. Morph. hydrochlor. gr. i., h. s.

On the 17th, the swelling, now evidently erysipelatous, was attended with redness and had extended to the right side of the neck, which was very red and tense, threatening suppuration. The pulse was very weak, but she took her nourishment and stimulants well.

From this time, however, she began to mend, no suppuration occurred, and the swelling and redness gradually decreased, the pulse diminishing in frequency and gaining in power. On the 20th she had an attack of diarrhœa, which was stopped by an astringent draught. Wine, ʒxii. daily. On the 23rd the erysipelas had quite disappeared; the wound, though very sluggish, was beginning to show some signs of action at its lower edge, from which oozed up, on pressure, pus of a healthy character; her appetite was good and she slept well. The slough was some time in separating, but on the 14th of January, 1851, the wound was quite clean and the process of granulation was commencing; her strength was improving daily, and she had a good appetite. The wine had been diminished to six ounces. At the bottom of the wound there was exposed a piece of bone bared of its periosteum and quite white, about the size of a shilling; granulations, however, sprang up from this, and it is now (Feb. 1) entirely covered, and the wound is much smaller and healing fast, her health being very good.

Remarks.—The point of importance in this case was, of course, to determine from what cause arose the violent delirium which came on on the 7th day. If this was from inflammation of the brain the treatment should have been antiphlogistic, and a stimulant plan would most likely have taken away what chance she had of living; but, if it were from debility preceding erysipelatous inflammation, antiphlogistic remedies would, in all probability, have produced a fatal result in a woman of her habits and constitution, and an active use of stimulants and nourishment could alone enable her to combat the disease; and it was a nice point to determine which of these two was the case. The accident was of such a nature as might well cause some cerebral lesion, and the delirium came on at the time when we might expect this lesion to be followed by inflammation; there had been great pain in the head and in the left ear, from which, at the time of the accident, there had been bleeding. The delirium followed an improvement in her diet and the allowing of stimulants; it was of a different character to that usually observed in cases of debility; it was violent and it was impossible to obtain an answer from the patient. Now, in *delirium tremens*, generally, the wandering senses can be recalled for a minute, and the patient will answer questions sensibly enough. The pulse was not weak; the skin was of natural temperature, and without perspiration; in *delirium tremens* it is generally perspiring freely. All these facts were compatible with the possibility of her having some inflammation of the brain. But this delirium was the only evidence of disturbed action of the brain; there were no convulsive movements, no palsy, no affection of the speech, no vomiting. She had had considerable headache earlier in her illness, but the day before the delirium came on, this headache, instead of being aggravated, was diminished, and her chief complaint was of a feeling of weakness; no rigor had ushered in the attack. The evidence of power afforded by the pulse was contradicted by the extreme pallor of the cheeks, lips, and conjunctiva. The nature of the delirium is at best but a fallacious test. There was very sufficient cause, too, for the advent of the delirium on the supposition that it was owing to debility. The patient had been intemperate; she was brought into the hospital in a state of collapse, having suffered a very severe injury. For the first five days she had

been totally deprived of her accustomed stimulus, and had taken scarcely any nutriment; to add to these causes of debility, came the depressing influence of the morbid poison of erysipelas on her system, and then occurred the delirium, a thing rather to be expected than wondered at. The latter influence, however, could not be spoken of with certainty at the critical period of the diagnosis, because, as yet, no decided local symptom of erysipelas existed.

Now, we are advised in books and in lectures in a case like this, where there is room for doubt as to the cause of the delirium, to treat it as if inflammation of the brain were present. But in most cases, by carefully considering the history, and duly weighing the symptoms present, we shall find that one of these causes is much more probable than the other; and on this probability it will be best to act, cautiously of course, and using our treatment as a test of the accuracy of our diagnosis. Dr. Todd, in his interesting lectures on delirium and coma, says:—"Whatever theories we may adopt with respect to the causes of delirium and coma, clinical examination clearly shows that, in the vast majority of cases, there is no evidence that they arise from any inflammatory state of the brain. I should say, speaking very roughly, that of twenty cases of delirium and coma, one might depend on inflammation.(a)

Remembering then, that, even in an instance where the symptoms are equally balanced, which is very seldom the case, the probability is greatly in favour of a non-inflammatory state of the brain,—remembering that it is very easy to reduce the strength of the patient, but a much more difficult task to recruit his powers,—and remembering also that the stimulant treatment can scarcely prove more detrimental in a case of inflammation of the brain than the antiphlogistic plan in a case of an opposite nature, would it not be better for the majority of patients if the tentative treatment were of a stimulant nature.

In conclusion it may be observed, that we may learn from this case how important is the early and free administration of stimulants in erysipelatous inflammations occurring in persons of intemperate habits and broken-down constitutions; we may learn also that, even when a wound is very much lacerated, it is worth while to adapt it at first as well as possible, and thus give it a chance of uniting in part at least, if not wholly, by the first intention. In this case, the union of that part of the wound over the upper eyelid prevented the extension of the gangrene there, and the consequent increase of a deformity, already sufficiently disfiguring, which would have followed on it.

LONDON HOSPITAL.

By NATHANIEL WARD, Esq., F.R.C.S.,
Assistant-Surgeon to the Hospital, and Demonstrator of Anatomy in the School;
AND
ROBERT BRUDENELL CARTER, Esq.,

ACUTE RHEUMATISM.—PNEUMONIA.

Jane W., one of the nurses employed in the hospital, was placed under the care of Dr. Frampton, on the 23rd of December, 1850, suffering from acute rheumatism.

She is a widow, 50 years of age, active and temperate in her habits, but very corpulent. She had previously suffered two or three attacks of acute rheumatism, and had always perfectly recovered, her heart never having been involved. With these exceptions her health had been good.

She had been ailing for two or three days before the 23rd, but was not warded until the character of her illness was quite pronounced; and when Dr. Frampton saw her, she was labouring under all the symptoms of rheumatism, having pain and swelling of the knees, wrists, and shoulders, with considerable febrile disturbance, and profuse perspiration.

She was placed upon milk diet, and was ordered a mixture with magnesia and five minims of the tincture of colchicum, thrice daily.

On the 24th, she was much the same, and had slept at intervals during the night, although in considerable pain when awake. The tongue was white and moist, pulse 98, and the bowels had been twice acted upon during the twenty-four hours. A little broth was added to her diet, and she was ordered a warm bath, and to continue the mixture.

25th and 26th.—Much the same. The warm bath had been agreeable to her, but the pain caused by the necessary movement was so great that it was not repeated.

27th.—Not quite so well, had passed a restless night, having been disturbed by several evacuations from the bowels. She had a pulse of 112 beats in the minute, and complained of her throat, which was found to be a little relaxed. Dr. Frampton ordered the local application of a solution of nitrate of silver, which speedily removed this source of inconvenience. He also directed that she should take ten grains of Dover's powder at night, and ten minims of tincture of colchicum, in an ounce of chalk mixture, three times daily.

On the 28th, about noon, whilst on duty for Mr. Burch, the resident medical officer, my attention was especially called to her, in consequence of the accession of a new train of symptoms. I found her breathing 28 times in the minute, exhibiting much distress of countenance, and complaining of sharp pain at the infra-mammary region of the thorax; on the right side this pain being much increased by deep inspiration or by coughing. She had a pulse of 124—sharp, but not resistant; and had expectorated three or four masses of rust-coloured, viscid mucus, which remained distinct from each other, and adhered firmly to the bottom of the vessel.

At the close of each inspiratory act, well-marked, fine crepitation was audible at the base of the right lung, but no pleuritic friction could be discovered, and the sounds of the heart were perfectly natural.

She was ordered to take half a grain of tartarized antimony, with five minims of laudanum, every hour, and one grain of calomel in the interval between each two doses of the mixture.

6 p.m.—She was much easier; the countenance had returned to its natural expression, and the pain in side was now only felt when she attempted to take a full inspiration. The antimony had produced great nausea and prostration, but no vomiting; the respirations were 24 per minute; pulse 110; and she had expectorated two or three more masses of viscid mucus.

Midnight.—Pain almost entirely gone; pulse soft, 110; has had no more expectoration, and feels disposed to sleep, the rheumatic pains being also much relieved. To omit the calomel and to take the antimony only if awake.

29th.—Going on well; no thoracic pain or dyspnœa; countenance quite tranquil; expectoration free, untinged; pulse 100. She slept three or four hours towards morning, and now complains only of the rheumatism. To take a quarter of a grain of antimony every two hours.

30th.—No thoracic symptoms remaining, but the rheumatic pains a little increased. The bowels have not been relieved for two days. To suspend the antimony, and to take a mixture with carbonate and sulphate of magnesia three times in the day.

9 p.m.—The bowels freely responded to the cathartic, and the joints are somewhat easier, but there is a slight return of pain in the right side, and a little catch in the breathing. Ordered half a grain of antimony and one drachm of tincture of hyoscyamus in a draught immediately.

31st.—She slept pretty well during the night, although disturbed at intervals. The thoracic pain is better, but not quite gone, and she has a little dry cough.

℞ Emuls. oleos., ℥i.; ant. pot. tart., gr. 1-12th; tinct. hyoscy., ℥i. M. ft. haust.; ter quotidie sumendus.

From this time the history of her case is only that of recovery from rheumatism. On the 10th of January she was placed upon meat diet and gentian mixture, and on the 27th she departed to spend a few days in the country, before returning to her duties in the hospital, and, although very much reduced in bulk, she may be considered quite well.

This case suggested one or two very interesting questions.

Was the pneumonia part of the general rheumatic affection; or were two morbid processes co-existing in the same person?

If rheumatic, did it originate in the tissue principally affected; or did it commence in the pleura and spread by contiguous sympathy?

Was the amendment which followed the administration of remedies consequent upon their use; or was it only one manifestation of general improvement?

(a) Lumleian Lectures on the Pathology and Treatment of Delirium and Coma, published in the *Medical Gazette*.

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If non-rheumatic, may the improvement in the condition of the joints be ascribed to the constitutional effect of the antimony, or to the establishment of another disease in the economy?—R. B. C.

PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

QUEEN'S HOSPITAL, BIRMINGHAM.

By W. J. MOORE, Esq., House-Surgeon.

Among the numerous diseases to which the testicle is liable

SYPHILITIC SARCOCELE

occupies a prominent station; and, although chronic inflammation and enlargement may occur independently of syphilis, yet, in a great number of cases, it happens as one of the later secondary affections of that disease. Mr. Parker among his syphilitic cases, has frequently cases of this description.

James Ray, aged 25, was admitted into the syphilitic ward June 18. He has now an enlarged state of both testicles to about three times their natural size. They are hard and lobulated, giving no sense of fluctuation. He has but little pain or tenderness, excepting in the loins and along the course of the spermatic cord. Twelve months back he had two sores on the glands, the sites of which are now visible. He has observed his hair to fall off, but does not appear to have suffered from any secondary affections, beyond pains in the tibiæ at night.

℞ Pot. iodidi, ʒj. ter die. A drachm of mercurial ointment to be rubbed in the thighs every night.

He continued this a week, when the mouth became slightly affected. The testicles are much softer, and somewhat smaller than before. He continued the same plan, the mouth being kept slightly touched during a month, and was eventually dicharged July 25th, the testicles being their natural size, and nothing remaining except some slight hardness of the epididymis. The efficacy of mercury, especially when used as in this case, is very great in removing these syphilitic enlargements of the testicle, and without there is any contra-indication, it seems essentially requisite. There are, however, enlargements of the testicle occurring from other causes, which require a different treatment, and where the affection may effectually be got rid of without the aid of mercury, as by the plan of compression first introduced by Mr. Langston Parker. This method, although so effectual in the later stages of enlarged testicle resulting from gonorrhœa, will not be found serviceable in the syphilitic sarcocele.

Edward Nicholls, aged 30, was admitted January 5th, and stated, that some time back he contracted gonorrhœa, and had swelling of the testicle. For this he had treatment, but the testicle still remains much swollen, and is somewhat tender to the touch, although he has but little pain. There is some slight discharge from the urethra. Appropriate medicines were given for this latter symptom, and the testicle was strapped as above mentioned. He was finally discharged cured January 30th, the strapping having from time to time been renewed as required.

Fungus growths, granular protrusions, abscesses, &c., occasionally occur as the result of syphilitic sarcocele, particularly when the affection has been neglected, as often occurs amongst the lower orders, who, not feeling much pain as an attendant on syphilitic sarcocele, are accustomed to treat it very lightly. In most of these cases, the gland is wholly or partially destroyed, and various modes of treatment have been recommended, as escharoties, excision, &c. The following is an account of a case of this description lately under Mr. Parker:—

Samuel Kerrap, aged 35, was admitted into the Queen's Hospital, June 13th. It appears that five years back he had venereal sores, and has since suffered from secondary affections of the throat and skin. Four months back the testicles became swollen, but got better under treatment. Three weeks back, the left testicle became again swollen, and being neglected, the scrotum became at first red, and then broke into a sore. He has been salivated four or five times; and at the present time there is a distinct mercurial fetor, and the gums present the usual characteristics of mercurial action. On examination of the genitals, there is found a large cream-coloured mass about the size of a goose's egg, which projects over the adjacent surfaces of the scrotum, the latter being red and inflamed. It smells badly. Pulse is quick and weak. Much thirst, and general irritation. The question now arose, to what extent the texture of the gland was implicated; but, as the patient, on pressure being made behind the diseased mass at the posterior part of the scrotum, was aware of the peculiar sickening sensation which arises when the testicle is squeezed, it was inferred that some part at least of the gland was not yet so far gone as to forbid hope of its recovery. Mr. Parker accordingly acted on this opinion; a linseed-meal poultice was applied to the part, and a grain of morphia administered at bed-time. This was continued until June 20th, when all the slough had separated, and a healthy granulating surface was left. Mr. Parker now directed the edges of the scrotum to be brought together over the denuded testicle, which was accordingly done by means of ligature and plaister, being much the same practice as recommended by Miller in such cases. He was discharged August 2nd, the wound having entirely healed, and the testicle seemingly having sustained but little injury. We have had frequent opportunities of seeing him since; he remains quite well; and it appears extremely probable that the testicle will eventually fulfil its proper functions, if indeed it is not in a fit state already.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening, February 22.—Royal Botanic Society. Quarter to Four o'Clock.

Medical Society of London. *Subject*:—Dr. Tilt, "On Diarrhœa as a hitherto unnoticed Symptom of Menstruation, and on the Use of Purgatives at the various Epochs of the Menstrual Function." Eight o'Clock.

Guy's Hospital Physical Society. Eight o'Clock.

Monday, February 24.—Geographical Society. Half-past Eight o'Clock.

Tuesday, February 25.—Royal Medical and Chirurgical Society. Half-past Eight o'Clock.

Zoological Society. Nine o'Clock.

Wednesday, February 26.—Geological Society. *Subjects*:—1. Sir R. J. Murchison, "On the Silurian Rocks of Scotland." 2. Rev. P. B. Brodie, "On the Basement Beds of the Inferior Oolite in Gloucestershire." 3. W. K. Loftus, Esq., "On the Tigris Range of Western Persia." Half-past Eight o'clock.

Thursday, February 27.—King's College Medical Society. *Subject*:—Thomas Macknight, Esq., "On the Influence of the Study of Medicine on the Moral Character."—Half-past Seven o'Clock.

Royal Society. Half-past Eight o'Clock.

South London Medical Society. Eight o'Clock.

Friday, February 28.—Royal Institution. *Subject*:—Professor E. Cowper, "On Lighthouses." Nine o'Clock.

Saturday, March 1.—Medical Society of London. *Election of Officers.* Seven o'Clock. Mr. White Cooper, "On a Case of Spontaneous Collapse of the Antrum." Eight o'Clock.

Royal Medical and Chirurgical Society. *Anniversary.* Four o'Clock.

THE MEDICAL TIMES.

SATURDAY, FEBRUARY 22.

HOSPITALS AND THEIR USES.

In a late number, we referred briefly to the uses to which our hospitals were put, and to the benefits which also might reasonably be expected from them. To succour the sick, and to make the sickness available for the advancement of science, are the two grand duties which society demands from them.

There is one institution, however, of a somewhat differen

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kind, to which we have long been desirous of directing the attention of our readers, in the belief that it only requires to be known to command general sympathy and support. We allude to the Convalescent Hospital at Carshalton,—a title familiar to many who have been engaged in practice among the London poor, but not sufficiently well known to the great bulk of the Profession.

The Carshalton Hospital, near London, was founded some six or eight years ago, by a few benevolent persons, among whom the honoured name of Dr. Forbes stands pre-eminent, for the purpose of affording to the sick poor, and to those especially who had been discharged from the London hospitals, a temporary asylum, where they might have the incalculable advantages of good pure air, wholesome food, and a properly regulated regimen generally, before they returned to their laborious trades, and were again exposed to the thousand injurious influences which surround the homes of the London artizans.

The rules of the establishment are very simple. A subscriber's letter entitles a patient to the benefits of the Hospital, provided he be declared a fit subject by the London Committee. A selection is necessarily obliged to be made, as the hospital is of limited size, and its funds are at present small. If the patient be eligible, he is then sent to Carshalton free of expense, and is kept there for one month. Medical attendance is provided, but the chief remediable measures relied upon are exercise in the pure air, a good diet, and the regular habits enforced in the Hospital. We are informed that the improvement in the health of the London workman is sometimes almost incredible, and we can ourselves certify to having frequently heard individuals who had returned from Carshalton speak of it, and of the benefit they received there, in terms of the deepest gratitude.

The advantages of such an Institution as this are so obvious, as scarcely to require comment. From the very circumstances of the case, our London hospitals are generally obliged to leave their work half done. The acute disease may be cured, the broken bone united, or the operation-wound neatly healed; but beyond this the case is left very much to itself. A patient cannot be kept in hospital till his constitution has thoroughly rallied from the shock, and till the nutritive functions are again performed with perfect regularity and vigour. He is obliged to be sent forth, too often to return at once to a miserable and filthy den, and at once to endure, with an exhausted frame, the fatigues of, it may be, an unhealthy occupation. No wonder is it, that in this way the unfortunate artizan often sinks into a state of permanent ill-health; and when he is next admitted to the hospital, it is with an incurable disease.

No blame attaches to the Medical officers of our London hospitals for this premature discharge of patients; it is impossible to retain convalescent persons in the wards when numberless applicants are clamouring for their turn. The Hospital has done its part of the work, and probably done it well; but something else is wanted to confirm and ratify this work, and to secure it from the chance of its having been done in vain. The idea of a Convalescent Hospital, a few miles from London, to which such patients can be sent was an obvious one. It has been well worked out on a small scale at Carshalton, and, as we have already intimated, the results have been most satisfactory.

It is now proposed to extend the application and the benefits of this Institution. A new Hospital is in course of erection, on a piece of ground generously given to the Governors by Lord Ellesmere, and the number of patients will be considerably increased. To do this, however, funds are wanted; and it is with a view of entreating our professional brethren not to remain inactive when a scheme of such obvious utility is impeded for want of money, that we have now brought before them the nature and circumstances of this hospital.

It would be a most desirable thing to bring this Convalescent Asylum into connexion with the great London hospitals. Bartholomew's, or Guy's, or University College should *own*, as it were, a certain number of beds, which should be kept occupied with such convalescent patients as were deemed likely to be most benefited by country air and country regimen. A small subscription from each hospital would nearly support the Carshalton Asylum, which would then become *ex officio* and completely, what it is now only partially and incidentally, a great Sanitary depôt, in which the cures begun elsewhere might be perfected, and secured from relapse. Bartholomew's and Guy's would not diminish the actual good effected in their wards, if they devoted some part of their enormous incomes to providing for their convalescent patients the most effectual means for making permanent the good which has been effected.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

The Philosophy of Spirits in Relation to Matter, &c. By C. M. Burnett, M.D. London. 1850. 8vo. Pp. 312.

Here is a Book with a startling title, "The Philosophy of Spirits in Relation to Matter." The attempt is laudable to strike out a new path in philosophy. And it must be confessed, that a man who zealously applies himself to an untried mode of investigation, and honestly publishes the train in which his thoughts have run, even if his scheme turn out to be erroneous, will generally supply some new conceptions on the relations of things still hid in darkness, for which, in our time, the world is apt to give him too little credit. The great peculiarity of Dr. Burnett's work is, that he makes the authority of Scripture tantamount to demonstration in human science. "The existence of spirit," he says, "I assume to be fully ascertained through the medium of Revelation." He does not advert, as we think, to the serious inconveniences attendant on this mode of investigation. Surely one of the most conclusive evidences in behalf of the truth of Revelation, is its perfect accordance with many things determined by efforts of human reason. And, therefore, to preserve this important branch of the evidences of the sacred origin of the Inspired Writings unimpeachable, it is a rule to keep what human science has discovered altogether distinct from what Scripture reveals. Again, the design of Revelation does not extend to the laws of Nature, and to those parts of knowledge which lie within the reach of the human faculties, and, therefore, when reference is made to such things in the Sacred Writings, the common ideas of mankind at the time are made use of. On all those points, therefore, which do not directly bear on the rule of faith, truth is not to be inferred of the mode in which these are spoken of in Scripture. If these reasons against this use of Scripture be deemed insufficient, we must resort to an argument which cannot but weigh with a pious man like Dr. Burnett:—All philosophers are not good Christians,—nay, not a few of high name in science have been professed unbelievers, and, therefore, to make use of Scripture authority in subjects on which these men are entitled to reason, is but giving them an opportunity to scoff at things sacred. Though all Christians may be philosophers, it serves no good to expect all philosophers to be Christians.

We are far, however, from thinking, that there are no points of Scripture independently of what immediately concerns religion, which may not be turned to account in mere human science. But, to avoid the inconveniences just referred to, these points must be considered as so many suggestions of truths, the evidence of which, before they can be incorporated with human science, must be sought out in accordance with the ordinary laws of philosophy.

There is a well-known saying of Socrates, that the one thing that he knew was, that he knew nothing; the true

interpretation of which manifestly is, that he saw that the human faculties are limited, and, therefore, incapable of comprehending the whole scheme of the moral and physical world. We fear that Dr. Burnett has not sufficiently meditated on this sentiment. We have been accustomed to think that the subjects he has attempted to illustrate by his researches lie beyond the pale of human knowledge. We will not say that his speculations are as unprofitable as those of the schoolmen, when they disputed whether the number of angels that could dance on the point of a needle were limited or unlimited, or whether an angle was an affection of space or a property of matter; yet we do not feel assured that our notions of life, mind, and soul, have acquired any new exactness by the perusal of his book, notwithstanding the great amount of learning and science which he has brought to bear on these and other abstruse subjects.

According to our author, there are two kinds of entities, or created substances, in the universe; under the one fall the several varieties of spirit; under the other, the several descriptions of matter. Each of these kinds of entity acts upon the other kind in the production of the qualities of the bodies around us and of the phenomena termed the laws of nature. The substances belonging to both kinds of entity exist in the universe under two distinct forms. First, in union, as in every natural body, by which union the qualities of such bodies are produced; secondly, in an uncombined state, as in the atmosphere, from which they become combined, upon occasion, in vegetable and animal structures, and so as to give origin to the phenomena of light, heat, and electricity, and further, in the same state, they act to the production of the forces necessary to sustain the celestial bodies in their relative positions and motions. Among the examples of immaterial entities are the spirit of heat and the spirit of electricity. Among those of the material entities are the matter of oxygen and the matter of carbon. Natural bodies contain both kinds of entity; and, when the material part is separated from the immaterial atoms in chemical analysis, that separation is indicated by the actual disengagement of these spirits by light, heat, concussion, or report, according to circumstances. "Light and heat are the expression of phenomena, the result of the combined action of the two great entities of creation, materiality and immateriality." .... "To the phenomena of life, the spiritual substances causing light, heat, electricity, and magnetism, are as essential as food and air." And there also comes into operation the spirit of life; by this, in the vegetable kingdom, ternary compounds of the material elements are produced, and the degree of power to be exercised by the lower immaterial substances concerned, as the spirit of heat and the spirit of electricity, is regulated. In animal bodies, three, four, and even five material elements are held together "by the conjunctive and graduated powers of the spirits of electricity, heat, and life." The spirit of life builds up the organisation with the aid of the spirits of electricity and heat; and if the organisation has been built up in a certain manner, then the spirit of life by reaction produces the phenomena of sensation and muscular motion, and finally the phenomena of mind in general; for, according to our author, the phenomena of mind are not the result of a spirit of mind, which is not a substantive entity, but are merely the exhibition of a mode of action of the spirit of life on a peculiar organisation. "If there are capacious cerebral arrangements, it can do more than if those arrangements are upon a smaller and more contracted scale." Again, the spirit of man is his immortal soul, by the possession of which he is distinguished from other animals, and which has "the power of imparting to him alone of all created beings a knowledge of the existence and attributes of the Creator, and of his own existence and attributes."

Our limits, as well as the theological character of the remaining part of our author's system, forbid us to proceed further with this summary of his views.

We cannot waive the objection already made to mixing up views taken from Scripture with the researches of human science; but, looking on what he has borrowed from Scripture as hypothetical in relation to human science, and to be dealt with like any other series of hypothetical propositions, we shall consider for a moment what consistency our author's science maintains within itself.

An obvious objection to his scheme is, that without any warrant of Scripture, the term spirit is applied to such physical influences as heat and electricity, and also to the living principle of plants and animals, and to the soul of man. The spirit of life, in one essential respect, fails of strict analogy with the spirit of heat and the spirit of electricity—the two latter are, perhaps truly, represented as existing as a stock of energy, definite in quantity, which may be drawn on as circumstances arise, and made to combine with material elements, from which, being again separated in the decomposition of natural bodies, they return to the general stock. Thus, there is a definite amount of the spirit of heat and of the spirit of electricity which must have existed from a time coeval with the origin of physical nature. The spirit of life cannot be described as showing anything of this kind, either on the authority of Scripture or in man's experience—the spirit of life must be multiplied indefinitely in the act of reproduction, and, in the event of death, ceases to be manifested; but nothing indicates that, in each act of reproduction, a portion of this spirit is obtained from a general pre-existing stock, or that, at the death of a plant or animal, the portion of that spirit which belonged to either returns to such a stock. When, again, we look to the effects of the spirit of life in comparison with the effects of the spirits of heat and electricity, and particularly when we remember, that according to our author's system the phenomena of mind are the results of the spirit of life acting on a material structure produced by itself, the failure of analogy between the spirit of life and the two other so called spirits is still more striking. And still less can any analogy be discovered between the effects of the spirit of man and the effects of the spirits of physical nature.

Our author dwells at great length on the influence of what he terms the spirit of man over the mental faculties and attributes in the production of the phenomena of his moral nature, but we can hardly discover the extent to which he admits the power of that spirit over the same faculties in the results which are usually ascribed to his intellect, such as his success in discovering the laws of nature, and in subjecting these to his will, as in the prosecution of the many arts of civilized society. The solitary passage which we remember as bearing on this point is the following: "When placed under the influence of a higher and more discerning spirit, these same faculties are enabled to embrace the mathematics, and to discriminate and affix certain signs and particular sounds as they are comprehended in artificial language." We infer from this passage, that he does not design to ascribe man's wonderful acquired power over physical nature to the mere exercise of those faculties and attributes of mind which he says are the result of the action of the spirit of life over a high organism. We suppose that he regards these mental faculties as mere instruments by the use of which the spirit of man performs all those gigantic works and operations which mark his presence on the earth. We do him the justice to think, though he has nowhere distinctly said it, that he believes man's power to build ships and cities, to make the power of steam transport him over sea and land, and to measure the stars in their courses, is not the result of the mere faculties of perception, memory, and the like, which depend on the spirit of life, but that these faculties are made subservient to such uses by the spirit of man. We wish Dr. Burnett had applied himself to the investigation of this part of the subject, on the assumption that the mental faculties are the mere results of life. The great difficulty in Psychology has always been to find a generic distinction between the thinking principle in man, and the corresponding principle in the lower animals. If such a distinction lie within the range of human power, it can be established only in the generic difference of their respective effects; and this implies a hypothesis of their generic difference, borne out by observations of a difference to the required amount in their effects. On this point, then, Dr. Burnett's scheme is in the right direction. The spirit of man, as distinguished from his mental faculties and attributes, is a sublime conception; but this is not only not aided, but nearly overborne and suffocated, by his speculations on the spirits of electricity and heat. According to such a hypothesis, even consciousness must be a result of life—not a property of the higher spirit, but merely its instrument. This last notion corresponds in some degree with what Dr. Carpenter wished to prove, in a paper read at the last meeting of the British Association at Edinburgh, namely, that thought takes place through one part of the brain, and consciousness by another, and thus that there may be much thought that does not become manifested, or at least not manifested at the time it takes place. Flashes of genius in letters and science might thus be regarded as the manifesta-

tion of conceptions which had slowly arisen, unheeded by consciousness. As the operations of this higher spirit could become known, however, only through consciousness, if the organ of consciousness fail or become defective, they may take place, to a great extent, without any evidence of their existence. The operations of thought, so to speak, in the lower animals, do present a strong analogy with acknowledged operations of life; they are the result of distinct stimuli, such as external impressions; and the train, once in motion, continues on one definite plan common to all individuals of the species, till modified or interrupted by some like new stimulus. Much of the same kind of mental action takes place, also, in man; but that is true chiefly of the passive states of mind in man. Let a desire arise, and some before undiscovered power seems to be roused, and to bend all the faculties of the mind and body towards the execution of a plan already devised for its accomplishment. But we fear our readers will say, that we are following our authors' example too closely, and trenching on speculations forbidden to the limited resources of humanity.

It would be easy to turn Dr. Burnett's work into ridicule, the principles adopted being so different from those commonly employed in metaphysical and physiological writings. The work, however, much as we differ from its views, is far from deserving to be so treated. It is carefully put together in every part; and, though the sentiments have often the air of great extravagance, it is not to be described—which perhaps may be done—as a mere rhapsody. Moreover, it is a work of much learning, and many of the most recent discoveries of numerous sciences are brought to bear on his subject.

Address before the American Medical Association at the Anniversary Meeting in Cincinnati. By JOHN C. WARREN, M.D., President of the Association. Boston. 1850.

The Association, to the members of which this Address was delivered, has exerted a decidedly beneficial influence over the scientific status of the Profession of Medicine in America. The Address consists of a transient survey of the progress of surgery during the last fifty years, and, firstly, of the great men. Dr. J. C. Warren himself, he tells his hearers, acquired a knowledge of the rudiments of his profession in this country. He visited London soon after the death of Hunter, and became a pupil and dresser to Mr. William Cooper, uncle to Sir Astley Cooper. Subsequently, he was a pupil of Sir Astley. He witnessed Mr. Cline's celebrated operation on the sailor, who, after having been insensible for seven months, was restored to consciousness by the elevation of a piece of depressed bone. The general interest of the case was second only to that of Cheselden for cataract. "Mr. Cline, notwithstanding the danger of operating over the longitudinal sinus, determined to trepan."

"When the circular portion of bone was to be elevated, a death-like stillness prevailed in the amphitheatre; after it was elevated, and the blood gushed out as from an overflowing goblet, the stillness was broken by a simultaneous agitation in the whole assembly. Mr. Cline, with a gentle movement, covered the aperture in the sinus with lint, placed his finger upon it, saw that the blood ceased to flow, and raised his eyes towards the spectators with an indescribable expression of serenity, seeming to say, though he spoke not,—The danger is over. In the course of the day the patient looked about him, saw some person he had known in the early period of his life, and ultimately recovered his former state of mind."

Dr. Warren tells us that the borough students had among them a saying, "That Mr. Abernethy, in cutting his patients, was very apt to cut his own fingers." After leaving England, Dr. Warren proceeded to Paris, and attended Dupuytren's first course of lectures. A notice of the microscope, tenotomy, cold water, and ether, occupies the latter half of the address.

After a general survey of the action of ether and chloroform, Dr. Warren concludes "that we are not justified in using the more powerful but dangerous article, rather than the less violent but safer, and we should therefore advise the general disuse of chloroform."

Strong chloric ether, Dr. Warren states, possesses "all the advantages of sulphuric ether, and has none of the disadvantages of chloroform."

It is necessary, however, he observes, that the face should be anointed to protect it from irritation, when strong chloric ether is inhaled. The use of anæsthetics under the following circumstances will, we think, have few advocates on this side the Atlantic:—

"The agony of death is a fair subject for the influence of ether."

When there is "real suffering," "and when the mortal strife is so far advanced as to leave neither hope nor chance of recovery, the duty of a physician is to interpose the means by which we may be quietly conducted through the fatal moment."

Dr. Warren affirms that he has for many years adopted this practice when he has had the full assent of the patient and his friends.

Instructions in the Use and Management of Artificial Teeth. By JOHN TOMES, F.R.S., Surgeon-Dentist to the Middlesex Hospital. London: 1851.

Mr. Tomes has here given, in a separate form, the substance of a lecture on a subject of growing importance, delivered at the Middlesex Hospital School, supplementary to a course of Dental Physiology and Surgery. We are inclined to fear, that this department of dental practice is too frequently regarded as an inferior branch, and is thus handed over to those whose sole qualification is the possession of some mechanical skill. This is to be regretted, for by it not only is the patient defrauded of the legitimate result which the art is capable of affording when practised with an intelligent grasp of all its resources; but the art itself suffers in public estimation. The restoration of organs, the possession of which in a perfectly painless and efficient condition is not unfrequently an indispensable pre-requisite to returning health, cannot surely be regarded of minor importance.

The information here given, which is designed to qualify the student to become in after life the adviser of his patient, is eminently practical, and evidences a thorough acquaintance with the subject. We incline to think, however, that it savours rather of the consulting-room than of the lecture-hall, and that much of the space which is occupied by such simple explanations and directions as constitute the initiatory lesson on resorting to artificial teeth, might have been better devoted to other and certainly not less important matters:—What circumstances require, and what would seem to contra-indicate a resort to artificial aid of this description. If any, and what, are the limits with respect to age? How early in life may such aid be sought without detriment to neighbouring structures, and at what late period should we despair of a satisfactory result? To what extent may the changes which result from the absence of antagonising molar teeth be resisted or held in check, and what is the principle of construction best adapted to effect this object? Whether the same material should be employed in those cases in which the labial teeth become truncated by attrition, as in those in which they become elongated and unduly prominent? What condition of the oral secretions is favourable or otherwise to the employment of dentine, and under what circumstances inorganic substances only are admissible? Whether the roots of teeth, the crowns of which have been destroyed by caries, should be retained, and what peculiarities of constitution or temperament would render it probable that pressure upon such would give rise to neuralgia? The elongation of unopposed teeth, the oblique position into which some teeth become driven through imperfect antagonism, and their consequences, together with the alterations in the expression of the countenance arising from the shortening which, to a greater or less extent, occurs under these circumstances, as far as these can be controlled or remedied by mechanical aid, should receive consideration in a work which professes to treat of the use and management of artificial teeth. In a word, we have always found our author's contributions to the literature of his profession so sound and satisfactory, that we cannot allow anything which falls short of his own standard to pass without protest.

On the Nature and Treatment of Diseases of the Kidney, Connected with Albuminous Urine (Morbus Brightii.) By G. OWEN REES, M.D., F.R.S., Assistant Physician to, and Lecturer on Materia Medica at, Guy's Hospital, Principal Medical Officer to the Pentonville Prison. London. 1851.

It puzzles us much to imagine what could have prompted Dr. G. O. Rees to give this pamphlet to the Profession,—ninety pages on the Nature and Treatment of Disease of the Kidney, connected with albuminous Urine. In these

ninety pages of large type and broad margin are considered,—the Anatomy of the Kidney in Health, the Morbid Anatomy of the same organ in all its vastness, the General History of Albuminous Urine, the various Tests for Albumen and their Fallacies, the Pathology of the Affection, its Complications, its Causes, and finally its Treatment. The last forty pages of the book are occupied by an Appendix, consisting of an extract from the 10th number of Guy's Hospital Reports, and from Dr. Rees' Gulstonian Lectures for 1845; in which latter, Dr. Rees detailed experiments that he seems *still* to think conclusively prove the existence of a nucleus in the red blood corpuscle. We repeat, we cannot comprehend why this little book was sent to press. The Gulstonian Lecture and Guy's Hospital Report had already been published, and Messrs. Bowman's and Simon's, and Drs. Johnson's and Gairdner's papers are accessible, nay, even familiarly known, to students, while in vain we search the pages of the work for new facts of any importance, or old ones placed in new lights. A physician with opportunities so great as those afforded by Guy's Hospital, and the Pentonville Prison at his command, should have abstained from publishing, on "Bright's Disease" at least, till he had something to write worthy of his position, and the school in which the discovery of the disease itself was made.

The Scale of Medicines with which Merchant Vessels are to be Furnished by Command of the Privy Council for Trade, &c. &c., with Observations on the Means of Preserving the Health of Merchant Seamen, Directions for the Use of the Medicines, &c. &c. By T. Spencer Wells, F.R.C.S., Surgeon, Royal Navy. London. 1851.

Merchant vessels not carrying a surgeon are obliged, by command of the Lords of the Admiralty, to have in their chest a stated quantity of such drugs and surgical appliances as may be required in cases of disease or accident not admitting of delay. The list of these drugs, &c., with the quantities of each to be carried by ships of different burdens, is termed "the Scale of Medicines."

Mr. Spencer Wells's little book is intended for the use of the captains of these merchant ships, and his directions for the use of the edged tools they are obliged to carry is most judicious. An extract will exhibit the character of the advice, and Mr. Wells's power of adapting his language to the class he is instructing:—

"Cough attends many diseases of a totally different nature, and is a mere symptom of these diseases. The remedies, therefore, should be simple, as those proper for one disease might be injurious in another; but it is a good rule in all cases to abstain from stimulants, to live sparingly, to keep the bowels open, to avoid cold and damp, and to cover the chest with flannel. Whenever the cough is accompanied by pain in any part of the chest, to apply a large bran poultice as warm as can be borne, a mustard poultice, or a blister over the painful part."

We strongly recommend this little book to the captains, supercargoes of ships, &c., as a valuable guide in their medical duties.

On the Action of the Muscular Coat of the Bronchial Tubes in Respiration. By C. Radclyffe Hall, M.D., &c. Worcester, 1850.

Our knowledge of minute structure has during the past twenty years been much more increased than our knowledge of minute function, if we may use that expression. The microscope has revealed many wonderful arrangements, the precise object of which we have still to learn. It was, therefore, with much pleasure that we perused the pages of Dr. Hall's pamphlet, containing the results of a careful investigation into the mechanism of a function so vitally important as respiration. Dr. Hall believes that the muscular coat of the bronchial tubes performs rhythmical movements corresponding to the actions of the muscles of respiration.

At page 2, he says:—

"I have, then, to show, firstly, that it is not necessary that the bronchial muscular coat should be directly under the control of the will for the purpose of taking a regular part in the act of expiration; secondly, that elasticity would not answer the purpose here fulfilled by muscular contractility; thirdly, that it is not proved that the fibres of the bronchial muscular coat are incapable of the alternating forms of contraction, *i. e.*, of quick contraction and quick relaxation; fourthly, that the bronchial muscular coat is under the influence of the nerves to an adequate extent."

A detailed account of a series of eight experiments is given, but whether these are sufficient to determine the point or not, we cannot at present say; at all events, they should be carefully repeated by other observers. There are many we could name devoted to this department of physiology; and to them especially we beg to commend the *brochure* before us.

On a Remarkable Effect of Cross-Breeding. By Alexander Harvey, M.D. 1850. Pp. 39.

Although addressed especially to the "agricultural body," this pamphlet contains, nevertheless, matters interesting to the physician and ethnologist; indeed it would be well if people in general were more informed on the laws which regulate, and the circumstances which influence, the development of their offspring. The subject of the essay under notice has its origin in the observation made by Mr. M'Gillavray, of Huntly,—that if a bitch, ewe, or cow, of any pure breed, has been impregnated by a male of a different breed, the product ever after bears, to a greater or less extent, the characteristics of her first progeny. Dr. Harvey has, in a truly philosophic spirit, investigated the *rationale* of this phenomenon. He has fairly indicated what facts support the theory of *inoculation influence*,—has shown in what direction that theory lies open to fallacy,—and has given a plan for a series of well-arranged experiments for determining a question so important. We recommend a perusal of this pamphlet, and hesitate not to vouch for the reader ample reward for his trouble.

FOREIGN CORRESPONDENCE.

FRANCE.

DEATH OF M. LEURET.

The year 1850 has been fatal beyond all measure to medical science in France. Nearly all that remained to us illustrious in every department of the science has passed away. In chemistry, Gay Lussac; in surgery, Marjolin and Blandin; in comparative anatomy, de Blainville; in medicine, Fouquier, Royer-Collard, Capuron, Prus, and a host of others. To this long catalogue, I have to add the name of M. Leuret, physician to the Hospital of Bicêtre. M. Leuret was one of those persons, now so rare, who pursue their career without noise or ostentation; therefore, notwithstanding the extent and variety of his knowledge, the remarkable clearness of his judgment, and his personal value, it was long before M. Leuret enjoyed that degree of public estimation to which his peculiar talents so justly entitled him. He wanted ambition, and was consequently inactive. Even his great work on the Comparative Anatomy of the Nervous System still remains unfinished.

The peculiar doctrines of M. Leuret on the moral treatment of insanity are well known. They met with obstinate opposition in France, and were the principal cause of the little public success which their professor obtained. On the other hand, M. Leuret was one of the most effective opponents of phrenology, and his profound knowledge of the comparative anatomy of the brain enabled him to overthrow many a brilliant theory, which seemed inexpugnable when applied to man alone.

POISONING BY MISTAKE.

One of those unfortunate errors which occasionally compromise, not only the reputation of the practitioner, but the life of the patient, has recently been the chief subject of conversation in our medical circles here.

The head surgeon to one of our lunatic asylums administered ten scruples, instead of ten drops, of laudanum in lavement, to a patient. The patient died thirty-six hours afterwards, with doubtful symptoms. The error of prescription could not be denied, and the surgeon was therefore brought to trial.

Five of the most celebrated physicians in Paris declared, both as medical men and legal jurists, that it was not clear to them that death had arisen from poisoning with laudanum. On the other side, two professors at the *Veterinary* School of Alfort, unhesitatingly attributed the fatal effect to the narcotic poison. The surgeon was found guilty of involuntary homicide, and condemned to fifteen days' imprisonment. The jury, perhaps, came to a correct conclusion; but it seems strange that their opinion should have been formed on evidence derived from the experience of men who deal exclusively in animals.

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But opinions are formed here on very slender grounds, and jurymen, if they go astray, may cite the example of ministers. In a public discussion the other day, at the National Assembly, M. Waisse, the Home Minister, in order to excuse the Government for its neglect of the poor, affirmed that of 21,000 children born in Manchester, only 300 attain the age of five years. In other words, the mortality of children at Manchester, up to the age of five years, is 98½ per cent. Surely this must be a grave and gross error. Even if the fact were true, it affords little consolation for the analogous one, "that in a certain part of Lille, only four children out of one hundred attain the age of five years."

The concours for the Chair of Surgery at the Faculty of Medicine still continues, and many of the exercises have been conducted in a brilliant manner. M. Robert, of the Hôtel-Dieu, and Professor Buisson, of Montpellier, appear to divide the chances between them. Either would make an excellent professor; Robert as a practical surgeon, Buisson as an accomplished teacher.

GENERAL CORRESPONDENCE.

ILLEGAL PRACTITIONERS.

[To the Editor of the Medical Times.]

SIR,—Unwilling as I am to intrude upon your time that might be otherwise more usefully employed, yet, as necessity compels me, I hope it may excuse me. I am surgeon to a large country Union, and reside in this village, being the most central, and the largest but one in my district. In the latter, which is within two miles of me, resides a man who not long ago kept a public house, now dubbed a medical man, who possesses no qualification, not even one to entitle him to act as an assistant, as he has never attended any hospital. He at one time acts as a principal; another time, Proteus like, he is only an assistant to his father, who resides out of the district, and dates his qualification from that refuge of the destitute, "in practice prior to 1815." They rejoice in the same Christian name, so that the signature is alike, and may be taken for either, which presents a difficulty in the way of prosecuting under the Apothecaries' Act. Now for the burthen of my case. The overseer of the poor in the village in which he resides, sent him an order, a few weeks ago, to attend a pauper in labour, on the plea of being a case of emergency. I wish to know from you, if the Poor-law Commissioners allow such conduct to be pursued, especially as he is an unqualified man, and I reside within so short a distance; and a medical friend still nearer, who would attend for me? I went to the Board of Guardians to-day about the matter, as I considered it not only an insult to me, but to the Profession at large. They all considered it as unjust; but did not know how they could prevent an overseer employing the nearest medical man. I replied, *cum multis aliis*, "that I did not consider him as entitled to the name, and was certain that the Poor-law did not recognize him as such, and that, if he sent in his bill for his attendance, the Board could refuse paying him, on the ground that he was not legally qualified."

If medical men who take upon themselves the onerous duties of attending to the poor, are to be treated in the above manner, that an overseer can send for any mountebank or bonesetter to the prejudice of the surgeon who toils and fags for the pittance he receives for his services, his looking forward to the extras (accidents, &c.) to make up the deficiency in his salary, and which, in every advertisement for a Union surgeon are almost written in italics, turns out to be no more than "a mockery, a delusion, and a snare." What a Profession to belong to! How ought parents to consider before they embark their sons in the vortex of such an anomaly, in which it is hard to attain a competence or an independence.

I am, &c., P. DOWNEY,
Surgeon to the Barrow-upon-Soar Union.

Sileby, Loughborough.

[By sending an order to attend a case of midwifery to an unqualified man, the relieving officer violated the spirit, if not the letter, of the instructions of the Poor-law Commissioners. Midwifery is a special service, like amputations, trephining, and the treatment of dislocations; and, if it would be cruel and illegal to authorise the attendance of a common bone-setter in the latter cases, so equally in the former. Many boards of guardians consider, however, that they can exercise a discretionary power in reference to these special cases, and employ whom they please to attend them, to the prejudice of the claims of the regularly appointed medical officers. Hence fractures and dislocations are frequently sent to a neighbouring hospital. In this way, boards of guardians disregard the engagement—comprising, of course, all its conditions—with the medical officer. In the instance of midwifery, it is even yet common for boards of guardians to employ midwives, with the consent of the medical officer, and, if this practice be not illegal, then the injury caused by the act of the guardians in the particular case referred to is beyond redress. There is no statute law to prevent ignorant persons attending midwifery. We repeat it, nothing can be worse than the state of medical law.—ED. *Medical Times*.]

SANITARY STATE OF BERMONDSEY.

[To the Editor of the Medical Times.]

SIR,—Observing the interest taken by you in sanitary improvement, from the various articles on that subject in your Journal, permit me to submit, as an instance of the *rapidity* with which evils, carrying disease and death into numerous wretched families, are removed, that upwards of *three* years ago I described Bermondsey and Rotherhithe to be in such a filthy and unwholesome state, as to render them the favourite haunts of diseases of the most malignant character. In addition to that description, and after danger I had predicted was realised, I reported to the General Board of Health, in November, 1848, having carefully inspected Bermondsey, the incredible and deplorable condition of that locality.

In that report I stated, that I had nowhere seen any place so dirty, or more disgusting; and went on to say, that it lay below the level of the Thames at high water, and was intersected with large open ditches, some of them tidal, others stagnant, and choked with refuse. Its whole atmosphere was tainted, and emitted that unmistakeable smell peculiar to fever districts. As a spot containing all the evil influences in perfection, I described Jacob's Island as an epitome of the parts of Bermondsey inhabited by the working and poorer classes. I was shocked at the horrors I there witnessed—horrors which, unless seen, might be deemed exaggerated, or beyond belief. They are too true, however; for houses, hovels, huts, and sheds, the abodes of man and beast, everywhere presented themselves, in every form of dilapidation, ruin, and decay; swarming with human beings, degraded, debased, reckless, indecent, and dangerous. Living among filth and squalor, steeped in poverty, neglected, and despised, even death itself had lost its terrors to these poor creatures. Hence that apathy pervading the poor denizens, one result of which I saw exemplified in a donkey-den being turned into a human habitation, a coffin, containing the remains of a cholera patient, serving the purposes of a shelf or table.

In this island I saw, and the like may be seen at any time of the day, women dipping water, with pails attached by ropes to the backs of the houses, from a foul, fetid ditch, its banks coated with a compound of mud and filth, and strewn with offal and carrion of every kind; the water to be used for every purpose, culinary ones not excepted, although close to the place whence it was drawn, filth and refuse of various kinds were plentifully showered into it from the wooden conveniences of the wooden houses overhanging its current, or rather its slow or sluggish stream, their posts or supporters rotten, decayed, and in many instances broken; and so little regard was paid to decency that women could be seen entering and leaving these projecting conveniences by any passers-by.

Near where this stream terminates in the river, on the eastern side stands George's-street, at which place, when the ditch is full, it must be about twenty feet wide and fifteen feet deep. A few houses in that street were supplied with water, said to be very good, from wells about eight feet deep on the premises. Not far distant, in the garden of Mr. Martin, surgeon and registrar, is a well, from which I procured a sample, and left it at Gwydyr-house, Mr. Martin having most obligingly in my own presence caused it to be pumped direct from the well.

Another ditch emptied itself into the river at Dockhead, colouring the stream with its impurities. That ditch extended as far as New Bermondsey, a distance of about three quarters of a mile, soaked the walls of the adjoining houses, and passed in its course a mountain of dust and house refuse, intermixed with much decaying animal and vegetable matter. To consume the last-mentioned articles, pigs were kept, and likewise a cow; the cow I did not see; the pigs, or rather swine of considerable size, made their appearance at several places, where they had been burrowing in the heap.

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At Bermondsey, as might be expected, disease is seldom absent, and, when it becomes epidemic, soon assumes a malignant character, vastly increasing mortality, chiefly among infants or children. The intelligent medical gentleman whom I had the pleasure of meeting there related many instances of the sad consequences of such a state of things, from which I select the following:—Mr. Parker, surgeon, informed me that it frequently happened individuals who had been unfortunate elsewhere came to Bermondsey in the hope of bettering their condition, but that they soon found that for the first twelve months ill-health to themselves or their families was almost the invariable result; after which period, if they escaped with life, they became in some degree acclimated although it was but rarely indeed they ever again enjoyed anything like perfect health; and that generally about the end of autumn or beginning of spring a form of remittent fever was common, especially among children, in which the "strawberry tongue" and aphthous ulceration of the mouth and fauces, attended with great debility, proved extremely troublesome and oftimes fatal.

This is the "marsh fever" described in my evidence before the Sanitary Commission, as being so common in many parts of Essex.

Mr. Parker had lately attended two fatal cases of Asiatic cholera. They were both in filthy localities. I learned also from that gentleman, that good water might be procured by sinking wells of no great depth, or laid on by the Vauxhall Water Company at 4s. annually for each room. Dr. Paul, who had been in practice many years in Bermondsey, had the politeness to accompany me to numerous most disgusting places, and to show me several patients he was attending. He was well acquainted with the district, and able to give much valuable information, having seen a great deal of cholera when it first visited London. As a proof of the dangerous state of some of the houses, Dr. Paul mentioned, that on one occasion he attended a woman in labour in Jacob's island, and had not left her above an hour when the house broke down and partly sank into the ditch, the woman and the child having barely time to be rescued from their perilous situation. And in evidence of the overcrowded state of the houses, I was informed that not long before no fewer than twelve families inhabited the same dwelling in that unfortunate island, although typhus fever was at the time prevailing to a most alarming extent in the crowded apartments of that building. I was also informed, that during summer crowds of boys are to be seen bathing in these streams or putrid ditches, where they must come in contact with abominations highly injurious.

There was another nuisance, of a most dangerous kind, deserving of notice. A graveyard, belonging to the "Convent of Mercy," was so full, that, I was told by Mr. Martin, the bodies were above the level of the street, and the inhabitants of the neighbouring houses suffered much from the offensive smells emitted.

In conclusion, I acquainted the Board that I had seen, with Dr. Paul, a convincing proof that the habitat of typhus and cholera was the same; a girl, lying on a bed spread upon the floor, passing through a mild form of typhus, while her brother was lying in the room immediately below, in a state of collapse from cholera, of which disease he died a few hours afterwards.

To illustrate my description of Bermondsey, I forwarded a sketch and plan of Jacob's Island, taken by a gentleman residing in the neighbourhood.

On several occasions afterwards I revisited this district, and communicated the result of my observations. I regret, therefore, to find, from the report of Mr. Martin to the Registrar-General, that as yet these evils remain unabated in Jacob's Island (*vide Medical Times*, Nov. 30, 1850,) and are still continuing their work of destruction. It is surely high time the vested rights of dirt and disease were abolished.

I am, &c.,

ROBERT BOWIE.

5, Coborn-terrace, Bow-road.

DR. GREGORY ON "THE RELATION OF THE EXANTHEMATA."

[To the Editor of the Medical Times.]

SIR,—My attention has been drawn to a communication in the *Medical Times* of the 18th ult., written by Dr. George Gregory, on the Relationship which the Exanthemata bear to each other, in which he admits that the doctrine of the identity of small-pox and cow-pox, which I have attempted, however feebly, to support, has of late very generally been conceded, notwithstanding, as he somewhat *naïvely* complains, his frequent and earnest, but as it appears ineffectual, efforts to stem the tide of public opinion. A result so diametrically opposed to Dr. Gregory's persevering advocacy, is no doubt annoying, but perhaps he may find comfort in the assurance, that no amount of ingenuity is able to resist the progress of popular belief when founded on truth. "Labitur et labetur in omne volubilis ævum." If Dr. Gregory, under such circumstances, will row against the stream, knowledge will advance whilst he remains stationary, and is consequently left far behind, disconsolately and vainly awaiting the reflux of the tide. But it is especially made a matter of complaint against me, that, in the most recently published work on the subject, I have ventured to maintain, broadly and unreservedly, the identity of the two diseases in question, refusing to allow any weight to the antagonistic arguments of Dr. Gregory, contained in his published lectures on the eruptive fevers. Now, as to the latter point, Mr. Editor, any of your readers can ascertain, by reference to my pamphlet, whether I have spoken disparagingly of Dr. Gregory, or shown any disposition to underrate either the talents or authority of that distinguished physician; but, with reference to the identity of small-pox and cow-pox, I must take the liberty of repeating my humble conviction, that the popular professional belief is correct, and the opinion of Dr. Gregory, on this point, consequently erroneous. And candour compels me to add, without the slightest intention of giving offence, that to my apprehension, at least, there is nothing either in the matter or the manner (certainly rather peculiar) which he has adopted in putting the question anew, at all calculated to produce any change of opinion upon the subject. On the contrary, when we contrast Dr. Gregory's vague and bewildering assumptions of "*one malady* being capable of producing, by inoculation, in an animal of a different kind, *another malady* of an *allied* nature, but specifically distinct;" of a virus generically allied, but specifically distinct; of diseases not possessing identity of nature, but reciprocity of action,—I say, when we contrast these unproved assertions with the plain inference fairly deducible from Mr. Ceely's experiments, and capable of being maintained by the soundest reasoning, viz., that the effect of inoculation with a specific animal virus is to produce *the same, and not another disease*, we may fully admit, with Dr. Gregory, the difference existing "between theory and practice," and "between the reveries of science and common sense." It is not my intention, however, to examine here Dr. Gregory's mode of elucidating his theory; and I shall therefore confine myself to one other specimen of "common sense." "It requires," Dr. Gregory alleges, "no great *stretch of imagination* to conceive that the primary exanthematic miasm, so largely disseminated throughout the animal kingdom, is composed of two or three ingredients, which, variously combined, appear in the several forms of small-pox, cow-pox, chicken-pox, sheep-pox, and equine grease; while other elementary changes convert the miasm into the parent of measles, scarlatina, the pestis bovina, and the canine distemper." "Nay, it is further *very conceivable*, that cholera, the dreaded Asiatic pestilence, is an offshoot of the same miasmatic root, which, mollified by the lapse of ages, may at length display features which will give it rank among the exanthemata"!! This is new at all events. Cholera merely a form of small-pox or measles, no doubt "generically allied," but "specifically distinct," and not presenting "identity of nature," but "reciprocity of action!" Truly, the theory which foretold the discovery of the philosopher's-stone and the universal elixir was not so absurd after all.

Now, although I would by no means insinuate that Dr. Gregory's paper is all on a level with the above specimen, yet I should be perfectly content to leave the decision of the question at issue to my professional brethren, on a calm consideration of our respective arguments. Hence, however flattered I may feel that my humble efforts, in support of what I conceive to be the truth, have furnished me with so distinguished an opponent, I should gladly have declined the controversy into which Dr. Gregory seems bent on forcing me; but, after the specific appeal made to me, I am bound, in self-defence, to take up the gage which he has so eagerly thrown down. As, however, the opinions which appear to have given, quite unintentionally on my part, such umbrage to that gentleman, primarily appeared in the *London Journal of Medicine*, I shall select the same medium for communicating to the Profession such comments on Dr. Gregory's theory of "exanthematic relationship" as it appears to merit; and I hope to accomplish my purpose in time for the March number, if other pressing avocations will permit, or, at all events, for the April publication at latest. Meanwhile, I cannot refrain from offering a just tribute to the great ingenuity displayed by my learned antagonist, in determining at one stroke an abstruse and controverted doctrine in medical science (risum teneatis?) by the conclusive authority of an Act of Parliament! By this novel and clever device, he has not only given the *coup-de-grace* to the experiments and inferences of Ceely, but overturned at once the arguments of

Jenner, Thomson, Baron, as well as a whole host of less distinguished adversaries. But Dr. Gregory plainly shows, in several places, that, like Dogberry, he "is one that knows the law." Against the force of legal raillery there is no defence; and fortunately, therefore, for his opponents, wit may sometimes be so refined that its point is imperceptible. I am, &c.,

Strangford. ALEXANDER KNOX.

PSORIASIS.

[To the Editor of the Medical Times.]

SIR,—As you wish to have the opinion of some of your correspondents with regard to the treatment of psoriasis; and, in answer to the inquiry made by "A Country Practitioner," I shall feel happy, with your permission, to record a case which I have had recently under my care. My patient was a female, age 40 years; during the last three years she has been afflicted with psoriasis on the hands and feet. When she applied to me for relief, which was about eight months ago, I was induced to try the decoction of sarsaparilla, with alterative doses of bichloride of mercury, using externally, every night, unguentum hydrargyri nitratis, which treatment I continued to adopt for six weeks, but with no beneficial result. I then ordered her to take the 1-12th of a grain of the arseniate of iron three times a day, in form of pill, at the same time continuing the ung. hydrarg. nitrat. at night, and during the day, to allay the disagreeable itching, and soften the hard and fissured surfaces of the skin, I requested her to frequently use olive oil. With this treatment, and total abstinence from all high-seasoned and indigestible food, my patient has been relieved from her annoying and disagreeable malady for the last two months. Of course, I cannot pretend to say whether the disease may appear again or not, but if it should, I shall feel justified in adopting the same remedies for the relief of my patient. I am, &c.,

W. REYNOLDS HAYNE, M.D.

6, Devonshire-terrace, Camden-road.

[To Editor of the Medical Times.]

SIR,—In your number of the 8th instant you insert a letter from "A Country Practitioner," requesting information as to the means to be adopted for the removal of the stains and other disorders of structure caused by the long-continued existence of psoriasis.

Having enjoyed considerable opportunities of seeing every variety of that disease, I shall endeavour on the present occasion to give briefly the result of my own experience in the treatment of the very intractable deformity described byyour correspondent.

As a general rule, the first object of importance is to improve the action of the capillary vessels, in order that the perspiratory function may be restored to the diseased portions of the skin. To effect this, our treatment must be both local and constitutional; as a general rule, all unctuous applications are inadmissible, more especially those of a stimulating character, which, from their tendency to excite excessive action, usually reproduce the disease.

Attention is required to the clothing, which should at all times be capable of resistance to atmospheric changes or sudden exposure to cold draughts of air. I usually recommend my patients to wear merino jackets and drawers, which, from their closely fitting the figure, produce a moderate degree of warmth, and at the same time allow free exit to the cutaneous exhalations.

Our next duty is the regulation of the digestive functions, which, upon the cessation of a long-continued eruption, are more or less disordered; dyspepsia and leprous diseases frequently co-exist, or alternate with each other. I have found the decoct. sarzæ co., combined with pot. iodid., in five-grain doses twice a-day, very useful in these cases. The decoct. aloes co., or a combination of the sulphate and carbonate of magnesia, is the most useful aperient, the intimate sympathy between the digestive mucous membrane and the skin rendering all drastic purgatives inadmissible.

The diet will require strict regulation for several months after the ordinary treatment is suspended; soups, tea, coffee, and malt liquors must be very sparingly indulged in, and all green culinary vegetables abstained from, and daily walking exercise is essential.

I now come to the external applications most useful in the sequelæ of psoriasis.

Much irritation is produced by the soaps in common use. At the Bath Hospital we were accustomed to use a medicated soap, in which the petroleum barbadense formed the important ingredient. This soap has been patented, and is now prepared for medicinal purposes by Hendric of London and Tyler of Bath; it is balsamic in its effects, leaving after ablution an agreeable softness on the skin; it is useful in all forms of skin disease, and in the common chapped hand is the only soap that can be use by the sufferer without pain; in psoriasis palmarum, of which the chap is the ordinary forerunner, it is a remedial agent of singular efficacy. Anointing the limbs with glycerine or cod-liver oil, with moderate friction, is another means by which these scars may be dispersed. Where there is a disposition to inflammatory action in the subcutaneous capillaries, one or more leeches may be applied with advantage, for they readily adhere to the patches or scars. A common cataplasm, frequently renewed, will soften and disperse the corrugations. By means of the spongio piline, we can at all times, without inconvenience, apply moist heat, either simple, or medicated; for by its employment we avoid the decomposition naturally attendant on farinaceous substances, and are enabled, as it were, to keep any portion of the body in a perpetual bath.

I am persuaded that no mere local application will effect our object; our endeavours must be directed to the overcoming of the diseased disposition, to inordinate action of certain portions of the capillary system of the cuticular surface where the patient's strength admits of it. I do not hesitate to abstract a moderate quantity of blood by venesection, and follow it with a smart purgative and low diet for a few days.

Among the general remedies, the warm-bath occupies an important place; a great portion of my experience in the treatment of this very intractable affection has been obtained from my attendance on those who have resorted to the thermal springs of this city, either during the continuance, or subsequently to the eradication of the diseased secretion, in whom the scars have been prominent and unsightly. In this latter condition the Bath waters, by their general effect on the digestive organs and cuticular secretion, enable the patient to throw off the disposition to a recurrence of the eruption, and improve the general health.

The most useful form of domestic bath is the gelatinous alkaline made by mixing a solution of 4oz. of gelatine and ℥ss. sodæ sesquicarb. in the ordinary slipper bath; this may be employed at a moderate temperature three times a week. The patient should encourage perspiration, by drinking freely of barley-water, and, after leaving the bath, should be well wrapped in blankets for a period of time regulated by his strength.

It will sometimes be found that these alterations of cuticle will resist every plan of treatment. They may continue for years, gradually becoming paler and less perceptible. I have found an application of the acetum cantharidis, continued to slight vesication, exceedingly useful in their removal.

Fearful of intruding upon your valuable space, I have confined my observations to the treatment of the *reliquia* of this intractable disorder. In its treatment, we are too apt to mistake the prominent symptom for the disease; to treat the local instead of the constitutional affection. The late Dr. A. T. Thompson draws an admirable distinction between diseases *of* and diseases *affecting* the skin; as apoplexy is a disorder of the general circulating system, manifesting itself in the brain, so leprous diseases, in many instances, are symptoms of disordered function of the intestinal mucous membrane. I am, &c., JAMES TUNSTALL, M.D., Edin.,

Physician to the Eastern Dispensary of Bath, and late Resident Medical Officer of the Bath Hospital.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Dr. ADDISON, President, in the Chair.

ACCOUNT OF A CASE IN WHICH THE CÆSARIAN SECTION WAS PERFORMED.

WITH REMARKS ON THE PECULIAR SOURCES OF DANGER ATTENDANT ON THE OPERATION.

By CHARLES WEST, M.D.,

Physician-Accoucheur to St. Bartholomew's Hospital, and Medical Lecturer in the Medical College.

THE subject of this history was a young woman, aged 27, a patient of Mr. Wren, of Brownlow-street, whose health had always been indifferent, but whose person was not apparently deformed, and who reached the end of her first pregnancy without manifesting any symptoms especially calling attention to the state of her osseous system, with the exception of pains of a rheumatic character and

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difficulty in walking, which last became very great during the last two months of her pregnancy. When labour came on, which it did at the end of the full period of utero-gestation, the existence of extreme pelvic deformity was at once ascertained by Mr. Wren, in whose opinion, as well as in that of Dr. West, Dr. Murphy, and Dr. Ramsbotham, the performance of the Cæsarian operation was indicated. It was accordingly performed by Mr. Skey fourteen hours after the commencement of labour, and eight hours after the rupture of the membranes, uterine action having, however, been feeble from the first, and having almost ceased since the escape of the liquor amnii. The patient was by her own desire subjected to the influence of chloroform before the operation was begun; no difficulty was experienced in its performance; and a living female child was extracted. Very formidable hæmorrhage succeeded the removal of the placenta, and the subsequent contractions of the uterus were very tardy in their occurrence. The patient was left in a state of great exhaustion, from which she never completely rallied, and died in 108½ hours after the operation, apparently from the conjoint effects of the hæmorrhage during the operation, and of the shock to the nervous system. The treatment consisted in the administration of stimulants and nourishment, both by the mouth and in enemata, and the patient was kept in the same manner almost throughout under the influence of opium. The body, on examination after death, presented no evidences of serous inflammation, but the uterine wound was gaping widely, and even that of the abdominal walls was but partially closed. The pelvis presented, in a most marked degree, all the characteristics of that deformity which is produced by mollities ossium; the pubic bones being projected into a beak 1·2 inches in length, the width of the pubic arch being reduced to ·6 of an inch, and the distance between the tuberosities of the ischia to 1.2 inch. The writer having noticed the high maternal mortality resulting from the Cæsarian section, and which he estimates at much more than the number of 63 per cent., at which the statistics of all cases recorded since 1750 place it, since the results of cases occurring in hospitals abroad yield a maternal mortality of 79 per cent., and of cases in this country of 85·4 or 87·5 per cent., according to two different estimates, proceeded next to point out the apparently inevitable causes of this high mortality. These causes he referred to four heads, and illustrated their respective influence by reference to a table of 134 fatal cases in which the body was examined after death. The four heads are as follow: — 1st. The danger arising from hæmorrhage, which proceeds from a source different from that whence bleeding takes place in any other operation, and which is not capable of being arrested by the same means as suppress it under ordinary circumstances. 2nd. That dependent on the shock inflicted on the nervous system, as well by the violent interference with the most important process that ever goes on in the organism within the same limited time, as by the injury to a part so important and so richly supplied with nerves as the uterus of a parturient woman. 3. The hazard inseparable from extensive injury to the peritoneum, when unblunted in its sympathies and unaltered in its texture, as in cases of ovarian or other tumours, for the removal of which a similar exposure of the abdominal cavity is sometimes practised. 4. That which results from the infliction of a wound on the uterus at a time when, in the ordinary course of things, the processes which nature is prepared to carry on in it consist in the disintegration and removal of its tissue,—processes the very opposite to those essential to the repair of injury. From a consideration of all of these sources of danger, to the last of which attention has hitherto scarcely been directed, the author arrived at the conclusion, that they being so serious, and so beyond the power of art to prevent, the rule which forbids the performance of the Cæsarian section, wherever there is a reasonable probability of accomplishing delivery by the natural passages, is founded on solid grounds, and ought to be adhered to.

A CASE OF CÆSARIAN SECTION.

By HENRY OLDHAM, M.D.,

Obstetric Physician and Lecturer on Midwifery, &c., at Guy's Hospital.

The subject of this case was a ricketty, deformed girl, aged 23, unmarried, pregnant with her first child, and seven months gone in gestation, when first seen by Dr. Oldham. On examination, the pelvis was found to be reduced to two inches in its conjugate diameter, and the uterus was much anteverted.* The membranes were punctured for the induction of premature labour, in a few days after she was seen, September 23rd, 1850. On the following morning, the left arm was found in the vagina, but labour did not come on until nine a.m. on the 26th. In twelve hours, the os uteri was dilated, and then some attempts to deliver her were made. The child could not be turned; but, by drawing down the protruding arm, which, from commencing decomposition, soon gave way, and pressing the abdomen from below, the head was brought over the brim, and was at once perforated. For four hours, the crotchet was employed, both inside and outside the head, the bones of which were completely torn up, but without drawing it through the brim. At this time, a new impediment was found to have arisen, from the descent of the right hand and a foot, by the side of the collapsed head, into the pelvic brim; and, on watching the effect of labour pains, all these parts were felt to be squeezed together in the narrow inlet of the pelvis, each preventing the other's descent. It was attempted to bring down either the foot or hand, but only the slippery tips of each could be touched, and they could not be moved. The patient had now been seventeen hours in labour, and it became a question for serious consideration and consultation, whether she would be able to sustain the necessary efforts for her delivery, and whether it would not be for her benefit to perform the Cæsarian section before exhaustion came on, which at length was determined on. The operation was performed by Mr. Poland, without difficulty, and with little hæmorrhage, the patient being under the influence of chloroform. The incision, five inches long, was slightly curved, and a full-sized seven months' fœtus was removed, and afterwards the placenta and membranes. For two days the patient did well, but then exhaustion came on, and she died. While she lived, she was kept under the influence of opium, and was sustained by simple cold drinks. On *post-mortem* examination, there were some slight traces of peritonitis near the uterus. The external opening was closed, and its edges adherent, but the uterine incision was gaping. The larger omentum was indurated and inflamed, and so drawn across the uterus, above the incision, as to prevent any discharge from the latter organ escaping into the peritoneal cavity. Two practical questions were suggested by this case. 1st. What was the best plan to attempt to follow out in the delivery at first. 2nd. Were the complications such as to justify the Cæsarian section. With respect to the first, two plans of treatment might be adopted: 1. To induce labour, and deliver by craniotomy; 2. To allow her to go to term, and then perform the Cæsarean section. In determining in favour of the former, the author was guided by the great probability—with a conjugate diameter of two inches—of being able to deliver with the crotchet, and he considered that his inability to do so arose from the complex presentation. With reference to the second, he was induced to have recourse to the Cæsarian section, from a conviction that the patient would probably sink under the prolonged efforts at delivery; and a case was related which occurred in the Lying-in Charity at Guy's, under Dr. Ashwell, where a woman with a far less contracted pelvis died undelivered, after the powerful and sustained efforts to relieve her. It was remarked that the girl had but a feeble constitution, which would ill support so hard a trial of its powers, and the condition of the vagina was particularly noticed as retaining the marks of early age, being structurally weak and easily lacerable, and most unfavourable for a long craniotomy operation. Under these circumstances the Cæsarian section offered a speedy and sure, instead of a prolonged and doubtful, delivery. It was not yet forbidden from exhaustion, or any signs of inflammation; on the score of suffering it contrasted most favourably with the persistence in the use of the crotchet; and, upon the whole, it was judged to offer a better chance of ultimate success. The curve in the incision was suggested to catch the outline of the muscular fibres on the inner surface of the uterus, and so favour the closure of the wound. The scanty hæmorrhage during the operation was in a measure accounted for by the uterus being at the seventh instead of the ninth month, by the placenta being attached to the posterior wall, and the uterus being opened low down towards the cervix, where the veins were less developed. Chloroform was said to be a gain in every way, and the after-treatment by opium appeared satisfactory.

Dr. R. Lee gave an historical notice of the Cæsarian operation, and of the induction of premature labour. He stated, that the former operation had been performed 400 times in Europe, 48 of which were done in the British Islands, besides several fatal unrecorded cases. The opinions of Guilleneau, Ambrose Paré, Mauriceau, condemnatory of the operation, were cited. Mauriceau asserted that there were few, if any, cases in which the accoucheur could not extract the child, living or dead, whole or in pieces, without the necessity for the Cæsarian section, and in this opinion Dr. Lee concurred. In England, in 1756, the operation for inducing premature labour was first adopted, and was successfully carried into effect, by Dr. Macaulay, but for several years afterwards was rarely practised, while the Cæsarian section was performed, and generally ended fatally. Dr. Denman wrote strongly in favour of inducing premature labour; he stated that it was

* The skeleton pelvis was exhibited.

a perfectly safe operation for the person on whom it was performed. It has been repeatedly practised with success during the last 50 years. Dr. Merriman has practised it 30 times; Dr. H. Davies on 50 occasions, and he himself (Dr. Lee) on as many occasions. In Dr. H. Davies' cases, 29 children were born alive, and all the mothers recovered. In one case, Dr. Lee stated he had performed it 12 times, the woman being now alive. It is applicable in all cases of distortion; in the slighter cases, at the seventh month, in those more severe, about the middle of pregnancy, or at the sixth month. If it were generally adopted, there would be no necessity for the Cæsarian section. He (Dr. Lee) was the first to induce premature labour in first pregnancies, and he had done so in several cases where a high degree of distortion existed. He then read a table of 23 cases of Cæsarian operation performed in these kingdoms, in all of which, save two, which he considered as doubtful cases, the mothers died. Dr. Lee then commented on Mr. Wren's case. He contended that the characteristic symptoms of mollities of the pelvic bones existed early, and that premature labour should have been induced, in which case the unfortunate woman might now have been alive. A case in which the Cæsarian section was performed at St. Bartholomew's in January, 1847, was next the subject of comment. Here, he said, the existence of great distortion of the pelvis was detected at the sixth month, and yet premature labour was not induced. The patient was admitted into hospital in November, the seventh month of pregnancy, and operated on in the following January, dying 36 hours after. He (Dr. Lee) thought the case was most favourable for inducing premature labour, to which, however, no allusion was made in the report of the case published in the medical journals. He concluded by speaking of a case at Cupar, in Fife, to which Dr. Simpson was summoned to perform the Cæsarian section, but the woman was delivered before his arrival. He denounced the Cæsarian operation in strong and decided language.

Dr. West observed, that in his case the induction of premature labour could not be practised on account of the great distortion. He did not see the patient until she was in labour. Dr. Lee's opinions on premature labour were those generally taught in the schools. He feared that the causes of mortality after the Cæsarian operation could not be obviated.

Dr. Murphy, at some length, referred to the history of the Cæsarian section, as given by Dr. Lee, and to his argument in favour of the preference to be given to the induction of premature labour. He also alluded to the remarks on Mr. Wren's and Dr. Rigby's cases, and to the case at Cupar, to which Dr. Simpson was summoned to perform the operation, and contended, that in his manner of treating these cases Dr. Lee had given utterance to personalities which were decidedly bad in principle, and may convert the useful discussions of the Society into the angry quarrellings of a debating club.

Dr. Addison was not of opinion that Dr. Lee had made any personal remarks at the last meeting, but was referring to opinions, as he was entitled to do.

Dr. Murphy contended, that the case at Cupar had been wrongly stated. There was very considerable deformity of the pelvis; the child had been long dead, and was in a state of putrefaction. It measured 18½ inches, and weighed only 3 lbs. 3 oz. The brain was semi-fluid, and all the bones of the head were separated; so that there was no difficulty experienced in the birth of a fœtus in such a state. With respect to Mr. Wren's case, he (Dr. Murphy) thought that there was not sufficient evidence of pelvic disease to warrant the induction of premature labour, and reminded the Society that the rule was, not to perform that operation in first pregnancies, as the degree of distortion could not be ascertained beforehand, nor that delivery could not take place with the forceps. This rule Dr. Lee allowed, for he claimed to be the first to break through it. Dr. Murphy then commented on the 127 crotchet operations performed by Dr. Lee, as mentioned in his "Clinical Midwifery," and on the rarity of induction of premature labour, contending that in those cases premature labour was as appropriate as in the cases in which the Cæsarian section had been performed. Cases of pregnancy with deformed pelvis from mollities ossium from the practice of Mauriceau, Hamilton, Barlow, Dunlop, and Ridgway, the mothers dying undelivered, with rupture of uterus or vagina, were next alluded to, and also a case of Dr. Meigs, in which the attempts at craniotomy were very protracted, and terminated only on the third morning. The patient in this case was afterwards twice delivered of living children by the Cæsarian section. A case of malacosteon of Dr. Lee's, was next adverted to; in this the crotchet was twice used; on two occasions premature labour was induced, but in the fifth, after repeated failures to produce abortion, the child was brought away at the eighth month, but the woman died of ruptured uterus. In cases such as these, he (Dr. Murphy) thought the child's life should also be considered, and a chance given of saving it by the Cæsarian section. He urged the Society to examine into the causes of death after this operation.

Mr. Wren was of opinion that, according to the reports in the medical journals, the remarks made by Dr. Lee were likely to be very injurious to him. Dr. Lee had said, that if the case had been earlier under Dr. West's care the result would have been different. This he thought unwarrantable and unjust. Neither he, nor any one in the Profession, without certain symptoms to warrant it, could urge the propriety of an examination in the early months of pregnancy, nor would it be granted; and he contended that his patient exhibited only the ordinary anomalous symptoms so frequently met with in the early months of utero-gestation. She was in delicate health, troubled with heartburn, pain in the head and throat, sickness and loss of appetite—pulse 130. She was much alarmed at the thought of child-bearing, and urgently requested to have chloroform. As her pregnancy advanced, she suffered much from cramp. Dr. West was in error in saying she could not walk, and must have misunderstood her husband. She could go down three flights of stairs and across a yard, twenty feet long, to the water-closet, and back to her room. This she did daily, without assistance. She never would allow him to see her in bed, nor to examine the heart, which, she said, Dr. Roe and other medical men had always told her was healthy. She had not suffered from severe pain in the chest, extending to the back and loins, as Dr. Lee had stated, nor, indeed, did she present any sign of pelvic disease so as to excite suspicion.

Dr. Ashwell expressed his belief that Dr. Lee had spoken in the warmth of discussion, and had no intention to give offence. He then referred to the cases before the Society, and said he felt no surprise that the Cæsarian section had been performed in several instances in preference to craniotomy, as the former was a simple operation, ready of performance, and the latter was attended with great difficulties. The extent of contraction of the pelvis and of the swelling of the soft parts could not be calculated on. If, in a case of pregnancy, there was reason to anticipate that pelvic deformity existed, it should be ascertained, and premature labour induced at the proper time. If its existence were not discovered until the full term of pregnancy had elapsed, recourse should be had to craniotomy and dismembering.

Dr. Tyler Smith said that Dr. Murphy, when speaking of Dr. Lee's craniotomy cases, should have remembered that Dr. Lee was called in at the last moment, when it was too late to have recourse to the induction of premature labour. He regretted that in Dr. Oldham's case, the child was not destroyed as soon as possible, and that after that had been done, time had not allowed for its putrefaction. He felt, too, that in Dr. West's paper, there should have been an expression of regret, that the non-discovery of the deformity had prevented the induction of premature labour. He did not agree with Dr. West, when he said that the views advocated by Dr. Lee were taught in the medical schools. Dr. Lee had spoken of inducing abortion, as well as of premature labour, and the latter only was advised by obstetric professors. Dr. West had not made any allusion to it in his publications, nor had Dr. Rigby in his system of midwifery, although he had devoted a chapter to the consideration of the induction of premature labour. On one patient Dr. Lee had on twelve occasions caused premature delivery, the mother and children still surviving. In others the ovum had been destroyed more than once, to save the mother's life. This practice was not considered moral by some persons, and the dogma had been put forth, that it might be practised once, but that afterwards the mother should be left to take her chance of the Cæsarian section. It was monstrous and absurd to put the life of an ovum of a few months' duration in competition with that of the mother.

Mr. Skey observed that his name had been mixed up with

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two of these cases. He would say that in one Dr. West was the party responsible, and that Dr. West, Dr. Ramsbotham, and Dr. Murphy agreed as to the propriety of and necessity for the operation. In the other case he took the responsibility of the case, but he had in that also the opinions of Dr. Righy, Dr. P. Smith, Dr. Fergusson, Dr. Locock, and others supporting his views; they were unanimous in favour of the Cæsarian operation. He himself was desirous to operate before the full term of pregnancy had expired, but was overruled by the obstetric physicians, who deemed it best to wait. As he knew nothing of midwifery, he yielded to this opinion. The pelvis(a) in that case had a diameter of 1¼th of an inch, and he (Mr. Skey) did not think it possible that delivery could take place through it.

Dr. R. Lee, after examining the pelvis, said that he could not admit that the pelvis was so distorted as to prevent craniotomy. Premature labour might have been induced on the patient's admission into the hospital, and then the perforation and the crotchet would have accomplished the rest. It might have been practised when the pregnancy was first discovered, some months before the operation. There was a pelvis in the museum at St. George's, which was much more distorted, nevertheless the woman had been twice delivered at the full time, and thrice by premature labour.(b) Dr. Lee then detailed the case, which has been published in the "Clinical Midwifery." He then quoted the opinions of Dr. Collins and Dr. J. Clarke, neither of whom had been obliged to practise Cæsarian section; and he (Dr. Lee) asserted that if, in greatly distorted pelvis, abortion or premature labour were induced, that operation would never be needed. He then commented on Dr. Murphy's remarks on his cases of craniotomy, and said that in many of these there was no distortion, and therefore premature labour was not called for. In four cases the fœtus was hydrocephalic, in others the uterus was ruptured, or there were convulsions, violent hæmorrhage, or some other dangerous complication. In many of these cases labour had been going on for many hours before he (Dr. Lee) was sent for. When pregnancy was complicated with distortion of the pelvis, he always advised premature labour.

Dr. West referred to the cases of Mary Donnelly, and that in which Mr. Barlow operated, which were rejected by Dr. Lee, and considered them to be genuine successful cases of the Cæsarian section. There had been four more cases in these kingdoms since 1821, which ended successfully. It was not, therefore, of necessity so fatal as Dr. Lee supposed. He did not think craniotomy ought to have been attempted in his case, as, if it had failed, the Cæsarian section would have been attended with more danger. He then commented on the report of Dr. Lee's speech in a medical journal, and said that the expressions used against himself had been added to, and made stronger than those used at the meeting. He mentioned several of the remarks complained of, and also stated that an observation was attributed to himself which he did not use.

Dr. Lee asserted that he had used the terms complained of, but disclaimed employing them in an offensive sense.

Dr. Oldham briefly replied to the remarks made by Dr. Ashwell and Dr. Tyler Smith.

[We have given but a short report of what all the world of the Royal Medical and Chirurgical Society know to have been a very long, a very wordy, and a very personal debate. To do so is a duty we owe to numerous correspondents, whose communications fill so many editorial receptacles; for the discussion elicited neither new fact nor new idea.—Ed. *Med. Times.*]

MEDICAL SOCIETY OF LONDON.

Dr. J. R. Bennett, President, in the Chair.

THE CAUSES OF GONORRHŒA.

Mr. Chippendale read a paper on gonorrhœa, in which he sought to prove that that disease does not depend on specific infection, but may arise from the usual local causes of inflammation. He cited, in proof thereof, cases of soldiers labouring under the disease, while the women with whom they had had connexion were uninfected; and also two cases of gonorrhœa in boys, one from onanism, and the other from passing a pin into the urethra. The inflammation of gonorrhœa was, he thought, of a rheumatic character, and the occasional orchitis and ophthalmia, instances of genuine metastasis. Cubebs and copaiba, as curative agents, act, he said, through the blood.

In the discussion that followed, Mr. Acton controverted the opinions laid down by the author; and Dr. Winslow mentioned another case of gonorrhœa induced by onanism.

(a) The pelvis was exhibited.
(b) This also was shown to the Society.

NEW MUSCLES OF THE URETHRA.

Mr. Hancock read the following paper:—A great deal has been said and written upon the subject of spasmodic stricture and strictures in general, but I am not aware of any one having hitherto satisfactorily accounted for the several phenomena displayed in the various forms of impediments to the passage of urine which are usually described as spasmodic stricture. Some have ascribed them to inflammation, others to engorgement of the net-work of vessels surrounding the prostate, others, and the larger number, to morbid and irregular contraction of the muscles surrounding the membranous portion of the urethra, viz., Wilson's, Guthrie's, and Santorini's muscles, together with that usually denominated the "accelerator urinæ muscle." I have always considered these explanations unsatisfactory, and totally inadequate to account for the difficulties I have encountered in the treatment of urethral diseases. I have been unable to understand how voluntary muscles should continue in forced and excessive action so long as spasmodic retention of urine has been known to exist. I have been unable to account for the muscles just named causing spasmodic closure at parts of the urethra which they do not invest. I could not account for the almost complete retention of urine in cases where no impediment presented to the passage of instruments of large size; neither, by the reasons usually assigned, could I account for the sudden contractions of the urethra so frequently met with, and which could only be ascribed to the more general presence of muscular stricture than has hitherto been considered to obtain in these parts. Assisted by my friend Mr. Hogg, to whom I am greatly indebted, I have lately paid great attention to this subject; and I beg to submit to the Society the result of our investigations. Sir E. Home and various other surgeons have described the urethra as muscular; but in this they were in error. The urethra itself consists of mucous membrane, lined by its epithelial scales, but it is closely invested by muscular fibres of organic structure similar to, and in fact continuous with, the muscular coat of the bladder. The muscular coat of the bladder appears to me to consist of two layers of involuntary muscular fibres, an internal and an external; the external, partly covered by peritoneum, passes forwards and extends over the outside of the prostate gland; the internal, on the contrary, separated from the mucous lining of the bladder by cellular tissue, accompanies the mucous lining when it becomes urethra, through the prostate gland, forming an involuntary muscular covering to the urethra in its passage through the gland. The membranous portion of the urethra is next closely invested by a continuation of these muscular fibres, which cannot be mistaken for any portion of Wilson's, Guthrie's, or Santorini's muscles, as the latter are voluntary, and present the usual striated appearance when viewed by the microscope, whilst the former are strictly involuntary and nucleated. Conducted forwards upon the membranous portion, they reach the bulb, and here they divide into two portions, a superior and an inferior; the superior continues onward to the orifice of the urethra, lying between the urethra and corpus spongiosum; the inferior passes on the outer surface of the corpus spongiosum, separating it from its fibrous investment, to which the fibres adhere pretty closely; these latter are also continued forward to the orifice of the urethra, and in their course they invest the spongy portion of the bulb; the urethra and the glans penis entering very largely into the formation of that peculiar structure found at the orifice of the urethra, and which appears to consist almost entirely of involuntary muscle and elastic cellular tissue, constituting an additional sphincter muscle to those already described as existing in various parts of the body. It will thus be seen, that the corpus spongiosum urethræ lies between two layers of involuntary muscle, the one separating it from the urethra, the other from its fibrous covering, an arrangement, doubtless, exerting great influence upon the expulsion of the blood from the spongy tissue, when erection of the organ is no longer required, as well as upon the acceleration of the passage of the urine along the urethra; and I am doubtful whether the hitherto named accelerator urinæ muscle may not with more propriety be considered a depressor penis, or a direct opponent to

the erectores penis. I have thought it right to make this short communication to the Society, as the now proved existence of a muscular and continuous muscular coat to the very orifice of the urethra may tend, in a great measure, to explain the anomalies met with in the various cases of stricture, and may also be the means of introducing an improved means of treatment. I am still continuing the investigation of this subject; and, should the Society desire it, I shall be happy to bring it forward in a more detailed form at some future period.

FIBROUS TUMOUR OF THE UTERUS.

Dr. Robert Barnes exhibited the uterus of an aged woman taken to the Hunterian dissecting room. The uterus presented a fibrous tumour, the size of a marble, attached to the orifice of each Fallopian tube. One of the tumours had been cut away when the uterus was rescued by Mr. Chance. Dr. Barnes read a report from Dr. Hassall relative to the minute structure of the remaining tumour. Dr. Hassall stated, that he could detect no difference between its structure and that of the walls of the uterus; he therefore concluded it to be fibro-muscular. Dr. Hassall remarked, that tumours of epithelium, bone, cartilage, &c., were met with, and he could see no reason why muscular tumours might not also be observed.

Dr. Murphy inquired if the Fallopian tubes were obliterated by the pressure of the tumours?

Dr. Barnes stated, that the openings of the Fallopian tubes were completely closed by the origin and adhesion of the tumours, so that it was impossible to pass any instrument into the tubes. The presence of these tumours offers a singular instance of a mechanical cause of sterility.

DISEASE OF THE SEMILUNAR VALVES OF THE AORTA.

Mr. Leonard produced a specimen of congenital malformation of the valves of the aorta. The subject was a fine muscular young man, aged 28 years. He had no previous illness, and had never applied for medical aid. He went to bed apparently in good health, and died suddenly. The heart was greatly enlarged and very muscular; there were but *two* valves to the aorta, that next the right auricle being the larger, as if two had become one; they were much thickened and altered in structure, and totally unfit for service. The aorta above the valves was dilated to about twice its natural diameter, gradually diminishing till, at the innominata, it assumed its usual size.

Mr. Canton thought the man had probably died of apoplexy. Had the head been examined?

Mr. Leonard replied in the negative.

Dr. T. Thompson remarked, that Meckel and others had shown that, when there was an anatomical deficiency of valves, disease, when it occurred, generally showed a preference for them, as in the case before the Society.

Mr. Canton had met with several instances of deficiency of aortic valves, but they were not diseased like those exhibited by Mr. Leonard. He wished to ask Mr. Marson the condition of the valves in a pathological specimen, exhibited by him some time back, in which the semilunar valves were deficient in number.

Mr. Marson replied, that each valve exhibited cartilaginous hardness.

A Fellow mentioned, that, in Mr. Leonard's specimen, the pulmonary artery was contracted in diameter. The heart was much enlarged, and weighed, he should say, about 20 oz.

THE CAUSES OF PHTHISIS.

Dr. Theophilus Thompson read a paper entitled "Hints on some relations of Morals and Medicine, with special reference to Pulmonary Consumption." The author commenced with some remarks on the principal causes of consumption. 1st. Hereditary influence. This, he observed, could be traced in a considerable proportion of cases,—full a fourth of the patients whom he had questioned having lost a parent from the disease. It was worthy of notice, that this influence is more obvious in women than in men, and seems peculiarly to extend itself in the sex with which, in any given family, it first originated. 2ndly. Contaminated air. This influence is remarkably exhibited in tailors, journeymen bakers, and printers. Tailors have been found to constitute 7·2 of the patients at the Hospital for Consumption. They are, however, very liable to other diseases, constituting 5·8 per cent. at a general hospital. Thirteen per cent. is a high morbility for a class probably composing only a fortieth part of the male population of the metropolis. We cannot wonder, that, of journeymen bakers, probably a fourth have consumptive symptoms, when we reflect that they often work for twenty hours at a time, having gas instead of sunshine, and gusts of flour dust instead of fresh air. The printers in this metropolis are probably a third as numerous as tailors; but at the Hospital for Consumption they are more than half the tailors per centage. Dr. Thompson corroborated an interesting fact deduced from the meritorious investigations of Dr. Guy, namely, that pressmen are less frequently consumptive than compositors, probably owing to the tendency of exercise in some degree to counteract the bad effect of confined air. 3rd. Dissipation. The author had continually witnessed the tendency of syphilis and courses of mercury to induce phthisis. The peculiar liability of soldiers to consumption (whilst sailors are comparatively exempt,) he was inclined to think, with Dr. Duncan (in a valuable communication, in the *Dublin Medical Journal*, Vols. 8 and 9,) was in a great degree attributable to the "listlessness of their lives, and the dull monotony of drills and parades." This observation led the author to the special object of his paper, namely—4. The influence of mental depression. He argued, that the breathing was materially affected by mental emotions, and that anything which retarded the breathing tended to induce pulmonary congestion, and thus to promote tubercular deposition, in subjects predisposed by impaired nutrition, however produced. Mental causes were the only satisfactory explanation of the fact, that the inmates of prisons in this country, and in America, under every variety of climate and regimen, were more prone to consumption than the general population; the disease, as shown by Dr. Baly, manifesting itself in a high degree during the third year of confinement. The marked diminution of liability of married women, above the age of 25, as compared with men under similar circumstances, the author attributed mainly to the fact, that man is harassed with struggles for the support of his family; but that woman, with more faith and patience, does not so anxiously regard the morrow. Viewed in connexion with this fact, Dr. Thompson called particular attention to the remarkable circumstance, that in London and the provincial cities, with the exception of Leeds, the mortality of females from consumption is much less than that of males, but that in the country population the reverse is observable; and argued, that the differences of the condition of the sexes in these two divisions must be more moral than physical. He suggested, that the proportion of children born out of wedlock would supply some aid in estimating the moral disquietude of the female population; and, in arranging the per centage of deaths from phthisis, derived from the returns of the Registrar-General, for some of the principal cities, the correspondence of female mortality, in reference to the mortality of men, with the per centage of illegitimate children, as obtained from the same documents, is remarkable.

Per Centage of Deaths from Phthisis to every 100,000 *of Population.*

	Men.	Women.	Proportion of illegitimate children to children born.
London	456	377	3·2
Liverpool and West Derby	595	571	3·6
Manchester and Salford	549	548	5·8
Leeds	440	477	6·9
England and Wales	378	408	7·0
Paris	208	408	28·9

Amongst the practical deductions of the Essay were—1st. That certain simple measures easily available, chiefly in the way of ventilation, as applied to our workshops, might probably reduce the mortality of our artisans in this metropolis by at least a thousand a year. 2ndly. That muscular exercise in the open air is of great importance, especially for men when threatened with consumption; but that women require more shelter and bear more confinement. 3rdly. That cheerful impressions have a remedial influence, and that, under circumstances of intense study or anxious care, it is very important, from time to time, systematically to practise breathing. 4thly. That education may accomplish much for the promotion of health by teaching a correct estimate of power, restraining ambition, and training to equanimity of mind and to exhilarating habits of usefulness.

In the course of the discussion, Dr. J. B. Thompson mentioned the use of bad vaccine lymph as a cause of tubercular disease in the colonies and in the East. Atrophy of muscles, and even the introduction of the venereal virus into the system, were, he believed, thus caused. At the suggestion of Dr. Lankester, he promised to furnish the Society at a future meeting with the statistics of these facts, and also with the results of the experience of other medical men on these points.

Dr. Lankester thought it important this assertion should be

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fully investigated, as such a statement would strengthen those who are still prejudiced against vaccination. He thought that phthisis was not so often due to hereditary causes as it is believed to be—not in four-fifths of the cases. The want of pure fresh air was a great cause of tubercular disease, as shown in monkeys, &c., who are so affected when deprived of fresh air, &c. He thought also, that, while the tables as to the relative frequency of phthisis in women and men were interesting, they were not sufficiently numerous to decide the question. More evidence was wanting.

Mr. Dendy considered that phthisis was never induced *de novo*, but depended on a latent germ, which is brought into action by a depressing cause.

Dr. Snow would not admit that there was any connexion between phthisis and the bearing of illegitimate children; for the latter were very numerous in the country, where consumption was comparatively rare. The frequency of the disease among women in towns depended on their bad circumstances, close confinement to the house, and sedentary occupations. Voluntary respiration was highly commended by Mr. Barlow, as very serviceable in incipient phthisis, poisoning by opium, after an epileptic fit, atelectasis, &c. The inspirations should be deep, so as to bring the whole lungs into play.

Mr. Fisher believed that phthisis was more fatal to shoemakers than to tailors, ten of the former dying to eight of the latter.

In this opinion he was supported by Dr. J. R. Bennett, who afterwards stated, that country persons coming to London were frequently affected with phthisis during the first year or year and a half of their residence here, from the depressing influence of certain moral causes. The spontaneous origin of the disease was a question not easily settled; and much doubt had lately been thrown on the statement, that tubercular disease is engendered in animals by occlusion from light, fresh air, &c. That phthisis was hereditary, he did not doubt; but some persons, whose relatives had died from phthisis, still might escape it and live to old age.

Dr. T. Thompson briefly replied.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. Latham in the Chair.

Mr. Wm. Adams exhibited a specimen of

NECROSIS OF THE WHOLE SHAFT OF THE TIBIA,

together with the superior epiphysis, of a child aged 11½, produced by exposure to cold and wet. The shaft of the tibia, from the superior to the inferior epiphysis was completely encased in a layer of new cancellous bone of variable thickness, but gradually diminishing from above downwards; near the superior epiphysis it measured half an inch in thickness, and near the inferior epiphysis about an eighth of an inch; several apertures existed at the upper part, and led directly to the detached portions of the old shaft. On section, the outline of the old shaft was distinctly traceable below the detached portions to the inferior epiphysis, and was of an opaque ivory-white colour; it had lost the dense appearance of the compact tissue, and was light and porous. Its laminated texture was very distinctly obvious without any increase in bulk; this, therefore, did not depend on expansion but on interstitial atrophy or removal of tissue, the denser portion of each lamina only remaining. By this means all the lower portion of the shaft seemed to be undergoing gradual removal, instead of being detached *en masse* as in the upper portion. The superior epiphysis was very imperfectly ossified, but several portions of the newly-formed bone had suffered necrosis, and the sequestra were loose in circumscribed cavities. The epiphysis was displaced, or rather tilted backwards and downwards, partially sunk as it were into the posterior part of the head of the tibia. Chronic inflammation of the synovial membrane existed in the knee-joint, and a layer of vascular adventitious membrane extended partially over the cartilage on the condyles of the femur, the cartilage being superficially eroded beneath the closely applied vascular membrane.

This specimen was interesting in a practical point of view, chiefly from the fact of the superior epiphysis being involved in the necrosis, which very rarely suffers, and therefore amputation, where necessary, may generally be performed below the knee-joint. The implication of the joint in these cases is not attended with active symptoms from the chronic character of the disease and the enfeebled constitutional conditions in which it occurs. In the present case, the epiphysis was considered to be involved, and the leg accordingly amputated above the knee. The child made a favourable recovery. Also a specimen of

PERIOSTITIS OF THE TIBIA,

of a child aged eight, produced by injury, and accompanied with partial necrosis from sub-periosteal abscess, and the formation of a thin layer of periosteal bone in an early stage of development. An oval portion of the outer part of the head of the tibia, 2¼ inches in length, was necrosed, and in an early stage of separation; a sub-periosteal abscess following the injury that had taken place at this part.

Around and below this, the shaft of the tibia was encased for seven inches of its length, with a layer of imperfectly formed new bone, having the appearance of a membranous layer of firm, tough, gelatinous-looking substance, of light amber colour, and not unlike softened cartilage; partially impregnated with earthy salts, it was loosely applied to the surface of the old shaft, and inseparably connected, except where ossification was most advanced, with the under surface of the periosteum, so as to convey the idea of the periosteum itself having been converted into this succulent membranous layer. Where the periosteum could be raised, the outer surface of this new osseous layer presented the ordinary perforated or cribriform appearance of new periosteal bone, though, to the touch, it could hardly be recognized as bone; it was yielding and elastic. The surface of a vertical section, at right angles to the surface of the shaft, presented the appearance of closely patched osseous fibres of very delicate or filamentous appearance, applied obliquely to the surface from below upwards; it was impossible to isolate them for microscopic examination; they always separated in masses, splitting in the direction of the osseous fibres, with an inclination, especially in those towards the external surface, to split or peel off downwards in shreds or films parallel to the shaft of the bone, apparently indicating the commencement of a circumferential lamellated structure. A transverse section of this thin layer of new periosteal bone showed the existence of numerous Haversian canals, generally of large size and elongated oval form, the long axis being placed more or less at right angles to the shaft; there were no appearances of concentric lamellæ surrounding the Haversian canals. Faintly marked lacunæ existed in abundance without any definite arrangement.

This child struck his tibia in a fall against a crate, about a month previous to his death, which was caused by an attack of pericarditis.

Dr. Brinton, at the request of Dr. Williams, stated that he had made a microscopic examination of some exudations from the alimentary canal, of which he gave the following report:—

The larger and whiter (probably purer) specimens, were long, flat, and riband-like, with a distinct cleavage in planes, parallel to the flat surface. They consisted of irregular shrunken cells, of small and uniform size, spindle-shape, and yellowish colour. No nucleus could be distinctly made out, whence they were probably of the cytoblast form. A considerable quantity of jelly-like albuminous substance united these cells. In short, these substances appeared to be the ordinary exudations of an inflamed mucous surface; viz., the natural cell growth of the part, increased in quantity and in the number of its layers, and diminished in development. The shrunken appearances of the cells were probably due to the alcohol in which they had been kept, a cause which had probably increased the apparent quantity of the intercellular albuminous substance. With many of the specimens were seen small crystalline masses of soft consistence and tetrahedral form. They were found only on the surface, and especially on the filamentous extremities of the substances; they were mixed with cholesterine; they were slightly soluble in ether, and unaffected by dilute acids or alkalies. Hence they were probably some form of fat, either mixed with the exudations in the body, or roughly crystallized from the alcoholic solution.

Thus the microscopic appearances of these bodies fully confirmed the view of their inflammatory import deduced by Dr. Williams from their history.

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MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—Professor Owen will commence his annual course of lectures, in the theatre of the College, on Tuesday, the 4th of March next, and deliver twenty-four lectures on Comparative Osteology. Professor Paget will commence his course of six lectures on Tumours, on the 29th of April. Tuesdays, Thursdays, and Saturdays, at four o'clock, is the time appointed for the delivery. The interesting course of Microscopic Demonstrations, by Mr. Quekett, will terminate for the season on the commencement of the above lectures. We have made arrangements to publish them with the same regularity and accuracy as heretofore.

HONORARY DISTINCTION.—The Emperor of Russia has conferred the decoration of a Commander of the Order of Stanislaus upon Dr. Lallemant, a physician of Rio de Janeiro, in considerations of his medical services to Russian subjects during the prevalence of the recent yellow fever epidemic in that city.

OBITUARY.—At Panama, on the 9th December last, at the Western Hotel, Thomas James Hammond, Esq., surgeon.

NAEGELE, the celebrated Professor of Midwifery of Hiedelberg, and Langenbech, the no less distinguished Professor of Anatomy and Surgery at Gottingen, are dead. They died on the same day, Naegele at the age of 72, Langenbech at 75. Naegele was born at Dusseldorff and studied at Strasbourg and Paris. Langenbech, at his own expense, erected and endowed at Gottingen a Surgical Hospital and Anatomical Theatre.

DR. THOMAS STONE, the well-known anti-phrenologist, has been appointed to the superintendence of the Haydock Lodge Lunatic Asylum, near Manchester.

SALE OF POISONS.—The Government have announced their intention to introduce a bill to restrict the sale of arsenic and of other poisons. The public will owe this great benefit to the exertions of the members of the medical profession. If quack medicines—a legalised poison—were included in the measure, the advantage of the boon would be greatly extended.

KOUSSO.—As our readers are aware, Mr. John Savory, the well-known and eminent chemist of Bond-street, offered sundry doses of kousso to those gentlemen who wished to try its effects as an anthelmintic upon persons suffering from tapeworm. Mr. Savory's philanthropic proposal was readily adopted by several medical men. Some of the returns Mr. Savory received are now before us, and we hasten to inform our readers of the results of so charitable and praiseworthy a gift,—no slight one, be it remembered, considering that the price of the drug has hitherto been not less than fifteen shillings a dose. We may add, however, that Mr. Savory hopes to be able to dispense this valuable medicine, whose efficacy seems now fully established, at a much lower rate. The specimens he has distributed were forwarded to him by a correspondent, and, their virtue being proved, he expects shortly to receive a considerable supply at a more moderate cost. Mr. Wood, of St. Bartholomew's Hospital, has used Mr. Savory's specimen in four cases, in all of which it was successful in expelling the worm. "In consequence of the bulk being so great," Mr. Wood says, he divided the dose into two parts; and, as the result of the diminished quantity was the same, Mr. Wood thinks half the quantity that is usually given would be equally efficient. Dr. Richardson, of Hinde-street, Manchester-square, having previously seen the kousso given with success at Bethlem Hospital, administered Mr. Savory's specimen to a private patient, on whom he had "nearly run through the whole list of anthelmintics." A portion of the worm was brought away. Dr. Paley, of Peterborough received two doses from Mr. Savory. He administered one to "a man who had suffered for sixteen years from tapeworm, and to whom he had given turpentine and other powerful remedies with little effect. He took it fasting at half-past eight in the morning, and at half-past two passed the worm, apparently entire, and measuring six yards." The second dose Dr. Paley gave "a patient who had suffered for many years with tapeworm, and on whom he had previously tried every remedy he could think of. In about six hours the entire worm, measuring six yards, was expelled." Mr. Square, of Doncaster, writes, "The kousso has had the desired effect. The dose was taken in gruel on Saturday week. The next morning, at six o'clock, tape-worm 18½ feet came away. Another worm came away in the next stool at eight o'clock ten feet long." Mr. Pittard, of Well-close-square, "made trial of it in one case of twenty-three years standing, with complete success." Dr. Wilson, of Bainbridge, near Winchester, forwards "a tapeworm—a very fine specimen—removed by Mr. Savory's kousso." But it is unnecessary to multiply cases. The efficacy of kousso is completely established. The new Pharmacopœia of the College of Physicians will soon be published by Mr. Churchill, and in it we trust to find this anthelmintic legitimately recognised. Much praise is due to Mr. Savory; and, on behalf of the Profession, we tender him our acknowledgments for his public-spirited liberality. Mr. Savory is also circulating the sumbul, a new remedy introduced by Dr. Granville. We wish we saw other great drug houses following this good example.

UNUNITED FRACTURE.—OPERATION NEW IN ENGLAND.—The operation proposed for Pseudarthrosis, by Dieffenbach, and described at length by Dr. Bushnan in this Journal (Jan. 16th, 1847,) was performed by Mr. Stanley, at St. Bartholomew's Hospital, on Saturday last. The fracture was of the tibia. Duhamel and Flourens established the fact, that when foreign bodies, as bullets, &c., are lodged in bones, a great quantity of healthy and hard callus is deposited over them. Dieffenbach, applying this rule to cases of ununited fractures, pierced the limb with a small scalpel, or trocar, down to the fractured bone, each end of which, about half an inch from the fracture, he drilled with a common gimlet. Into each hole thus formed he introduced a small ivory peg, which he strongly wedged by a few blows of a hammer. When, from the lesser degree of mobility between the ends of the bone, generally about ten days after operation, it became apparent that callus had been thrown out, the pegs were removed. Dr. Bushnan relates three successful cases of this kind, one of which he witnessed. He also saw a fourth case, and all were successful. Mr. Stanley's operation was not so simple. He first dissected and turned back from the bone a considerable flap. He then introduced, on either side of the fracture, two pegs, which he cut off level with the superior surface of the tibia, and over these he replaced the flap, and consigned the limb to the fracture-box. Dieffenbach always left the pegs protruding through the integuments, and easily to be removed with a pair of pliers. How will Mr. Stanley's pegs be removed? Dieffenbach's operation occupied but a few minutes, Mr. Stanley's a considerable time. We shall anxiously watch this case, the first operated upon in England, and trust, for the credit of what is really a very simple affair, the result will be as successful as that described by Dr. Bushnan.

WAINFLEET, LINCOLNSHIRE.—SERIOUS CHARGE AGAINST TWO MEDICAL GENTLEMEN.—On Friday last, Messrs. Kirkham Burton and Dawson, surgeons, were charged, on the information of the Government Inspector, before the Rev. T. Booth, of Friskney, with the serious offence of having signed a certificate upon which Samuel Lee, farmer, of Friskney, was incarcerated in the Lincoln Lunatic Asylum, neither of the parties having personally examined the said Samuel Lee; and, after a careful examination, they were committed for trial at Lincoln Assizes. The parties were severally admitted to bail, themselves in 100*l.* and sureties in 50*l.* each. The affair has caused the utmost excitement in the neighbourhood, where the accused occupy a highly respectable position.

NORTH PANCRAS PROVIDENT DISPENSARY, FOR THE INDUSTRIOUS CLASSES.—The first Annual General Meeting of Governors of this Institution was held on the 30th of last month, when a Report was presented of its operations and receipts to the 31st December, 1850. It appears that during the period which has elapsed since its foundation, 1589 persons have been enrolled as members; that 1436 cases have actually received medical treatment, of whom 1182 have been cured, 112 relieved, 22 have died, and 126 remain under treatment: 55 midwifery cases have also been attended by the medical officers. From the financial statement it appeared, that the sum of 68*l.* 18s. had been received in contributions from the public, and the sum of 142*l.* 18s. 7d. from the payments of the members; while the expenditure of the Society had been 148*l.* 5s. 5d., leaving a balance in favour of the Society of 63*l.* 11s. 2d., against which was to be placed liabilities to the amount of 121*l.* 3s. 7d. The income required from the contributions of the public, for the efficient working of the Institution, was estimated at 150*l.* a year, of which only one-third has as yet been secured; hence has arisen the balance against the Society. The Society was stated to have given great satisfaction to the labouring classes of the neighbourhood. The Report was considered satisfactory, and ordered to be printed; and resolutions expressive of confidence in the value of the Institution, and of continued exertion in its behalf, were unanimously passed.

DEATHS *in the Metropolis for the week ending Saturday, Feb.* 15, 1851.

BIRTHS AND DEATHS.

	Births.		Deaths.		Births over Deaths.	
Males	821	1576	515	1036	306	540
Females	755		521		234	

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The Deaths in the several Districts are as follow :—

Districts.	Population in 1841.	Feb. 15, 1851.	Sum of Ten Weeks.
London	1948369	1036	10497
West	361189	165	1494
North	378568	210	1931
Central	274199	175	1986
East	393967	209	2286
South	503346	277	2800

Causes of Death.	Feb. 15. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	467	359	210	1036	10497
Selected Causes	465	358	208	1031	10430
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	159	43	10	212	1981
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	6	29	18	53	532
3. Tubercular Diseases.	54	107	6	167	1908
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	52	86	29	166	1241
5. Diseases of the Heart and Blood-vessels	4	25	18	47	371
6. Diseases of the Lungs, and of the other Organs of Respiration ...	85	70	65	220	2111
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	33	18	5	56	608
8. Diseases of the Kidneys, &c. ...	1	13	5	19	79
9. Childbirth, Diseases of the Uterus ...	...	7	2	9	124
10. Rheumatism, Diseases of the Bones, Joints, &c.	3	1	1	5	87
11. Diseases of the Skin, Cellular Tissue, &c.	...	...	...	...	10
12. Malformations	2	...	...	2	24
13. Premature Birth and Debility ...	26	1	...	27	231
14. Atrophy	23	...	3	26	153
15. Age	...	...	38	38	704
16. Sudden	5	3	1	9	141
17. Violence, Privation, Cold, and Intemperance	12	16	7	35	265
Causes not Specified	2	1	2	5	77

1. Small-pox ...	26	Paralysis	15	Disease of Spleen	...
Measles	29	Delirium Tremens	2	8. Nephritis.....	4
Scarlatina ...	20	Chorea	1	Nephria or Bright's Disease ...	5
Hooping Cough	42	Epilepsy	6	Ischuria	1
Croup	10	Tetanus	1	Diabetes	1
Thrush.....	1	Insanity	3	Stone	...
Diarrhœa ...	17	Convulsions	33	Cystitis	2
Dysentery ...	2	Disease of Brain, &c.	7	Stricture of Urethra ...	...
Cholera	...	5. Pericarditis...	1	Disease of Kidneys, &c.	6
Influenza ...	3	Aneurism ...	...	9. Paramenia ...	...
Purpura and Scurvy	1	Disease of Heart	46	Ovarian Dropsy.....	1
Ague	...	6. Laryngitis ...	2	Childbirth (see Metria)	5
Remittent Fever	2	Bronchitis ...	103	Disease of Uterus, &c.	3
Infantile Fever	1	Pleurisy	3	10. Arthritis	...
Typhus	48	Pneumonia...	73	Rheumatism	2
Metria or Puerperal Fever	2	Asthma	26	Disease of Joints, &c.	3
Rheumatic Fever	2	Disease of Lungs, &c.	8	11. Carbuncle ...	...
Erysipelas ...	5	7. Teething	22	Phlegmon	...
Syphilis	5	Quinsey	1	Disease of Skin, &c....	...
Noma or Canker.....	...	Gastritis	1	17. Intemperance	1
Hydrophobia	...	Enteritis	5	Privation of Food.....	2
2. Hæmorrhage	4	Peritonitis ...	3	Want of Breast-milk	2
Dropsy.....	20	Ascites.....	3	Neglect	...
Abscess	2	Ulceration (of Intestines, &c.)	3	Cold	...
Ulcer	2	Hernia	1	Poison	1
Fistula.....	1	Ileus.....	1	Burns and Scalds	7
Mortification	5	Intussusception	...	Hanging, &c.	...
Cancer.....	19	Stricture of Intestinal Canal	...	Drowning ...	12
Gout.....	...	Disease of Stomach, &c.	6	Fractures ...	10
3. Scrofula	7	Disease of Pancreas ...	...	Wounds	...
Tabes Mesenterica	12	Hepatitis.....	4	Other Violence.....	...
Phthisis (or Consumption).....	124	Jaundice	...	All Violence	30
Hydrocephalus.....	24	Disease of Liver	5		
4. Cephalitis ...	10				
Apoplexy.....	23				

TO CORRESPONDENTS.

[To the Editor of the Medical Times.]

Sir,—The Editor of the "Medical Directory" having inserted a List of Regulations relating to the Degree of Doctor of Medicine in the University of St. Andrews, considerably at variance with those which in my capacity of Secretary I forwarded to him, I shall feel obliged by your directing the attention of your readers to the error into which he has fallen, and, if you can afford the space, by your printing them as they actually exist.

I am, &c., James McBean, Secretary.

University of St. Andrews, 13th Feb., 1851.

UNIVERSITY OF ST ANDREWS.

REGULATIONS OF THE SENATUS ACADEMICUS RESPECTING THE EDUCATION OF CANDIDATES FOR THE DEGREE OF DOCTOR OF MEDICINE.

I.—Every Candidate for a Diploma in Medicine, upon presenting himself for examination, shall produce satisfactory evidence—

1. Of unexceptionable moral character.
2. Of having had a liberal and classical education.
3. Of having completed the twenty-first year of his age.

II.—Fellows, Members, and Licentiates of the Royal Colleges of Surgeons of England, Edinburgh, and Dublin—of the Royal College of Physicians of London—of the Faculty of Physicians and Surgeons of Glasgow—and of the London Apothecaries' Company—are eligible as Candidates for the Degree of Doctor of Medicine, on producing their Diploma or Licence.

III.—Candidates not holding any of the qualifications enumerated in the above clause, must produce satisfactory proof that they have regularly attended Lectures delivered by Professors in some University, or by Fellows of the Royal Colleges of Physicians or Surgeons of London, Edinburgh, or Dublin, for four complete Winter Sessions, or for three Winter and three Summer Sessions, on the following branches:—

1. Anatomy	2 courses of six months each.	
2. Practical Anatomy or Dissections	12 months.	
3. Physiology.....	1 course of six months.	
4. Chemistry	1	do. do.
5. Practical Chemistry	1	do. of three months.
6. Materia Medica and Pharmacy ...	1	do. do.
7. Midwifery and Diseases of Women and Children	1	do. do.
8. Surgery	1	do. of six months.
9. Clinical Surgery	1	do. do.
10. Practice of Medicine	1	do. do.
11. Clinical Medicine	1	do. do.

and that they have diligently attended for at least two entire years the Medical Practice in some Public Hospital in Great Britain or Ireland, containing at least one hundred beds, and having a regular Establishment of Physicians as well as Surgeons.

REGULATIONS RESPECTING THE EXAMINATIONS.

EXAMINERS FOR DEGREES IN MEDICINE.

GEORGE E. DAY, M.D., F.R.S., Professor of Anatomy and Medicine.
ARTHUR CONNELL, F.R.S.E., Professor of Chemistry.
WILLIAM PYPER, LL.D., Professor of Latin.

ASSISTANT EXAMINER.

ANDREW ANDERSON, M.D., Professor of Medicine in the Andersonian University, Glasgow.

The Examinations take place twice in the year, commencing on the first Wednesday in May, and the third Wednesday in October. The graduation fee is Twenty-five Guineas. In the event of a Candidate being found unqualified, he shall forfeit five pounds of the graduation fee; which, however, will be accounted for to him, when he passes his examination at a subsequent trial.

Candidates can only be admitted to examination at other periods by a special grace of the Senatus Academicus. The graduation fee in this case is Fifty Guineas.

The examination extends over two days, and is conducted partly in writing, and partly orally.

On the first day Candidates are required to give a written translation of a passage from a Latin Medical Author, and are examined in the Elements of Chemistry, in Materia Medica, and in Anatomy and Physiology.

On the second day they are examined in Pathology and the Practice of Medicine, in the Principles of Surgery, and in Midwifery.

The degree is conferred on the following morning by the Rector, in the Hall of the Public Library of the University, and the Diplomas are signed by the Principals and Professors of the University.

Every Candidate is required to present himself for registration to the Secretary, on or before the day preceding the examination, and to communicate by letter with the Professor of Medicine, at least a fortnight previously, stating what Diploma or Certificates he intends to produce.

JAMES M'BEAN, A.M., Secretary.

As the Examiners receive very frequent applications respecting the course of reading to be pursued, they beg to recommend the following works as especially deserving of perusal:—

Wilson's Chemistry, published by Chambers.
Christison's Dispensatory, or Pereira's Materia Medica (especially the sections treating of the mode of action, uses, and administration of Medicines;) and the London, Edinburgh, or Dublin Pharmacopœia.
Quain's Elements of Anatomy, 5th Edition.
Carpenter's Principles of Human Physiology.
Watson's Lectures on the Principles and Practice of Physic.
(Williams's Principles of Medicine, and Vogel's Pathological Anatomy of the Human Body, may also be read with advantage.)
Miller's Principles of Surgery.
Churchill, On the Theory and Practice of Midwifery.

London Medical Society.

[To the Editor of the Medical Times.]

Sir,—My attention has been directed to a letter published in your Journal of the 15th inst., which has caused me some little surprise, not to say annoyance. Your Correspondent, in noticing a paper I read before the Medical Society of London, accuses me of bad taste and other matters for which I think he is not justified. He has taken different parts of my paper, which were specially written, as contrasts, and has put them together for his purposes of detraction. He must indeed be a "junior" member of the Profession if he does not know that I do not bear a character for immodesty, either of act or speech. I cannot but regret, that before giving insertion to his letter you did not, as my long experience of the Press teaches me should have been done, refer to your own reporter, in whose hands my paper has lain

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ever since it was read, for you would then have found that my "imaginary hero under the archway" was simply an individual who, after a brisk walk in broad daylight, stood up, from stress of weather, in a draught of air, and caught a cold in his head. I am, &c.,

10, New Cavendish-street. JNO. CHIPPENDALE.

LONDON MEDICAL SOCIETY.

[To the Editor of the Medical Times.]

SIR,—As the statement that Dr. H. Bennett considered ulceration as a primary phenomenon, originally came from me whilst commenting upon some of the many errors with which his work abounds, perhaps you will allow me to give one of the passages upon which this opinion was founded.

At page 110 of the last edition of his work "On Inflammation of the Uterus," this author says, "It has been asserted by several French writers, that the inflammatory hypertrophy of the cervix so frequently observed in women who have had children, and who are suffering from inflammation of the cervix, is the principal cause of the ulcerations which nearly invariably accompany it; or, in other words, that the ulceration is generally a secondary affection. This assertion, however, is evidently an error. I have very often been able to follow the extension of the inflammation accompanying ulcerative disease to the deeper seated tissues, and to watch the gradual manifestation, under its influence, of deep-seated induration. Thus I have frequently seen cases in which a slight ulceration was at first the only lesion, and in which the general induration which subsequently made its appearance gradually became more and more marked as the ulceration increased in extent."

Now, although I freely admit that there is great confusion of words in the above quotation, yet when an author says that it is evidently an error to consider ulceration as a secondary affection, and that he has frequently seen cases in which ulceration was at first the only lesion, I can draw no other deduction than that ulceration is here considered and spoken of as a primary morbid state, and to occur without any assigned cause. And when the same author continues, and says that he has been able to follow the extension of inflammation under the influence of ulceration, and that the inflammatory induration made its appearance subsequent to the existence of ulceration as the only lesion, and became more and more marked as the ulceration increased in extent, I again can arrive at no other conclusion than that ulceration is here said to precede inflammation, and to be the cause of the subsequent development of the inflammatory process.

The statement that Dr. Bennett made, that he was "incapable of such a pathological absurdity" as the above quotation appears to imply, has no weight with me, for I am accustomed to the great inflections of expression in which this author is accustomed to indulge.

I am, &c., T. SNOW BECK, M.D.

Langham-place.

An Herbalist.—We cannot insert our Correspondent's communication; although we readily agree with him, that the virtues of many of our common plants are unknown, or, if known, unappreciated. Thus, in Germany, to excite a profuse perspiration—and we have often witnessed it—a sort of bath of birch leaves (*Betula alba*) is used. The patient is placed in the bed naked, and immediately upon a layer of leaves, with which he is also covered, the ordinary bed-clothes being placed over all. In a very short time a most profuse diaphoresis occurs, and a great discharge of urine.

King's College Student.—It is not our province to reply to such questions. If our Correspondent applied to his professor he would learn, and save us the trouble of informing him, that the longer a pendulum is, the fewer are its vibrations in a given time. To vibrate seconds, then, a pendulum must have a determinate length. In the latitude of London, according to Captain Kater, this length must be 39·1393 inches.

A Well-wisher and Constant Reader is thanked for his kindly expressions. We have only in reply to repeat, that it is but natural the distinguished men who give us their support, and the many who have promised contributions to our pages, should excite envy. But the very consciousness of our strength enables us to regard malice with a smile. Its shafts fall harmless, and without injury to the mark at which they are so clumsily aimed.

A Fellow of the Medical and Chirurgical Society.—There is no doubt that great opposition will be offered to Mr. Hodgson, who is proposed by the Council as President. Why Mr. Lloyd, of St. Bartholomew's, should be passed over to make room for a gentleman lately come from the Provinces, and not, we believe, in practice,—for his name is not on his door—we are at a loss to conceive. Again, Mr. Hodgson holds the inferior appointment of Examiner in Surgery in the University of London. What would the Legal Profession say if a Queen's Counsel accepted the office of Revising Barrister to some country borough? Westminster Hall would be in an uproar at such a proceeding of a Senior Counsel. We have heard that objections, similar to those urged by our Correspondent, were formerly made to the gentleman now in office; and in reply, we ask, when had the Medical and Chirurgical Society a better President than Dr. Addison? Mr. Macilwain, however, stands next in rotation, and should not be passed over. As regards the Secretaryship, there seems a very general wish that Dr. Basham should be appointed.

MR. ADAMS'S COMMUNICATION IN OUR LAST NUMBER.

[To the Editor of the Medical Times.]

SIR,—In, January, 1850, I published in the pages of the "London Medical Gazette," some observations on the treatment of Nævi Materni, in which, after describing the plans of cure applicable to the different forms of the growth, I remarked: "A mixed nævus situated on the face may sometimes be advantageously removed by the subcutaneous ligature described in the treatment of Case 2. In this mode a strong ligature is carried around the base of the tumour immediately beneath the sound skin at its border, and strangulation of the growth is effected without slough or destruction of the integuments. The subcutaneous part of the nævus is effectually destroyed by inflammation and suppuration, and the passage of blood into the cutaneous portion being in a great degree intercepted by constriction of the tissue beneath, this part fades and disappears, whilst the nourishment which it receives from the circulation in the adjoining skin prevents it from perishing. This mode of applying a ligature is applicable to many cases of simple subcutaneous nævus. It is less painful than, and in other respects preferable to, the plan sometimes adopted, of dividing the skin around the growth before strangulating it with a ligature." Case 2 is one of mixed nævus of the lower eyelid, which, after the failure of setons, was cured by subcutaneous ligature, without disfigurement or loss of skin. I described the mode of passing the ligature, which was illustrated by a wood-cut.

I have not heard of this mode of treating nævi by a subcutaneous ligature having been previously suggested or described. It was consequently with some surprise that I read in your Journal of last Saturday, a short paper on the subcutaneous ligature for nævus by my colleague Mr. Adams, in which, after a few general observations on the treatment of these growths, he remarks: "It has suggested itself to me that a ligature might be so employed as to embrace the whole of the disease without compromising in any manner the vitality of the superjacent skin; and the following is the plan I put into operation in a recent case." He then describes a case of nævus in the face, around which the subcutaneous ligature was applied, in a way which is only a slight modification of the plan I had described; the chief difference being, that a slight division of the skin was made in two places to prevent puckering. The case was not successful, because, as Mr. Adams states, the ligature was afterwards divided instead of being made to cut its way through the base of the tumour by gentle traction; the course which I had pursued with a better result.

As Mr. Adams made no allusion whatever to my observations and case, I concluded that he either had not seen the paper, or had quite forgotten it; and I therefore wrote to him, calling his attention to my prior publication, not doubting that he would readily offer some explanation of the matter in your journal. Mr. Adams, in reply, admitted that my paper was not new to him, but declined publishing any explanation, stating that his plan of applying the ligature was different from mine. I am, therefore, reluctantly compelled, in justice to myself, to make the above statement, which I now leave without comment. Hoping you will do me the favour to give this letter an early insertion, I am, Sir, &c., T. B. CURLING.

New Broad-street.

P. S. I think it right to add, that since writing the above, I have received a note from Mr. Adams, in which he states, that had he read that part of my paper which referred to the subcutaneous ligature, he should most assuredly have alluded to it in the "Medical Times."

*** Mr. Adams requests us to state that, when his paper was written, he had not read Mr. Curling's paper in the "Medical Gazette," or he should have noticed it in his communication to this Journal.

ABUSE OF THE SPECULUM.

[To the Editor of the Medical Times.]

SIR,—Pray what does the Editor of the "Provincial" mean by "your crusade against the speculum?" A friend of mine had a patient who saw a peeping Tom, who declared her deafness to be hysterical, and proceeding from ulceration of the neck of the womb. Her mother had regard for her daughter's virtue, and came home. The girl's ears were syringed, and she got well.

I am, &c., A FATHER OF DAUGHTERS.

[To the Editor of the Medical Times.]

SIR,—I beg to thank you for the truly excellent analysis of Mr. Wharton Jones's Essay, which appeared in the "Medical Times" of the 8th inst., and I doubt not hundreds of your readers concur with me in this expression. I believe that analytical are far more acceptable to the Profession generally than critical reviews. The latter may be more easily composed, and may display more forcibly the controversial talent of the writer, but you may depend upon it that many, even the humble village apothecary, are quite as competent to form an opinion of scientific matters as some of the legion of periodical censors. Many of the ordinary reviews are perfect nuisances. By affording such articles as the one alluded to, as often as practicable, you would not only confer a boon on your subscribers, but obtain for the "Medical Times" an addition to the high character it has already obtained for literary and scientific excellence. I am, &c.,

Bridlington. J. ALLISON.

Mr. Verrall's communication on the treatment of distortions is in type. It shall appear next week.

Mr. Lafargue.—Next week.

A Subscriber of Two Years' Standing.—It is generally supposed that the annual cost of each bed in an Infirmary is 30*l*. We are quite incompetent to answer our Correspondent's second question. It is altogether a matter of taste and convenience.

Mr. Gaelike and Mr. Saunders are assured they are not forgotten.

WE regret exceedingly that we cannot, without a total disregard to fairness, publish papers out of their turn. We will use our best endeavours to expedite matters, and to comply with the wishes of numerous correspondents. A most valuable communication by Dr. John Taylor, of Huddersfield, has been long in our possession, and it is only now that we are enabled to pass it to our printer.

COMMUNICATIONS have been received from—

Dr. BUDD, of King's College; Mr. WILDE, of Dublin; Mr. SAUNDERS, 47th Regiment, Waterford; Mr. DAVEY, of Walmer; A. B. C.; KING'S COLLEGE STUDENT; A WELL-WISHER AND CONSTANT READER; A NOTE OF ADMIRATION, !; AN HERBALIST; A FELLOW OF THE MEDICAL AND CHIRURGICAL SOCIETY; Mr. SLATER, Secretary City of London Hospital for Diseases of the Chest; Dr. ALDIS, of Chester-terrace; Mr. CHIPPENDALE, of New Cavendish-street; Mr. DOVER, of New-street, Spring-gardens; Dr. LEES, of Ashton-under-Lyne; Mr. SIMPSON, of Maidstone; Mr. ALLISON, of Bridlington; A FATHER OF DAUGHTERS; Mr. CURLING, of New Broad-street; Mr. ANNAN, of Kinross; Mr. ADAMS, of the London Hospital; Dr. INGLIS, of Halifax.

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ORIGINAL LECTURES.

THE HUNTERIAN ORATION,

WHICH

WAS NOT DELIVERED

BY THE HUNTERIAN ORATOR,

IN THE

THEATRE OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND IN 1851.

Mr. President and Gentlemen,—If there be one task more onerous than another, which the honourable position of a member of the Council of the College of Surgeons has imposed upon him, it is that of delivering the Address, which in turn has devolved upon the unworthy individual who now presents himself before you. Not that the theme which the name of the great John Hunter presents is not one of immense fertility; but that it has been successively treated by those master minds in surgery, some of whom have passed to their rest, but many still remain to adorn our art, and maintain the great principles of our science. Nor is it their success that renders it difficult to tread in their footsteps; but when I look back upon the past, and see that our Hunterian Orations have been but one series of failures, I do feel that it is a difficult task to avoid the shoals and breakers on which so many great men have been wrecked. Pardon me, then, if, in the remarks I am about to make, I cast into oblivion the peculiar policy, the idiosyncracies, the habits of thought, or the special views of any man or any set of men, who, by the accident of position or the force of talent, may at the present moment occupy seats in our Council, and endeavour to fix your attention, as far as I am able, on the spirit and character, the aims and views, of the man whom all agree to regard as the greatest surgeon of this or any other age, and who, although he practised that department of our Profession which is called surgery, shed the light of a brilliant genius upon all questions connected with the art of healing. Gentlemen, believe me, John Hunter belongs not to surgery alone. Do you doubt me? Turn into our noble museum and tell me, amidst that grand collection of the forms of organic life, what department has been neglected, which field of medical research, or medical practice the genius of Hunter intended to stamp with contempt. Summon to your presence the man whom it ought to be your greatest pride to have appointed the expositor of this museum, and inquire if there exists a tittle of evidence to prove that John Hunter had not, as the great motive to all his conduct, the faith that medicine and surgery were one, and that his position and yours, in the practice of a common profession, were accidents, and not the result of any natural distinction discoverable by the sciences he cultivated, and which you, unfortunately, too frequently neglect. Then, perhaps, I may be excused if I connect the name of Hunter with some remarks on the general subject of our Profession.

I feel assured that it does not derogate from his dignity, or do violence to his spirit, to associate him with discussions on the present aspects of medical organization.

Permit me to take you back to the reign of "bluff Harry," in order to see how rough hearts and ready hands then worked the profession of medicine. Up to that time, all knowledge of the healing art, its principles and successful practice, was confined to the Church. But in the time of Henry measures were taken to organise medical practice. The State came to the clear conviction, that it was their duty to protect the people of this country against the practices of ignorant and illiterate pretenders to the knowledge of diseases and their remedies. First of all, the bishops were appointed to examine candidates for the honour of practising medicine. In the early part, however, of the reign of Henry, Linacre, who was at once a priest and a physician, saw the necessity of vindicating for medicine an independent position; and, through his intimacy with Cardinal Wolsey, succeeded in obtaining a charter of incorporation for the learned men who then practised medicine, under the name of the College of Physicians. That Linacre's learning had produced the same breadth of character and catholicity of purpose as John Hunter's science, is seen in all the documents relating to this charter. Wonderful as it may appear to you at this time, it is no less true than wonderful, that this charter was obtained by the noble Linacre and his friends, to found an organisation that should embrace every department of medical practice, and secure to the people of this country wise and learned practitioners of both medicine and surgery.

The College of Physicians at first embraced within its walls both those who prescribed and those who attended to wounds; for, as stated most truly in one of the Acts securing to the College of Physicians its privileges, "the science of physic doth comprehend, include, and contain a knowledge of surgery." But, inflated with the learning of the schools, ignorant of anatomy, only anxious to secure a monopoly of London practice for themselves, the Fellows of the College of Physicians subsequently neglected the practice of Surgery, failed to put in force the powers which they had to secure properly qualified practitioners in the country, and degenerated into a clique of London hospital physicians. We are here to-day, not because of any necessary distinction between physic and surgery—not that the Legislature has made any such distinction—but because the men to whom the first power to create practitioners of medicine was confided have been unfaithful to their trust, and neglected one of the most important branches of their Profession. Have I said neglected? Gentlemen, we should not have been here to-day had the College of Physicians simply neglected surgery. They persecuted it. If we can boast of our Hunters, our Coopers, our Lawrences, our Brodies, and our Fergussons, no thanks to the College of Physicians. They ever used the legal power they possessed to crush the practice of surgery.

To whom are we indebted for our origin? To Podalirius and Machaon, who followed Agamemnon to the plains of Troy? To Celsus, Galen, or the middle-age Paracelsus? No, gentlemen, to none of these can we trace our origin. The learning of the ancients, as far as our Profession was concerned, was not confined to, but confined by, the College of Physicians. We can claim no learned origin. No, we are indebted for our existence as surgeons to the plain, common sense of the broad Saxon head, and the rude Saxon hand. Gentlemen, our barbers were our first surgeons. Nor let your origin shame you. It has been too much the custom for us to join with our proud aristocracy in depreciating the working and the trading classes of Great Britain. I am not ashamed to acknowledge my relationship with and origin among them as a man, and I see no reason why we should repudiate our connexion with them as a body. In this respect, John Hunter is a type of our Profession. He commenced his career as a handicraftsman, and owed not a little of his success, as a surgeon and a philosopher, to the habits he acquired while working at a trade with his hands. I could mention some living among you who, I blush to say, would blush were I to name the trades in which their fathers gained their wealth, or in which they themselves, unknown to all, have been engaged.

But why do I thus dwell on your origin and connexion with trade? To condemn that most contemptible regulation of all the contemptible rules that you have from time to time issued, which excludes from a seat at your council the surgeon who dispenses his medicines. You cannot exclude these gentlemen but on the ground that this practice smacks of trade. Even though there was something dishonourable in trade, something that tinctured a man's nature who got his living over a counter, you are the last persons in the world who should thus cast contempt upon honest industry and repudiate your greatest benefactors.

Fain would I draw the veil of silence over the remaining part of our history; but I must declare the truth. The separation of surgery from physic, and all that chapter of contention, jealousy, envy, malice, and all uncharitableness, that preceded the establishment of our College, and our rescue from the ignominy of shaving, powdering, bleeding, and drawing teeth in the same shop, is but a part of the sin we have to lay at the door of the College of Physicians. No sooner were the surgeons triumphant, than that College found new victims for its wrath, in the "medicasters," the "hungry"-apothecaries that swarmed throughout this country in the 16th and 17th centuries. These men, employed by the physicians to dispense their medicines, as intelligence advanced, became themselves the physicians of the poor. The College, too proud to put up their own medicines, and too arrogant to instruct these men how to employ the potent agents they dispensed, sought to crush them with

the legal power which a careless Government had placed in their hands. The medicasters, too poor to obtain their learning at the aristocratic universities of England, whence alone the College would recognise the wares it dealt in, sought from what sources they could, the information they required to supply with safety in disease, the drugs in which they dealt. In their hour of greatest need, our College opened to them its portals. We came to the rescue, and gave to the physicians of the people a title and collegiate standing. They, in turn, rallied round us, and gave to the College of Surgeons a broad basis in the affections of a sincere, earnest, and self-devoted body of medical practitioners. Our examinations, well-meant enough, have, however, never been more severe than would enable a journeyman pastry-cook, with twelve months' "grinding," to pass with honour. The "medicasters" had, by their energy, and the increased confidence placed in them by the public, rescued the practice of midwifery from the hands of superstitious and imbecile women; but neither ourselves nor the College would soil our genteel hands with the ignoble practice. Louder and louder became the cry, that those who ministered most largely to the wants of the diseased should have the seal of qualification by which they might be distinguished from the herd of ignorant pretenders by whom they were surrounded. The College of Physicians turned a deaf ear. *We* had become too much encrusted with surgical prejudices to think of extending our examinations, and were rapidly approaching that condition of purity which, initiated by the Charter of 1845, has well nigh brought our noble building in fragments over our ears. Although dead to all entreaties to admit the "general practitioner," as he now began to be appropriately named, within their walls, the College of Physicians was quite alive to the disadvantage of allowing them an independent college to themselves. Hence the great "dodge" of allying them with trade. A city company was only too happy to undertake the lucrative monopoly. We can easily imagine the rubbing of hands, and the mutual congratulations which inaugurated this great occasion. The physicians had at last belled their cat. No Scotch, no Irish, no foreign graduate from universities, where the distinction of physician and surgeon was unknown but as one of convenience, could now practice without the brand of the "great A" from Union-street, Blackfriars. But alas, how vain are the hopes of man! While the despised and rejected surgeon-apothecaries have filled the land, and are the respected medical confidants of nine-tenths of the people of this country, the College of Physicians has dwindled down till it has nothing to subsist upon but pretensions to superior learning and wisdom. But still this College, with an obstinancy that reminds us

"Quem deus vult perdere prius dementat,"

refuses to give to these men, whose intelligence and skill now fill our land, corporate rights or collegiate standing within her walls. Can we wonder, then, that the general practitioners, driven from our own College, and denied entrance at another, should seek the establishment of one of their own? Shall we allow them to succeed? Gentlemen, believe me, we cannot prevent it, but by granting them their rightful demand, to find in us "the head and home" they now so anxiously desire. Distasteful as it may be, Mr. President and Gentlemen of the Council, I counsel it. Nay, I counsel more; I propose that we rest not here. I would have you not only embrace the general practitioners, but to insist on a league with the College of Physicians. I see no reason why we should not unite with them, and together institute an examination that shall hereafter be the only test of ability to qualify candidates for practice. Having done this, let us stretch out the hand of fellowship across the Tweed on one side, and the Irish Channel on the other, and seek to find with the Colleges of Ireland and Scotland a community of action, by which our whole Profession may be organised throughout the British Islands.

As a reason for this course of action, I urge not the interests of the general practitioner alone; nor do I urge or would I encourage the notion, that we should sink the peculiar practice of physician or surgeon. The genius of our age has led to an unexampled division of labour in every department of human occupation; and our Profession offers an unequalled field for the exercise of qualities acquired by especial attention to one class of phenomena. But let us not legislate for such distinctions. Let them be made in communities where they are most needed; and let those who cultivate these specialties form whatever associations they please for the advancement of their particular practice.

Still, our reforms must recognise things as they are. In Dublin and in Edinburgh there are Colleges of Physicians, as well as in London. Their diplomas are possessed by men who stand high in their profession, and who have won for these Colleges a fame equalling that of any which can be claimed by the College in London. Yet these gentlemen, speaking the same language, practising their profession under the same Sovereign, and in the same country, have been ignored by the College in London; and, if they have not been subjected to legal prosecution, they have been subject to a persecution as annoying, and frequently as destructive to their peace of mind and success in practice. This persecution, however, is carried on not in the provinces but in the metropolis.

Gentlemen, it is to me a devout source of thankfulness, that we have never been guilty of such practices; and I do feel that we are in a position to expostulate with our elder sister upon such disreputable procedures. Yet, much do I fear that our expostulation will be vain. Not that we shall be unassisted by the public and the Profession; but that the very constitution of the College itself has generated a shamelessness which seems past all ordinary influences.

Do you ask me, then, if I have hope as a medical reformer beyond our Colleges and Companies? Gentlemen, I answer that my hope is small. From the time of Henry VIII. to the present day no comprehensive plan of legislation, no recognised principles, have ever been adopted towards us by the Government of the country. Here a charter, and there a charter; here a power of granting degrees, and there a power of licensing without any regard to the interests of the whole Profession. Such has been the recklessness with which various bodies have got powers from the Crown, that a man wishing to practise as a physician in London might possess a dozen diplomas and licences to practise his Profession in different parts of the country, and yet he would be practising illegally unless he were licensed by the College of Physicians. It is in vain for the Minister to tell us, that when we are agreed he will be glad to attend to our wishes. Any agreement among ourselves on this subject is almost impossible. What, then, should be the principles that ought to guide a statesman in legislating for the Medical Profession? In the first place, gentlemen, I hold it to be the duty of the State to treat the Medical Profession as a unity. Let not the law trouble itself about degrees, diplomas, licences, physicians, surgeons, or general practitioners; but let it determine that every man who practises any branch of the Medical Profession shall give due proof that he understands the first principles and practice of his whole art. If no arrangement for carrying this into effect can be made with existing institutions, then let the Government withdraw from them all legal power, and appoint a body of qualified men to conduct a State-examination. Let this examination be conducted quite independent of any previous academical examination that candidates may be obliged to undergo before other bodies, as an authority to present themselves before this tribunal; but let the licence of the State qualify him to practise every or any branch of his Profession in all parts of Her Majesty's dominions. *One State licence to practise and the right of practising throughout the kingdom* are the two great principles on which alone any measure of reform should be based, and on which all measures, however far they depart from these principles, must be eventually based. I know how great must be the opposition to these simple principles; but that opposition will have its foundation in selfishness, and, like all error and injustice, it must eventually give way. I know that our Council, were such a measure introduced, would immediately begin to calculate as to what would be its effects on their College. Our "cannie" friends in the north would begin to consider how it would affect the profits of their universities; and every one would make it a pounds, shillings, and pence question. But to this our statesman must not listen.

Before I conclude, permit me briefly to allude to some questions of importance which relate to our internal organisation.

Of all the bodies in London we obtain annually the heaviest amount of fees; but how that money is spent I am too young in the Council at present to have learned. Perhaps it is imprudent to allude to it; but I cannot but refer, with pleasure and delight to the money we spend in keeping up the museum of John Hunter, sustaining the Hunterian Pro-

fessorships, and encouraging courses of lectures on microscopic anatomy and other subjects, which are truly a boon to the Profession. I would only hint, that we cannot do too much in this direction, and intimate my feeling, that any economy here would be false, and likely to frustrate its own object.

From the Apothecaries' Company none of us ever expected much. The fee for obtaining their licence was low, and their licentiates had no corporate rights whatever bestowed upon them; so that whatever came from this body was unexpected. They have, however, done much, and I am very greatly mistaken if posterity does not discover, that much of our own activity has been due to the judicious requirements and regulations of the examiners of the Apothecaries' Company.

Had time permitted me, gentlemen, I had fully intended to have entered on the subject of our present certificate system, and also the necessity for hospital reform. On the first subject I wished to call your attention to the fact, that certificates were granted without attendance, and that neither yourselves nor the lecturers you appoint ever make any investigations on the subject. Either attendance on lectures is a good thing and ought to be enforced, or it is a useless thing and you are conniving at a system by which thousands of pounds are annually taken from the pockets of the Profession. This is a question which, quiet as it looks just now, is one that you will have shortly to answer with a very decided yes or no.

How much crowds on me at this moment in relation to hospital appointments,—their nepotism, their favouritism, the sacrifice of all the holier feelings of humanity, and the noblest aims of our Profession to mere selfishness,—to the bidding of some heartless trafficker in human suffering. These things belong to the deadlier sins of our Profession, and to them I will not here further allude; for human passions, unbridled by the law, will continue the nuisance. Let us hope, however, nay, let us insist, when reform does come, that the best title a man can have to an hospital appointment shall be, not that he is a Fellow of this College, or a Licentiate of that, but that he is *best qualified* to hold the situation to which he aspires.

Gentlemen, I have nearly done. I have regarded John Hunter as the embodiment of the aims and hopes of our Profession. If I have not applied his actions and his life as closely to the illustration of the principles I have laid down as could have been wished, you must excuse me on the ground that my limited time would hardly permit me to adopt such a course. There are, however, traits in his character which we should all do well to imitate.

John Hunter was *a lover of truth* for its own sake. He sought to establish no preconceived views of his own; he went to Nature, and inquired there what were her facts,—what were her laws. He thus became a man of science, and by his science he was enabled to improve and advance the knowledge of the practice of his art. Do *we* love truth for its own sake? Are we seeking, by the aid of the microscope, the scalpel, the crucible, to clear up the many mysteries of life and organization, which still offer in our inquiries? If we are not,—if we are more bent on pocketing our guineas than advancing our Profession,—be assured the spirit of Hunter is none of ours, and that we have no place in that temple of fame where he sits an honoured guest.

John Hunter was *unwearied* in his pursuit of knowledge. Those hours which many of you devote to profitless talk, or still worse, he devoted to work. Every day had its task, and every hour its appropriate work. Thus, under his hand, arose the mighty monument of his industry, his Museum, and the still mightier monuments of his genius, his works, and, alas! his pillaged and burned manuscripts. To my junior friends, members of this College, I would say, imitate John Hunter in his work, and, though you fail to obtain a seat in our Council, you will not fail to sit with that great man in the much higher council of honoured public opinion.

Work is continued self-denial; and those who would work as John Hunter must deny themselves as he did. Would you work, you must give up the shams of life,—you must agree to have men regard you as you are. Your sacrifices must be sacrifices for truth, and your self-denial must be, not for appearances, for fine houses, carriages, and all sorts of comforts, but for the sake of doing good. We ought more constantly to remember, that the good and the true are indissolubly combined, and that both can only be attained by self-denial and work.

I might add many other reflections on his singleness of purpose, his hatred of humbug, his love of his country, his preference of honest industry to proud and arrogant indolence, his love of poor seekers of the truth, and his hatred of pompous pretension. In these and a hundred other things his life furnishes us with a constant rebuke. I feel that the character of John Hunter has never been done justice to in these orations, and, had time permitted, I certainly should have dwelt more largely on those traits so worthy of imitation, and which, if imitated, could not fail to produce at once a revolution in our conduct now, and a mighty change in our prospects for the future. But I forbear.

Gentlemen, I crave your forgiveness. I have spoken honestly, plainly—nay, I fear, bluntly—but I have spoken from my heart. I have not done so without pain, but my consciousness of integrity has supported me. I am not vain enough to suppose myself perfect; I therefore ask forgiveness of errors. You know whether I have spoken the truth or not. If truth has been spoken I know it is its property to produce fruits; and my prayer is, that what I have said to day may tend to awaken in you, and other members of our Profession who have honoured me with their presence, a sense of our high mission, and indirectly lead to an increasing public confidence in the talent and skill of the honourable practitioners of medicine, and, through the blessing of God, to a mitigation of human ills and an increase of human happiness.

LECTURES ON HISTOLOGY.

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS, LONDON.

By J. T. QUEKETT, Esq.,

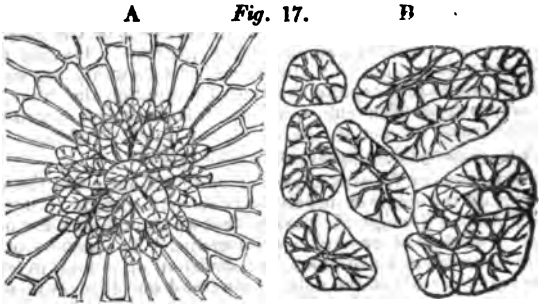
Assistant-Conservator of the Hunterian Museum.

[Continued from page 173.]

HARD TISSUES.

I shall now proceed to speak of another kind of deposit in cells, which goes by the name originally given it by Turpin, —Sclerogen; this always takes place in the interior of the cell, but rarely if ever completely fills it, a central cavity and certain radiating tubes or canaliculi being left as intervals in the deposit. In the Histological Catalogue you will find that all the principal examples of the deposit of sclerogen are classified and described under the name of Hard Tissues, by which they may be contrasted with bone and teeth, which form the hard tissues of animals. Those of you who are in the habit of eating pears will remember, that in the centre, and in the neighbourhood of the seeds, there is something which grates between the teeth; this is known to botanists as the gritty tissue, and consists of a number of cells aggregated together in small bundles, somewhat in the shape of a star, or a mass of large conglomerate raphides; these are very evident to the naked eye in the slice I now send round. When a thin section of pear is examined with a power of 90 diameters, as shown in *Fig.* 17, A, these stellate masses are readily seen amongst the cellular tissue; but when a higher power is employed,—as of 250 diameters,—and the cells have been slightly separated from each other by the aid of maceration or of boiling, as shown in *Fig.* 17,

A *Fig.* 17. B



B, you will see that each one exhibits a distinct central cavity with tubes radiating from it, and that the deposit, *i. e.*

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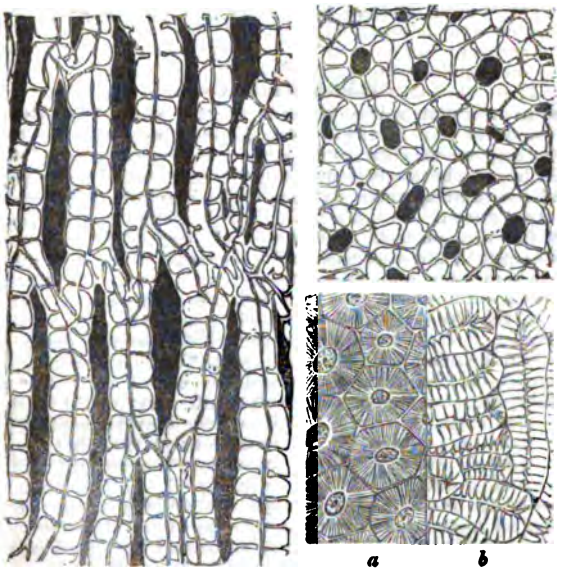
all the solid matter of the cell, is almost as clear and as transparent as that of some of the minerals, and also refracts light very strongly. This is the sclerogen of Turpin, and it is this same material that gives hardness to the stones of the plum, apricot, peach, &c., to the cocoa and coquilla nut, and which is so dense and white in the fruit of a palm, *Phytelephas macrocarpa*, as to have obtained for it the name of vegetable ivory.

Some of these structures are so hard as to be used in the arts for various purposes; here are two articles which have been turned, the one from the coquilla, the other from the ivory nut, both of these are very commonly employed for the handles of walkingsticks, and for the bandles and tips of umbrellas, as a substitute for true ivory. The coquilla nut is a species of cocoa nut, and full two centuries ago received the name of *Cocos lapidea* from its stony hardness. The ivory nut, when fresh imported into this country, is so soft as to be readily cut with a knife, and is of a milk-white colour, but it soon hardens, and, although so very dense, yet, when made sufficiently thin, will still exhibit its cellular character; it is composed of long oval cells, having large elongated central cavities, from which numerous canals radiate towards the margin of the cell, and at this point, as shown in *Fig.* 18, A, they are considerably dilated; it is curious to observe that the pores or canals in adjoining cells almost invariably correspond at their circumferential extremities, and yet they in no case meet or otherwise communicate, the intervening cell wall being always present, as seen in *Fig.* 18, A B. In this transverse section of the same nut, *Fig.* 18, B, you will see the size of the central cavity, and the pores coming off from it, as so many radii; their dilated ends are well shown, and so also the fact of their non-communication with adjoining pores, and the presence of the cell wall.

A *Fig.* 18. B

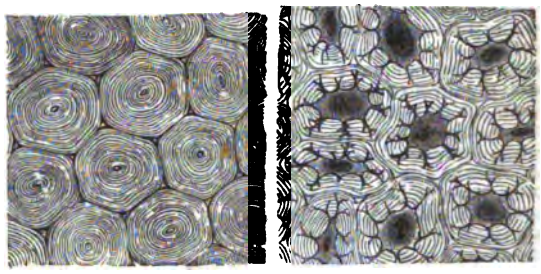


In the specimens I have now exhibited, the canaliculi and central cavities are filled with the fluid in which the preparations are mounted, but in this one, in which they contain air, the points above mentioned are more clearly shown, as both cavities and canaliculi are perfectly black, and they appear precisely like bone cells, the surrounding parts being transparent.

The outer coating or husk of the ivory nut is of a brown colour, and exhibits a structure quite different from that of the white interior. Some of the cells, as shown at *a* in *Fig.* 18, C, are of hexagonal figure when transversely divided, and consist of a small central cavity, with a very great number of minute equal-sized pores or canaliculi radiating from it towards the wall of the cell. In immediate connexion with these cells, as shown at *b*, are others divided longitudinally, in which the system of pores is well shown. A curious point in this section is, that cells appearing so truly different in structure should occur so close to each other, and that there should be no gradual transition from the one form to the other.

In the cells of some plants the deposit takes place in concentric layers. Here is a section of the snake wood, *Brosimum guianensis*, a wood not unfrequently used in the manufacture of bows for the archer. In it there are many large ligneous cells, in which the deposit has taken place in concentric laminæ, the pores running through them being small and few in number, and the central spot, although of very minute size, is occupied by a mass of rich brown resinous matter. These cells have been before described, and one of them is represented by D in *Fig.* 4; the same kind of tissue is found in the cones of the common fir, which consist of elongated cells, nearly full of deposit. Four of these have been represented by G in *Fig.* 4, when divided vertically, and a mass of the same in transverse section by H in the same figure. In the old ligneous cells in the bark of the beech, the concentric deposit is remarkably well seen; in these there is rarely any trace of pores. A series of cells exhibiting this form of deposit is shown in *Fig.* 19, A. There is, moreover, one curious kind of laminated deposit, combined with a branched condition of the pores or canals, that here requires notice; it is found in the seed of the star anise, and is represented in *Fig.* 19, B.

A *Fig.* 19. B



It is best seen in specimens mounted in Canada balsam, in which the central cavity and pores of the cell are full of air. The laminæ are well shown in sections of the cells; but the branching of the pores, which are very numerous, can be better studied when the outer surface of the cell is in focus, or when a thin layer of the cells is entire, *i. e.*, not injured in the preparation of the specimen.

A knowledge of these hard structures is often of considerable importance, much more so, indeed, than many are apt to imagine. The following is an example of the practical utility of such an acquaintance with minute structural anatomy:—About two years since, I received from a medical gentleman in the country some specimens mounted as microscopic objects that had been passed from the bowels by a lady. One of them I found to be the cuticle of a plant, and this turned out subsequently to be the cuticle of a gooseberry; the other puzzled me, but I made up my mind that it also was of vegetable origin, and that it was in all probability the testa of some seed; to this effect I wrote to my correspondent, but the patient denied having eaten any dried fruit for the space of twelve years, and the physician, believing the statement of his patient, considered that the microscopist was in error. I, however, still maintained my point, and, when preparing the series of specimens for the Histological Catalogue, known as hard tissues, I examined, among other things, the tamarind, and in the testa of the seed found the wished-for structure; and I subsequently learned that the patient was the daughter of a grocer, and no doubt had free access to the tamarind jar. This is given you as another instance of the value of the microscope to our Profession.

A portion of this specimen is represented in *Fig.* 20, A; it consists of a series of elongated cells like woody fibres, which exhibit pores on their margins; they occur in several laminæ, and the direction of the cells in one part of a lamina is often nearly at right angles to that in close proximity to it, and the entire testa is exceedingly tough, and no doubt very indigestible. Amongst my late brother's preparations I found a specimen of this tissue mounted in Canada balsam, but unfortunately he had omitted to name it.

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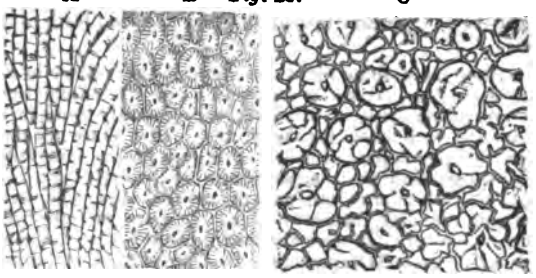
A B *Fig.* 20. C



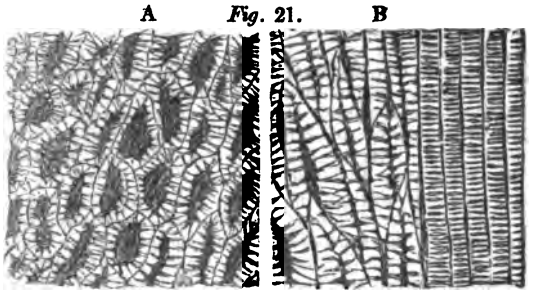
In the croton oil seed the cells are remarkable for their minute size, being much smaller than in any other plant I have yet examined; they, however, exhibit very well the central cavity and radiating pores; a portion of one of the seeds is represented in *Fig.* 20, B.

In some instances, as in certain of the Euphorbiaceous nuts, the sclerogen is of a brilliant crimson colour, and in this specimen, represented by *Fig.* 20, C, the cells are of a peculiar shape, having indented or wavy margins, and when light is transmitted through such objects, the red colour is so bright as to interfere with distinct vision. Each cell is nearly filled up with the crimson deposit.

In the walnut, cocoa, and hazel nut, the same kind of tissue is found; but in these, the pores, with their central cavities, resemble in a most striking manner the cells of bone; but, as I have so often stated in the former case, the cell wall always remains, forming a strong barrier between the ends of the pores of adjoining cells; and in the latter case, that of bone, the cell wall has disappeared, and the canaliculi anastomose.

In the specimen represented in *Fig.* 21, A, you have the cells, as seen in a transverse section of the shell of a cocoa nut, and at B, a horizontal section of the same shell, in which you not only see thickened cells, but close to them a part of a bundle of peculiar vessels somewhat like those occurring in ferns.

A *Fig.* 21. B

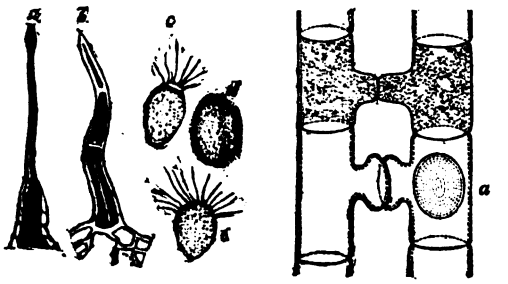


Spiral vessels have also occasionally been met with both in the shells of the walnut and hazel-nut.

These are the *chief* substances found as contents of cells; one or two, however, yet remain to be noticed, and these are of a peculiar nature.

Certain plants are provided with offensive weapons, some of which are known as stings, being (as in the nettle) elongated cells or hairs, which are developed from the cuticle, and are, generally speaking, of a conical figure; they contain a poisonous or irritating fluid, in which, in some cases, a cyclosis or circulation is visible. When examined with a power of 100 diameters, as represented by *a b* in *Fig* 22, A,

A *Fig.* 22. B



each hair is seen to have either a minute bulbous or triangular free extremity attached by a narrow neck to the apex of the shaft, the part connected with the cuticle is much expanded, and around its base are certain more or less polygonal cuticular cells. The contents of the hair are always in a state of tension, and when the hand is passed along the part of the leaf on which these stings are situated, the free extremity is rubbed off, the point of the sting perforates the skin, and, by the pressure of the cells at the base of the hair, the poisonous matter is forced into the wound, in a similar manner to the poison from the fang of a serpent.

We now arrive at the most highly-organised products of secretion of the vegetable cell, viz., those especially engaged in the development of future plants; they are called *Phytozoa*, or plant animals, being the representatives of the spermatozoa in the animal. They appear to have been first discovered by Mr. Cornelius Varley in 1833, in that part of the fructification of the *Chara Vulgaris* known as the globule; they have since been noticed by Meyen and Unger in mosses, and by Nägeli in ferns.

Mr. Varley's account of these bodies is so true to nature, that I may perhaps be permitted to read to you a short paragraph, taken from his paper in the second volume of the "Transactions of the Microscopical Society": —

"The ripe globule spontaneously opens. The filaments also expand, and separate into clusters. They are so numerous, that I have not been able to decide upon their exact number.

"The tube-like filaments are divided into numerous compartments, in which are produced the most extraordinary objects I have ever observed of vegetable origin. At first they are seen agitated and moving in their cells, where they are coiled up in their confined spaces, every cell having one. They gradually escape from their cells, by what means or through what opening I have not been able to ascertain, and the whole field soon appears filled with life. They are generally spirals of two or three coils, and never become straight, though their agitated motion alters their shape in some degree. They have at their foremost end a filament so fine as only to be seen by its motion, which is very rapid and vibratory, running along it in waves.

"These objects, although they have every appearance of life, swim about with no apparent consciousness of each other, or any choice of direction. Their filament end goes foremost; when they come into contact with each other they become entangled, and their motion is hindered. This does not cause any retreating action or attempt at separation, except by accident.

"They appear to be an example of life without self-will or choice. Their motions gradually slacken, and in about an hour they become perfectly still.

"If a globule be forcibly opened before it is ripe, the filaments will give no indication of life."

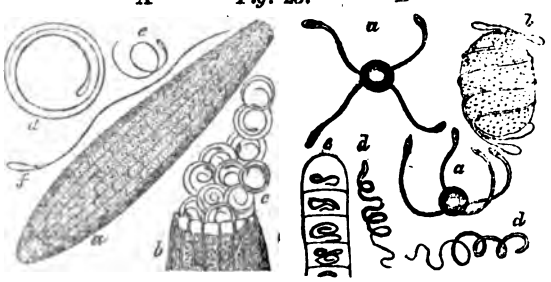
Unger has described them in Sphagnum as Infusoria, under the name of Spirillum; they have been the subject of great controversy, and Schleiden, denying their animal nature, has stated that they are nothing more than fibre in an early stage of development. From what I have been able to make out myself, I think that Schleiden's notion is decidedly erroneous, and that they are strictly analogous to the Spermatozoa.

In some of the lowest plants, as the Confervæ, an act, called by botanists *conjugation*, takes place. Two filaments lie side by side, and very speedily a nipple-shaped growth takes place from certain opposite points of the filaments; these touch and eventually communicate; one cell becomes empty, and in the other a spore is developed. This makes its escape from the parent cell, and swims about very actively by means of cilia attached to some part of its outer surface. In some species there is a pink spot in the centre of the spore, and such spores are no doubt not unfrequently described as Infusoria. The conjugation of a conferva is shown in *Fig.* 22, B, and at *a* is shown a spore in process of development. Spores provided with cilia are represented at *cc* and *d*, in *Fig.* 22, A.

If we examine mosses in the spring, viz., those of the genus Sphagnum and Polytrichum we shall find among the parts concerned in reproduction certain elongated bodies, termed Antheridia. If one of these be ruptured, a number of cells will make their escape, and, if this be done in water, in a few moments we may notice, with a power of 250 diameters, the rapid movement of a spiral filament, or phytozoon, in each cell. This filament has a globular head and a long tail,

Precisely like a spermatozoon. Sometimes the Phytozoa escape from the cell, and then their true form may be made out, and they will be found precisely of the shape exhibited in *Fig.* 23, A, where *a* represents one of the antheridia, *b* a

A *Fig.* 23. B



portion of the same ruptured, with numerous cells escaping. Each cell contains (as shown at *c* and *d*) a spiral filament, which, when detached from the cell, presents the appearance represented either by *e* or *f*. I regret that I cannot, at this season of the year, show you the actual phytozoa and their movements, but hope to do so before I finish the course. I can, however, show you some spores or seeds, from the fructification of our common equisetum or horse-tail. Each one, as shown at *aa*, in *Fig.* 23, B, consists of a central portion, or spore, with three or four globular-headed filaments attached to it, which are denominated *elaters*. In some states of the spore, as represented by *b* in Fig. 23, B, the elaters are found surrounding it in a spiral manner; in others, as at *aa*, they will be found standing out in straight lines from the spore; they are in this condition in the last object I sent round. But the most curious point connected with these elaters is the rapidity with which they embrace the spore when slightly breathed on. I will now show you some of these bodies lying on a glass uncovered; if the moisture of the breath fall upon them, they will immediately coil themselves around the spore, and almost as quickly resume their original position, and this will be repeated for a great many times in succession. It has been considered by some persons that the phytozoa are like the elaters, but that their motion is continuous; I hope, however, to be able to tell you more about these remarkable bodies on a future occasion.

CLINICAL LECTURES ON SURGERY,

AT

KING'S COLLEGE HOSPITAL.

By WM. FERGUSSON, Esq., F.R.S.

Gentlemen,—In my last clinical lecture I made some observations to you regarding the very remarkable case of aneurism by anastomosis, which is at present under my care. I told you then what I thought about doing, and you now have had the opportunity of seeing me adopt a practice which I hoped might be the means of removing the disease. I placed a ligature upon the superficial femoral artery a few days ago, in consequence of which the pulsation of the tumour in the foot has ceased, and become much diminished in size. But a curious change has happened. At several points in the leg below the knee the skin has taken on a peculiar mottled appearance; in fact, the whole of the integument, from the patella to the toes, is more or less discoloured. What the event may turn out, we cannot at present tell; but it is indicative of some imperfect or disordered condition of the circulation at least, if nothing more; but I fear we shall have to look forward to extensive mortification, for two of the toes have become decidedly attacked by it; their appearance, however, is quite different from the mottled state of the skin just alluded to, and it is yet to be hoped that mortification may only involve the toes, for the skin above is warm, and there has been less constitutional disturbance than we might have expected. There has been a great deal of pain in the extremity, dependent, probably, upon the irregular circulation in the limb. As far as the wound itself is concerned, matters are doing well; there was a slight oozing of blood on the fourth day, and my dresser, Mr. Edwards, tells me that there is a little appearance of it to-day. It is too early yet to expect secondary hæmorrhage, but we must nevertheless keep a watchful eye upon the case, for there is one sign which you must all have remarked, and which has existed since the operation. I refer to the strong pulsation there is at the seat of ligature; the artery beats with great violence, and it is so very distinct that the impulse communicated can be noticed from some distance. Now this great pulsation is not unfrequently observed in cases where secondary hæmorrhage has taken place, so we must look well after the patient, for fear it should occur; however, the pulsations in the artery are certainly not so strong now as they were the first few days after the operation was performed, consequently there is less risk of hæmorrhage than there was. If the ligature separates well, we shall lose anxiety as to the safety of the lad's life, but we shall have to wait for the separation of his toes, which have already become gangrenous; and, should the remainder of the limb which has the peculiar mottled appearance, become mortified, of course the case will be much more complicated. It is somewhat curious that mortification should have ensued in two cases now in the house, where the femoral artery was tied. You know that this result happened to the man in the same ward, who had his femoral artery tied by my colleague, Mr. Partridge. It is remarkable that it should often take place after this operation, and yet it is not by any means a frequent occurrence when the circulation has been obstructed in much larger vessels. For instance, I think that gangrene did not ensue in any one of the cases when the arteria innominata was tied, although some of the individuals lived a considerable time afterwards; nor do I recollect that it has resulted from tying so large a vessel as the common iliac; nevertheless, it is an event which will every now and then happen after placing a ligature upon the superficial femoral. Now, gentlemen, watch this case carefully. We will have to be very patient ourselves, for the treatment will probably extend over a long period of time; but much may be learned from it. I shall say no more on the subject at present, but shall refer to it from time to time in the course of my lectures to you in this theatre, and shall bring prominently before you, and discuss any striking or interesting feature which may present itself. We will, therefore, proceed to another matter of great interest to all of you.

During the time that most of you were out of town at the Christmas vacation, we had a case of hernia brought into the house, similar to one we had in only a few weeks ago. In both I performed an operation of a similar character and in a similar manner, and, I am happy to say, both patients have recovered; it will, therefore, be a good opportunity for me to address some observations to you in reference to some points connected with hernia. In each case the patient was a female, and in both the hernia was on the left side. It is a remark generally made, that hernia is more frequent on the *right* side than on the other; perhaps it may be so, and the reason may be, the greater muscularity on that side than on the left – certainly there is a greater development of parts on the right side. I just refer to this point now, as it has fallen to my lot lately to see a number of cases in which the protrusion was on the left; in fact, I have been astonished with the frequency of the occurrence of femoral hernia on the left side.

But now, with respect to the cases themselves. You will observe, that, on the 24th of December, the subject of the last case was brought into the house at an earlier date after the symptoms of strangulation had set in than it is usual to see them in hospitals; for, before hernia cases are sent in, a great deal of valuable time is generally lost; consequently, both patient and surgeon labour under great disadvantages, and there is probably great danger already connected with the case, and often little hope left for an operation to be successful. But in this instance, fortunately, we saw our patient within twenty-four hours; the symptoms were not urgent, although the tumour had been roughly handled by herself and husband, so I did not operate at once, as I generally do after failure of taxis, but waited till next day, when, finding other measures fail, and symptoms getting worse, I cut down and relieved the stricture. Now, those of you who saw me operate will recollect what mode I adopted: it is different from that generally put in force, and exactly similar to what you saw me do in the case of the woman successfully operated upon for femoral hernia a few weeks ago. I made a very small incision through the integuments by the neck of the

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hernial tumour, and dissected down until I came to the sac. The knife was then passed outside the sac, up to Gimbernat's ligament, when, this tissue being divided, the stricture was relieved, and the intestine returned without cutting the peritoneum, just as in the other case.

Now, this operation may be said practically to be of modern date. Twenty years since, (and even at the present period it is the case,) surgeons, when speaking about the operation for hernia, used to say to their pupils, that all the tissues must be cut through, the sac opened, the intestine examined, and the stricture cut; but this is not the doctrine now generally taught; surgeons are in the habit of discussing the propriety of not opening the sac. This proposal is old; Petit was the originator of it, and Monro Secundus advocated it; but it was little thought about or practised, until Mr. Key brought its merits prominently before the Profession; then later Mr. Luke, of the London Hospital, published his experience, which was very considerable. He had been mortified with the non-success of the old operation, and, turning his attention assiduously to the subject, it struck him that it would lessen the mortality very much if he did not lay open the hernial sac. He was pleased to find that this plan was so satisfactory; he has subsequently published an interesting memoir in the Medico-Chirurgical "Transactions;" and this subject has been brought into notice by two other gentlemen, who have written with great ability. Mr. Gay has published an interesting and able work on Femoral Hernia. Mr. Hancock has also given to the Profession an elaborate and learned treatise on Hernia; but the views of these gentlemen are quite different as regards the method of operating: the one (Mr. Gay) is a strenuous advocate of not opening the sac, whilst Mr. Hancock still advocates the ordinary custom of exposing the serous surfaces. We, however, have not as yet sufficient data from which we can be able to come to a definite conclusion. In my opinion, Petit's operation is good in a large number of cases, but I cannot consider it as applicable to all. I fear that those who have written on this matter have taken up extreme views, and I think it a pity that these extreme points should be discussed. It really is useless now to discuss the question as to whether this operation is or is not, in the abstract, a good one, and applicable to cases of hernia; that is now quite settled; the thing is, to consider and investigate particular circumstances connected with it. For the last ten years have I not unfrequently practised Petit's mode. I do not mean to boast of my success, but I confess it is not within my recollection at present of having regretted operating without opening the sac in one single instance It is true, patients have died; but then they have died from other causes, not from the operation; they, perhaps, had been suffering for days from strangulated hernia, and, through neglect on their part, and other causes, a most dangerous state has been induced. It seems to me that this plan has less hazard connected with it. True it is, the modern surgeon has less dread of wounding the peritoneum than his predecessors had; but still all must admit, that if an operation connected with the abdomen can be done without opening the peritoneum, so much the better and safer. However, there are difficulties in the way of this proceeding: by this means a hernia may be returned when it ought not to be; the intestine may be in an ulcerated or gangrenous condition, and, in such a case, it would be certain death to return it into the abdomen. But, in cases like this, there will not unfrequently be symptoms of such a condition, for, with a long existence of strangulation,—say for several days, there will be a soft state of the tumour, and a peculiar odour from the arts, besides the general constitutional signs indicating severe lesion or gangrene of the intestine. In such an instance, the surgeon would not hesitate to lay open the sac, and then act according to circumstances; he would at least avoid the dangers of returning parts into the abdomen which are so diseased as to be incapable of restoration to a healthy state.

Well now, gentlemen, both of these cases, as you have seen, are good instances of recovery after operation without opening the hernial sac; but you must not judge from these alone, or from half a dozen other cases, that this proceeding is absolutely the safest; for it is quite possible that they might have recovered as well had the sac been opened. The point is, not to come to rapid conclusions from a few cases respecting the merits of any particular proceeding in surgery, more especially such an one as this, but to judge from a more extended experience,—to weigh carefully the circumstances and peculiarities of individual cases, and to endeavour, by assiduous attention to symptoms during life, and to pathological phenomena after death, to ascertain to what particular cases this mode of procedure may be applicable. I have referred to the incision which I made in both of these cases. You will find in surgical works descriptions of various incisions, which are for the most part recommended to be made over the middle of the hernial tumour, the object of the surgeon being to get down to the sac near its centre, where it is more readily exposed. Mr. Gay, in the work before alluded to, has drawn attention to a new kind of incision in femoral hernia, which differs from all others in this respect; he recommends it to be made by the side of the neck of the sac, and to a somewhat limited extent. At first sight, it struck me that Mr. Gay was recommending a step of difficulty. I confess such was my feeling; but it is more rational to test any particular method than to form a prejudice against it. I adopted an incision somewhat the same, and of late have frequently performed this style of operation; instead of making free incisions as formerly, I resolved to try the plan of cutting by the side of the tumour. I have done the operation, before the appearance of Mr. Gay's work, by making an incision quite over the hernia, but Gimbernat's ligament was not so readily reached in this way; but by this little incision you need not meddle much with the textures over the sac, and it is astonishing to see how easily you can get at Gimbernat's ligament. I am certainly disposed to recommend the operation without opening the sac, and the small incision alluded to; but again, gentlemen, I feel it proper to state that you ought not hastily to decide which is the best method of operating. I have lately had two fatal cases in private, as well as two successful ones, but in not one of them do I think that death was due to the particular kind of operation. In an old lady of eighty-three, whom I operated upon in private, death followed: a *post-mortem* examination showed that the stricture was entirely relieved, and that the bowel was in that condition which could not recover itself at such an advanced period of life. In another instance, where I did not open the sac, death followed, and I had not an opportunity of seeing the *post-mortem*, but I felt satisfied that nothing was wrong as regards the sac.

Out of four cases, then, we have two successful, two not so. These cases make me state that, after all, we probably err in dwelling too much on the operation for hernia. We are apt to overlook the consideration of the disease itself; the question for the most part among surgeons is as to the success of operation. The question ought to be, what is the success of the treatment of hernia? The practice before operation is recommended for the sake of avoiding operation, and it is considered right to do everything before operating; but I believe this maxim, when carried out to its full extent, has done incalculable harm. Probably, in one case out of a hundred, it is not the operation which destroys the patient,—it is delay on the part of the patient, and obstinacy on that of the surgeon in endeavouring to avoid a very slight operative process. It is far better to operate early than to trifle by the various means which have been recommended to return a hernia; for when the absence or presence of strangulation is a matter of life and death to the patient, you must not look upon the operation in the light of danger, but rather as a means of avoiding the very dangerous results which will too surely happen if there be much procrastination. Of course, gentlemen, it is our duty to give a fair trial to the taxis, and to those measures which are likely to aid it; but pray do not delude yourselves with the idea that you are to do away with operation because now and then some extraordinary cases of reduction, under certain measures, have occurred. If this idea gains the ascendancy in your minds, you will be the means of destroying your patient. I hesitate not to say, that, after a fair trial has been given to the taxis, to adopt other measures which involve delay, such as the giving large doses of opium and so forth, is more dangerous than an operation. No one objects to the taxis when used moderately, and not for too long a period. Well, this comparatively modern process of operating without opening the sac must be looked upon as a modification of the taxis, and if by a little operation, as that recommended by Mr. Gay, the surgeon can return the hernia, it seems to me that, with this slight incision, the patient is in as little danger as if the taxis alone were used. Even by the taxis harm may be done. Ordinarily you give a pretty sharp squeeze, but, if the stricture is divided outside the sac, you probably use much less force. You should be careful in not employing too much force with the taxis; you may do a deal of mischief

—mischief, in fact, much greater than if the operation for dividing the stricture had been performed.

ORIGINAL COMMUNICATIONS.

ON THE TREATMENT OF DISTORTIONS.

ANGULAR PROJECTION OF THE SPINE, AND PARALYSIS.

By CHARLES VERRAL, M.R.C.S.,
Surgeon to the Hospital for Deformities, Portland-road, Portland-place, and Surgeon to the Sea-Bathing Infirmary at East Bourne.

I trust that the following case of successful treatment of paralysis, resulting from disease and distortion of the spinal column, may be deemed worthy of a place in your valuable Journal; and I am not a little strengthened in my hopes that you will accept it, from feeling that the case in question is one of a very severe class, which, either from the slow progress of recovery that attends the ordinary method of treatment, or from the constant demands that are made upon the time of the surgeon who undertakes their management, or possibly from the union of both causes, are but too often left neglected and unattended to, until restoration to health becomes hopeless, or at least rendered tedious and extremely doubtful.

Under these circumstances, I cannot help feeling, that considerable benefit may result to those thus afflicted from making such treatment known, as has proved itself to be so eminently successful, not only in the single instance cited below, but in upwards of 50 others which, in all the material points, have been subjected to a similar method.

Edward Hill, aged 11 years, 2, Wilmington-place, Bagnigge-wells-road, a thin, spare-looking boy, the child of strumous parents. The previous history of this case is contained in the following summary of the information which has been gathered from the boy himself, as well as from his mother;—Up to six years of age, the child was as healthy and vigorous as other children; but about five years ago he fell from a loft into the shop, and upon being picked up did not appear to have sustained any serious injury further than that occasioned by the fright and some superficial bruises; but in a short time the boy became weak and drooping; he lost flesh, and, from being very active, grew dull and spiritless, and greatly indisposed to motion. At this period no notice was taken of the spinal column; so that one cannot discover whether, at this early stage, the boy's ailment should have been attributed to derangement of this important part.

He became especially weak in one side, and this debility increasing, he was taken to St. Bartholomew's Hospital, admitted as an out patient, and ordered to attend twice a week. Tonic medicines were administered to him, and after the lapse of a few weeks he acquired a considerable augmentation of strength. Still, the mother says the lower limbs continued weak, and upon walking the boy was very liable to stumble if the ground were at all uneven. Upon washing him one day, she fancied that he had a small "growing out" upon the back, which gave him pain if it were compressed firmly. In this condition the boy continued until about August, 1849, when he appears to have been attacked with typhus fever; he was recovering from this attack, when, on going into the street to play one morning, he fell down, and was violently kicked on the back by a man who was passing by at the time. He told his mother of this circumstance; no notice was taken of it, however, until in a few days she found the child again beginning to droop and become weak, when she found that the projection in the back had got much larger. The decline of strength in the boy was now most rapid; in a few days he was compelled to take to his bed, and in a short time longer was not only unable to use the lower limbs, but had lost also all sensation in them, as well as partial motion and sensation in the upper extremities. The angular curvature of the spine was now very conspicuous, and caused the boy so much agony upon the slightest pressure, that the mother describes it as being quite fearful to move him. In this state he lay three months, gradually becoming weaker and more disabled. Early in December, the mother applied to this hospital for relief for her son; and, as he was in too delicate a state to be moved, the house-surgeon was directed to visit him and to report upon his case. He gives the following account of the boy's condition upon this his first visit. He found him lying in bed, pale and emaciated to the last degree, with a countenance expressive of the deepest suffering, and complaining of a burning and throbbing sensation in the situation of the projecting vertebræ. On making an examination of him, he found a very considerable angular curvature, involving the five or six upper dorsal, together with the two lower cervical vertebræ; the projection was sharp and prominent, and upon percussion it gave the boy the most intense pain. The lower extremities were completely paralysed, not only as regarded motion, but also sensation; incipient paralysis had attacked the arms, which were deadened in feeling, and moved with but difficulty; the legs, however, could not be described as motionless, for the most violent spasm of the muscles resulted from the slightest irritation applied to the soles of the feet, the calves of the legs, or over the popliteal regions; and so energetic was this involuntary action of the muscles, that portions of a tolerably thick bandage with which the parents had attempted to confine his limbs, was repeatedly snapped asunder. All control over the bladder and rectum was entirely lost, and the evacuations occurred without the boy's being conscious of the fact. His general health was greatly impaired, and from the want of rest, added to the constant weariness produced by the pain, he was almost reduced to a skeleton. Bed-sores were beginning to result from the long confinement to one position; and the inner parts of the thighs and nates were excoriated from the constant contact with the urine.

Upon the house-surgeon making his report of the case, much doubt existed in my own mind, as well as in that of my colleague, Mr. Hugman, as to the probability of our being enabled to rescue this poor boy from such an advanced stage of disease; but we were most willing and anxious to make a trial; so, giving him the recommendation of the Bishop of Chichester, we admitted him as an out-patient shortly after Christmas, 1849. In order to remove the disposition to excoriation which was exhibited upon the back, as well as for the purpose of being enabled to keep the boy in a state of perfect rest, and at the same time to employ active treatment to the seat of disease, as also from the many advantages which have resulted to similar cases from being placed upon the chest, we determined to make use of the prone couch, as first introduced to the notice of the Profession by my father, the late Dr. Verral. Much difficulty was experienced at the commencement, in attempting to change the patient's position; but steady perseverance, added to care and gentleness, soon overcame this difficulty, so that, in less than a week, we had the gratification of finding that the poor boy could lie the entire day, and even sleep at night, in his newly-assumed position. As soon as the necessity for moving the patient to the bed ceased to exist, and perfect rest could be insured, we commenced the employment of counter-irritation to the spine, and, by means of a succession of blisters, applied first to one and then to the other side of the projecting bones, decided symptoms of improvement began to manifest themselves. The general health, too, of the patient underwent the most satisfactory change; the countenance, from being pale, care-worn, emaciated, and expressive of deep suffering, now assumed a healthier hue, bespeaking an improved condition of the system generally; the eyes became bright and glistening; the pulse, from being small, quick, and jerking, was now fuller and more regular; and the bowels ceased to retain their usual torpidity, and now acted daily, though still without the patient's consciousness. The urine also, though still passed without the boy's knowledge, had nevertheless become subjected to a certain amount of control.

The counter-irritation was steadily persevered in, the constant employment of the prone position maintained, small doses of mercury were repeated occasionally, and cod-liver oil, in doses of one teaspoonful three times a day, was regularly administered. No unpleasant symptom occurred to retard the patient's recovery; he made daily progress; and his improved condition will best be gathered from the following note, which I have extracted from the hospital Case-book, dated March 7, 1850, little more than two months from the date of his first admission:—

"March 7th.—This case was visited yesterday, and found to be very much improved. The appearance of the boy's countenance has undergone a complete change, and no longer exhibits the ravages of his disease. The distortion of

the spine has considerably diminished in size, and has become very much less angular and prominent. The acute pain of which he originally complained has now almost subsided; the limbs still continue paralysed, but they give evident signs of returning sensibility. He says he can feel a kind of tingling, burning sensation in the legs; and thinks that he can, in a slight degree, control the spasm, which still occurs, though less frequently. He has also some knowledge of the feeling produced by the application of a highly heated or very cold substance to the legs. The limbs have become much more muscular than originally. As regards the upper extremities, they appear to be nearly restored to their perfect condition. To continue the same treatment, with the addition of friction to the upper and lower limbs."

In perusing the weekly entries that were made of this case, a uniform progress towards recovery is observed to have taken place, each week giving evidence of some additional point gained. Upon no occasion did he move from the prone couch, which was so contrived that his evacuations could pass away without the necessity of removing him. The counter-irritation over the seat of disease was unremittingly persevered in, either by the application of fresh blisters, or keeping the original ones open by using the cerat. sabinæ. Alterative doses of mercury were continued, and the cod-liver oil was gone on with as before; and, on the 19th of June, I find the following entry of his case in the hospital book, which I have considered worthy of quotation:—

"June 19.—This patient has, during the last two months, made very rapid progress, and it is only by reference to the accurate notes that were taken of his case, upon his admission, that one can well imagine what his former condition was. Perfect control is now exercised over the bladder and rectum, *the spasm in the muscles of the lower extremities has ceased to exist*, and voluntary motion has taken its place; the limbs can now be raised in obedience to the will, and so perfect is the recovery of sensation, that he can detect even the slightest touch. No pain is experienced in any portion of the spinal column, the deformed portion of which has become much less prominent, and, from being exceedingly angular, has now assumed an appearance of general rotundity, much less conspicuous than the original distortion. His general health is perfectly re-established; the appetite is good and uniform; the bowels act regularly; respiration, which was formerly difficult and impeded, is now easy and natural; the countenance is cheerful and joyous; and the whole frame is assuming a strong, muscular appearance. The mother says that she has now the greatest difficulty in keeping the boy lying down, and is often obliged to use coercive means to restrain him from attempting to walk or stand. To continue treatment as before, and to bathe the back and limbs in cold water, and by no means to permit him to move from the couch until permission be given." This improving condition continued, the boy gained strength, and it became impossible to keep him in the same position so constantly as formerly. Still he persevered pretty strictly in the regulations enjoined, and, upon my going to see him on the 27th of June, I found him still more improved than I had been led to imagine from perusing the entries in the hospital case-book. I examined the spine carefully, and found no trace of active disease remaining. The angle was much diminished; the limbs were become muscular and entirely under control; the urine and fæces could be retained at will; and the boy appeared comparatively well. Still he had never attempted to stand; but to-day, at his earnest solicitation, I determined to try him. So, placing my hand beneath the axilla, I bade him step from the couch to the floor, which he did, and, to my astonishment and gratification, walked across the room with but the slightest assistance on my part. I still told him to keep very closely to the recumbent position; at the same time giving him permission to have a pair of crutches, and with their aid to walk for ten minutes three or four times daily. For a short time, I believe, he kept within the prescribed period, but he very soon went far beyond it, and the use of the couch was soon superseded by that of the crutches. No marked evil resulted from this imprudence, however, though I believe he slightly retarded his recovery; still he continued to gain strength, and become gradually active; and on Tuesday, the 27th of August, he walked from his home to the hospital without his crutches—a distance of two miles, and this he has since continued to do once every fortnight for the purpose of being examined by myself and my colleague, and upon each occasion we have found his condition somewhat amended, without our discovering a symptom of returning disease.

Upon the 1st of October the boy was discharged perfectly cured, and quite as strong and active as most boys of his years. He never complains, is by no means a very bad figure, nor is it easy to discover that he has been subject to angular curvature of the spine, except by the fact of his being what is termed round-shouldered and short-necked.

With a view of corroborating the foregoing instance of success, I would refer to the cases of John Brett, 2, Chalton-street, New-road; Edward Seymour, 19, Harmood-street, Camden-town; Eliza Thatcher, now resident in the hospital; Eliza Gaskin and John West, 10, Sidney-street, King's-cross, all of whom have been very recently under my care.

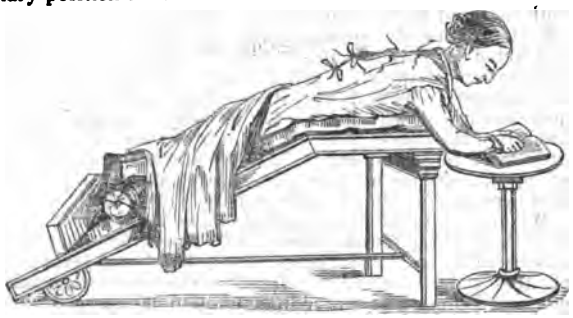
The principal objects worthy of remark in the above case, are the serious results that attend injuries and diseases of the spine. Here we have the case of a boy, strumous, delicate, living in a confined neighbourhood, and subjected to various causes that might predispose to a rachitic condition of the bones. He is playing in the street, and receives a blow in the back. No immediate consequences follow this; but in a few days he is found weak and languid; a short time longer and he loses his spirits, becomes dull, and indisposed to motion; slight pain is felt in the back, over or near the seat of injury; the legs tremble, and he can hardly stand upright; he stumbles over the least irregularity in the ground. These symptoms daily increase; the spine is not suspected to be the seat of mischief—he is supposed to have a violent cold, or some other transitory malady; and, to relieve him from this, he is placed in a warm bath, when it is generally discovered that he has a "lump upon the back;" a few days longer and we find him going to bed early and getting up late. At length he will not move from bed at all; the numbness in the limbs increases—they are cold and stiff; there is difficulty in retaining the urine; the bowels are torpid; the appetite is lost; restlessness and anxiety are felt, particularly towards night; he will not lie upon his back, and he cries out most bitterly if you accidentally strike the projecting vertebræ. All these symptoms go on from bad to worse, and, in the course of time, which may either be very short, as in this case; or, as in many others, much longer, the legs become entirely paralysed and useless, the urine dribbles away, and the fæces pass without the patient's consciousness; spasmodic action of the palsied limbs supervene, and the victim of the disease is usually found drawn up in bed, a martyr to the most violent cramps, the pain of which, however, he happily does not feel; the health gives way, respiration becomes difficult, the secretions are vitiated, and the patient lies huddled together unwilling, if not unable, to move.

What is the cause of all this? Doubtless it arises either from pressure upon the spinal cord, or some lurking inflammatory action at the roots of the spinal nerves; or it may be always, as it most certainly is in very many cases, the effect of these two causes together. It may be asked, What gives rise to this pressure? Owing to the very rare opportunities that occur of making a *post-mortem* examination while the patient is suffering from this active stage of the disease, it is not so easy to answer this question; but I believe that three causes may be given with pretty tolerable certainty—1st. From effusion within the theca vertebralis; 2nd. From pressure of pus upon the substance of the cord; and, 3rdly—and this, I believe, is the most general cause, certainly in the incipient stage—from extreme congestion in the spinal veins. Admitting that all or either of these three causes may give rise to the affection, it will readily be seen how they produce their results when they happen to be present.

Having said thus much of the effects and probable causes of the disease, it becomes necessary to add a few words respecting its treatment; and, first of all, I would venture to express my complete conviction of the great utility that is derived from placing the patient in the prone position; for, whilst it facilitates the free circulation of the blood in the spinal veins, it affords the best position for gaining ready access to the seat of disease, and it relieves from all pressure those parts that have suffered from a long confinement to bed. Moreover, the essential and all-important point of procuring a perfect state of quietude, is better obtained in the prone, than in any other position, since a simple contrivance permits of the natural evacuations passing away without the annoying and injurious consequences that so fre-

quently add additional misery to the patient whilst confined to bed, namely, the constantly saturated condition of his linen and bed-clothes.

Various pursuits, too, which serve to occupy the mind, and thus indirectly to do good, may be carried out with perhaps greater facility when the patient is confined to the posture indicated in the annexed sketch, than in the ordinary position assumed in bed.



Added to all this, every remedy that it may be deemed advisable to apply to the seat of disease can here be exhibited without the necessity of the slightest movement on the part of the patient: thus, for instance, counter-irritation of whatsoever nature can be employed, and its operation regulated to a greater nicety than could possibly be the case in a position, where continued pressure on the part which had been subjected to its action produced sloughing and other distressing consequences. I have dwelt at considerable length on this point, because I hold position to be of paramount importance, where it has to be steadily maintained, not only for a certain number of hours but weeks, and possibly even for months; and, consequently, I am induced to hope, that my giving my testimony to the efficacy of the prone position, as a valuable adjunct in the treatment of this disease, may procure for me an exemption from the charge of prolixity upon a subject which, however trivial it may be upon a superficial view, will rise immensely in importance the more calmly we consider how long it has to be endured, what we are to expect from it, and how much it is to facilitate the application of our other remedies, and possibly even assist in rendering them useful and efficacious.

Further, respecting the treatment I have very generally found the patient derive marked benefit from the employment of counter-irritation. I have also tried upon several occasions the effect of local depletion, either by means of cupping or leeches, but the results that have attended this practice have in no instance been such as to encourage me to return to their aid.

In the majority of cases, I believe that the effects produced by a repetition of blisters over the seat of disease, to be quite sufficient to bring about the desired improvement, without the necessity of having recourse to the more violent measures, such as seatons, issues, &c.; and I am pretty confident that the employment of the actual cautery—a practice that some have so strongly recommended—is entirely unnecessary, if not positively injurious to the patient. A narrow strip of the emp. lytta. applied close to the side of, but not upon the projecting spinous processes, first on one side and then on the other, will in nine cases out of every ten be all that is requisite in the way of local application. Should it be wished to increase the effects slightly, a blister on one or both sides may be kept open by dressing it with the cerat. sabinæ, or some analogous preparation. I have occasionally found benefit result from the employment of a strong preparation of iodine, either in the form of an ointment or a solution, painted or rubbed over the surface twice or thrice daily, until a slight degree of irritation has been produced. While some such local treatment as the foregoing is being adopted, I should recommend much attention to be bestowed upon the patient's general health. It not unfrequently happens that the liver is sluggish and the bowels torpid; if so, the recovery of the patient will be greatly promoted by giving doses of pilul. hydrarg.; or, in case of a greater degree of constipation, very good results will follow the careful and guarded use of small doses of the ol. tiglii. When these symptoms are removed, I have gained ground by steadily persevering in a course of potas. iodidi; but I think that there is no remedy more strongly deserving of trial, or one more universally productive of benefit than the cod-liver oil. I have rarely found a patient who could not take it; and I may say that I can scarcely recal an instance where it has been regularly taken in which it has not proved of the most eminent service.

The diet should be light and nutritious, but not stimulating, and all such things as are likely to disorder the stomach or digestive organs should be studiously avoided. A very restricted use of wine or beer should be enjoined, whilst spirits, of whatever kind, should be entirely prohibited. Though I cannot say that I have found any very palpable injury arise from the moderate use of wine or beer, still I do not hold them to be essential in the treatment of this disease.

The advocates of galvanism, as a cure for paralysis attendant upon angular curvature of the spine, have been numerous, and many of them most energetic in pleading its cause. Without at all calling into question the arguments or proofs that have, from time to time, been adduced in its favour, I can only say, that I have repeatedly made trial of it, but could never discover that I gained any important advantage from its use, still I would not entirely discard its services; I would rather say, that in a case resisting the more simple means of cure it should have its place in the category of remedies that it will then become incumbent upon us to call to our assistance.

The paralysed extremities should be kept warm, and, as nearly as possible, at the same temperature; and, for this purpose, a hot bottle at the feet will be useful. The patient, if a male, should not attempt to dress, but, being provided with a warm morning gown, he should have the lower half of the body covered with a blanket or quilt, as indicated in the foregoing sketch.

When the convulsive action of the limbs is very powerful, much attention should be paid to such things as will be likely to tranquillise them. I have, upon more than one occasion, seen the patient subjected to the most injudicious and painful process for obtaining their desired repose; and, when I say that it was having them fixed out quite straight upon the bed, and then secured by means of a bandage passed round them, it will readily be seen that it must have been as ineffectual as injurious, for the very irritation produced by the presence of the bandage is quite sufficient alone to excite to spasmodic action the palsied muscles in a tenfold degree; in addition to which, such a practice is very prone to produce excoriation of the parts thus compressed; and much difficulty will be experienced in getting such a sore to heal while the paralysed condition persists. Avoiding, therefore, everything that can tend to confine the limbs, I would advise an attendant, at the time that the legs are violently drawn up, to place her hands upon the patient's heels, and then very gently endeavour to get them into the extended position; and, if she does not exert too great a power, so as to induce resistance of the muscles, they will gradually become fatigued and yield most readily. At the same time, anything that might irritate the soles of the feet should be cautiously removed.

Friction to the palsied extremities will be found of the utmost service; it should be employed with considerable energy from the heels to the ischium, both upon the anterior and posterior parts of the limbs. Its good effects will be increased, and the possible contingency of excoriation averted, by using some slightly stimulating, yet oily embrocation; such, for instance, as equal parts of lin. sapon. co. and ol. camph. co., to which may be added a small quantity of tinct. opii. I have lately used as an embrocation, however, and decidedly with some amount of benefit, the cod-liver oil; which, in addition to the advantage of being of a very soft oleaginous nature, may possibly exert some remedial influence from being absorbed into the system. I will not insist upon this idea, however, since I much doubt if the absorbents are acting in their full tone and vigour, and its effects in this particular, therefore, will be diminished if not entirely annihilated.

When motion and sensation have been partly recovered, first passive and then active exercise should be resorted to, while the patient is in the recumbent position, either the prone or supine; at the same time the more active remedies, such as counter-irritation, friction, attention to the health, position, &c., should be rigorously persevered in, as formerly.

As recovery advances, the patient will be very pressing in

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his entreaties for permission to walk; but this should be withheld until such time as all pain or uneasiness in the diseased portion of the spine has entirely subsided, and until, also, perfect sensation has been recovered in the originally paralysed extremities.

When the permission to walk is given, it should be for a very short period, frequently repeated, rather than a long one, occurring only once or twice daily, and the use of crutches, as high as the patient can bear them, should be steadily persevered in, until all trace of the disease has become extinguished.

By bearing in mind the causes that give rise to this affection,—by attending diligently and unremittingly to the treatment here advocated,—by giving one remedy a fair trial before another is resorted to,—and by continuing them, even when the symptoms are fast disappearing, I believe that there will be found but few cases of angular curvature of the spine, accompanied by paralysis, that may not be speedily and effectually cured.

3, Weymouth-street, Portland-place.

CASE OF PARALYSIS OF THE RIGHT AND CHOREA OF THE LEFT SIDE.

By C. J. B. ALDIS, M.D.,

Fellow of the Royal College of Physicians, and Lecturer on Medicine at the Hunterian School.

A boy, aged 5, residing at 31, Rochester-street, Rochester-row, Westminster, is now in the Western Dispensary for irregular motions of the left arm and leg, with frequent protrusion of the tongue, which he occasionally bites. There is also paralysis of the right arm, with slight flexure, and of the right leg; loss of speech. The paralytic symptoms have existed two years, and succeeded a fit supervening upon scarlet fever. He was quite insensible, and received attendance from the above Dispensary. He recovered from the fit, which probably arose from effusion, causing pressure upon, or injury in, the left hemisphere of the brain, which has occasioned the paralysis of the right side.

The coincidence of paralysis and chorea, in the manner just described, is very rare; and the contrast between the loss of motion on one side, and constant agitation of the other, is very remarkable.

1, Chester-terrace, Chester-square.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

BY

HENRY SMITH, Esq., F.R.C.S.,

(Formerly House-Surgeon to the Hospital.)

AND

By LIONEL BEALE, Esq.,

House-Physician.

OPERATION FOR HERNIA.

The records of hospitals, both in London and in Paris, show that the number of deaths from hernia is very considerable, and that, in nearly all the cases which are reported as fatal, an operation has been performed by the surgeon for the relief of the strangulated intestine. The statistics which have from time to time been published by individual surgeons, have demonstrated the fact, that the mortality after this operation is something enormous; indeed, much more striking than in any other class of operations of equal frequency and magnitude; and this great number of deaths has not been confined to one hospital solely; but the same, or nearly the same, has been observed in other institutions as well; so it is evidently not the fault of the individual operators that comparatively so little success has followed their efforts to relieve their patients of a most formidable accident. It would only be wasting time to go over the causes which obtain in the production of so much mortality; they have been again and again enumerated by writers on this subject; and any one who has carefully watched the practice at any of the metropolitan hospitals for a length of time will be able to satisfy himself of the fact, that this great mortality is due to those causes which have already been efficiently pointed out; and that, however much improvement has been effected in the treatment of this disease, there is still room for much more, both on the part of the surgeon and the patient as well. And fortunately it is in the power of both to avoid those circumstances which tend to make this affection so very destructive to life; for the patient may be instructed in many instances when he has before been under observation, to apply for relief, and to use no procrastination as soon as he finds that strangulation has taken place; and the surgeon who looks into the subject must convince himself of the necessity of careful examination, of using but little force in attempting reduction, and in not delaying to adopt the extreme measure of resorting to the knife when that necessity is actually indicated.

We may, without exaggerating, make the assertion that, in at least three-fourths of the fatal cases which have been submitted to our observation, death has been due to the changes which have been induced in the intestine by long-continued constriction, or to inflammation of the peritoneum, which had been excited soon after strangulation had occurred, and could not be suppressed, notwithstanding relief had been afforded to the parts by operation. We can call to mind but few cases where peritonitis was set up by the surgeon's knife alone; but, on the other hand, in many instances where it had existed previous to operation, in an aggravated degree, it has gone on unchecked to a fatal termination, although its exciting cause has been removed.

The inflammation of the peritoneum has been by many supposed to be as much due to the wound made in this important texture by the surgeon's knife, during operation, as to other previously acting or concurrent causes; and it has been consequently considered by those parties, that the operation without opening the hernial sac would be likely to diminish the mortality of hernia. If peritonitis were the only cause of death after these operations, it cannot be denied that this particular method would be attended by hardly any fatal results; but, unfortunately, there are other causes which bring about death after operations for hernia; and Petit's operation will not only not obviate these, but it will place the patient in a more unfavourable condition for recovery than if the usual measure had been adopted. Thus it is that this mode of operating cannot be carried into effect in all cases, and thus, in the opinion of some, it should not be practised in any whatsoever. However, there are some very good surgeons in this metropolis, who operate in this manner whenever there appears to be a fitting case. The difficulty consists in selecting such; for a case may be met with, where the circumstances are such as to indicate that the operation without opening the sac may be very applicable to it; yet, on operating, it will be found that the surgeon cannot carry out his plan, or a *post-mortem* examination tells him that the intestine which had been strangulated was in such a condition as to forbid recovery, although there had been no symptom, previous to operation, of the gut being in a seriously diseased condition. Some cases of hernia, in which the operation without opening the sac has been performed, have lately occurred, of which we shall select three for report. The first case will illustrate the above remarks, in respect to the difficulty of diagnosing the condition of intestine.

Archibald Shannon, aged 64, was admitted into the hospital on October 30th, at six p.m., with a strangulated inguinal hernia in the right side. Whilst having his breakfast, at eight in the morning of the same day, he suddenly turned himself round, to reach something from a small table by his side. He felt great pain in the rupture, which was down at this time, and found that he could not return it as usual. The hernia had existed for twenty-one years, and he wore a truss for it, but was in the habit of taking the instrument off at night, and replacing it when he got up. He now made attempts to reduce the hernia, but, failing, he sent for a surgeon, who also applied the taxis unavailingly. The hernia, on admission, was large, hard, and painful. He had pain in the bowels of a severe nature, and vomited much. The usual means for reducing the hernia were tried unsuccessfully. Mr. Fergusson saw the patient at eleven, and had him placed under the influence of chloroform, and tried the taxis, but, as this failed, he immediately set about

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the operation. A small incision was made over the neck of the hernia, and the various tissues were divided, until the intercolumnar fibres were exposed; a director was placed under these, and an incision was made directly upwards; the stricture was immediately relieved without the sac being opened. There was a large quantity of intestine in the sac, and the opening into the abdomen was very capacious; consequently the intestine readily again descended as soon as pressure was remitted. Mr. Fergusson therefore pinched up a fold of the sac at its upper part, and passed two ligatures transversely through it, tying them tightly. The wound was dressed, and the patient put to bed. Very little bleeding occurred at the time of the operation.

At 3½ a.m. next morning, the house-surgeon was called up to the patient, who was bleeding very much from the wound, so that a large quantity had been lost; by means of ice and pressure it was checked. He was much exhausted by this, and was therefore ordered a little brandy.

At 1½ 30th, he was in a bad way; the symptoms did not appear to have been at all relieved; much pain in belly; vomiting of coffee-ground matter; bowels not been opened. Ordered calomel and opium. The symptoms rapidly increased, and the man died at 8¼ on the 31st, 33 hours after operation.

Post-mortem 5¼ hours after Death.—Much blood was effused into the subcutaneous cellular tissue of the scrotum, showing that it was a superficial vessel that had bled so much; the sac of the hernia was very large, the ligature had not created any inflammation in it; it contained a portion of the small intestine, which had descended into it again after the operation, but there was no stricture upon it. About three feet of the ilium altogether which had been constricted were in a very diseased condition; the greater part of it was of a deep chocolate colour, and here and there over a considerable space were the well-marked ashy-green spots indicating gangrene. There was no adhesion whatever between the sac and intestine; and the other organs of the body were sound.

Now, in this instance strangulation had only existed fifteen hours before the operation was performed; and, although there were symptoms of inflammation within the abdomen, such as in fact usually exist when strangulation has occurred for two or three days, nevertheless it was not suspected that after so short a period the gut would be in such a condition as to forbid recovery if returned into the abdomen; and, as it was found that the stricture could be easily divided without opening the sac, it was deemed most prudent not to wound the peritoneum.

It has been seen, however, that all the symptoms continued unabated, and this circumstance was sufficient to lead to the suspicion that the stricture had not been effectually relieved; but the examination after death revealed the fact, that, as far as the liberation of the strictured intestine, the operation was perfectly successful, and that the continuance of the symptoms and the rapidly fatal result was due to the greatly diseased condition of the gut. The case fully shows the difficulty of deciding as to what may be the state of the parts, even after only a few hours strangulation, and it illustrates at least one objection to the operation without opening the sac.

Mary Ross, aged 48, married, was admitted into the hospital, at 2 p.m. on the 26th November, with strangulated femoral hernia. On the evening previous, at 8, whilst sitting before the fire, she was suddenly seized with acute pain in lower part of belly. She sent for a surgeon, who gave her an emetic, and it made her very sick and increased the pain. At 11 on the morning of admission, she first noticed a swelling in the right groin, which soon became very tender. No attempts, however, were made at reduction. When Mr. Fergusson arrived, he had the patient placed under the influence of chloroform, and attempted to return the hernia, but finding it unyielding he at once proceeded to the operation. Making a very limited incision over the neck of the tumour, he divided the separate tissues over the sac, carried the knife upwards and inwards to Gimbernat's ligament, and liberated the stricture without interfering with the sac. The wound was dressed, and the patient put to bed.

27th.—Has no pain in abdomen; slept well during the night; bowels not open.

28th.—Doing well; bowels moved by injection.

December 7.—Patient discharged cured.

Lydia Boothby, aged 46, married, mother of eleven children, admitted into the hospital December 24th, with a strangulated femoral hernia on the left side. She has had a rupture for the last six years, and has worn a truss for the last twelve months. About 10 on the 23rd, was suddenly seized with vomiting and dragging pain at the stomach. The patient attempted to return the rupture, and was also assisted by her husband, and these efforts were continued more or less during the night. On admission she complained of severe pain of a dragging character at the stomach, and shooting pain across the abdomen; just before she came in she vomited fæcal matter. The tumour was about the size of an egg, and turned up over Poupart's ligament: it was hard and nodulated at the upper portion, but smooth and fluctuating at the lower. As the tumour could not be reduced by the taxis, Mr. Fergusson operated by making a small incision over the neck of the hernia, and, dissecting through the coverings, he freely divided the fibres of Gimbernat's ligament; but, finding he could not return the hernia, he slid the point of the knife close up to the neck of the sac, and, cutting in the direction of the ligament, divided some fibres which were constricting the neck of the sac, and between which and Gimbernat's ligament he had at first inserted the knife: the intestine was then returned with the greatest facility, the sac being untouched.

The symptoms were all relieved after the operation, and the patient went on favourably, and was in a short time dismissed cured.

These two cases which terminated so favourably illustrate the benefit of operating, if possible, without opening the sac, and it is evident that they were those to which this operation is especially applicable; in the one the hernia was quite recent, and no morbid changes could possibly have taken place which might render this method inadmissible, and in both strangulation had not existed for a very long period; consequently, it was not to be feared that the intestine was in a condition unfit to be returned into the abdomen. The second case was certainly not altogether so favourable, as the hernia had existed for some years; moreover, prolonged and violent efforts had been made by the patient and her husband to return the hernia; nevertheless, neither the one circumstance appeared to have been productive of those changes which take place between the sac and its contents, and which prevent the success of this mode of operation, nor did the latter seem to have had the effect of impairing the integrity of the intestine to a degree beyond the susceptibility of return to a healthy condition after the stricture was relieved. In either case operation was resorted to with but little delay, and no prolonged efforts were made to return the hernia by the taxis after admission into the hospital; and it must be evident to all who have seen many of these cases, that it is far better to operate at once, if a fair trial has been given to the taxis by a competent person, whilst the patient is under the influence of chloroform; it is certainly possible that more prolonged efforts by other parties may succeed with the taxis. We have ourselves seen an instance where, after one skilful hospital surgeon had fairly tried the taxis, and was preparing his instruments for operation, another one has succeeded in reducing the hernia, but this does not often happen where one efficient surgeon has made a careful attempt; and it is but little argument against delaying the operation, and resorting to repeated attempts at reduction; for, if it is in any way possible to return the intestine in this manner, it can always be done more readily, and we may say more safely, by simply making a small incision in the tissues, and dividing the stricture without opening the sac,—an operation without danger certainly in those cases where there is no adhesion between sac and intestine, and where the latter is in a sound condition.

Mr. Gay, in his excellent work on Femoral Hernia, has advocated a very limited incision of the superficial parts by the side of, and not over, the tumour itself, and the division of the stricture without opening the hernial sac,—a method which, in some cases, has certainly its advantages. It will be seen that Mr. Fergusson operates somewhat in this manner: his external incision is not much larger than Mr. Gay recommends, and, although he makes it over the neck of the hernia instead of by its side, he interferes with the tumour as little as possible. H. S.

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METROPOLITAN FREE HOSPITAL.

By JOHN L. MILTON, Esq., M.R.C.S.E.

ENCYSTED TUMOURS OF THE HEAD.

Encysted tumours, if not dangerous, yet occasion by their bulk such serious inconvenience, that their removal is as much a question of time as of propriety. To this they must come sooner or later; and, as nearly all methods short of excision have more frequently failed than otherwise, the fluctuating opinions formerly entertained by surgeons relative to attempting their removal by setons, injections, cauterization, &c., have only resulted in the fixed opinion, that in the present state of our knowledge the knife can alone be safely trusted to. Even here the operator is met by another difficulty, as in some cases the cyst has been said to have adhered so firmly to the skin that it was found very difficult or even impossible to remove the whole of it. This, however, the only guarantee of the tumour's not reappearing, may in most instances be attained by patience and dexterous dissection; and the following case will show that such a result is not unattainable even in old and large tumours.

Susan Melville, aged 50, short, small made, and thin, with dark hair and eyes, was admitted February 5, 1851, at the Metropolitan Free Hospital, under the care of Mr. Childs, with two large tumours at the back of the head. They had been present for ten or twelve years, and produced such great deformity, that we can only explain how the patient could have tolerated them so long, by supposing that poverty, and the necessity of her presence in her own household, rendered her anxious to avoid the confinement which the operation would require.

The larger of the two had the bulk of a large orange, but its form was somewhat oblong, and its base narrow; the other was nearly equal in size. She may at some future period require a second operation, as there seems on some parts of the head a strong disposition to similar developments.

Mr. Childs operated in this case by two longitudinal incisions, branching off below and diverging to the side, thus isolating a portion of skin, so that when the tumour was excised, a wound was left somewhat of the form of a capital L, admitting of the most accurate union of its edges and exact apposition to the parts below. The dissection was difficult, as they adhered firmly in some places; but Mr. Childs at last succeeded in removing the sacs uninjured.

Dr. Ramskill has kindly favoured us with the following full and accurate account of the pathological examination of their contents and structure:—

"On making a section of the first of the tumours, it was found full of a light brown, thin fluid, as if of serum, tinged with the colouring matter of decomposed blood. It became very slightly clouded on the application of heat and nitric acid, showing the presence of a small quantity of albumen.

"The lining membrane was fully organised, strongly resembling that of a serous structure, and to it adhered masses of a homogeneous, cheesy substance, situated, as if from the influence of gravity, most abundantly on that side of the tumour which in its original position had been the lowest.

"The second tumour on section exhibited the appearance of a suppurating cyst, being full of fluid the colour and appearance of 'laudable' pus.

"Under the microscope, however, but few pus globules were detected; the greater portion consisting of the unorganizable cheesy deposit before mentioned, held in suspension by the serum-like fluid.

"The lining membrane was also in parts somewhat softened, tumid, and more densely opaque; appearing as if some asthenic change in the vitality of the part had occurred prior to excision."

City of London Hospital for Consumption.—The Anniversary Festival of this Institution took place a few nights ago, when the subscriptions during the evening amounted to the large sum of 3,100*l*. It is expected that the whole amount of the building-fund will shortly be subscribed. The hospital, which is to be erected in Victoria-park, will contain 80 beds.

Chloroform.—A Bill has been introduced into the House of Lords by Lord Campbell for punishing those who use chloroform and other stupefying poisons criminally. The punishment for the first offence to be imprisonment, for the second transportation.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening, March 1.—Medical Society of London. *Election of Officers.* Seven o'Clock. Mr. White Cooper, "On a Case of Spontaneous Collapse of the Antrum." Eight o'Clock.

Royal Medical and Chirurgical Society. *Anniversary.* Four o'Clock.

Monday, March 3.—Entomological Society. Eight o'Clock.

Chemical Society. Eight o'Clock.

Epidemiological Society. Half-past Eight o'Clock.

Tuesday, March 4.—Pathological Society. Eight o'Clock.

Linnean Society of London. Eight o'Clock.

Horticultural Society. Three o'Clock.

Thursday, March 6.—Royal Society. Half-past Eight o'Clock.

Zoological Society. Three o'Clock.

Harveian Society. Eight o'Clock.

Friday, March 7.—Royal Institution. *Subject*:—Sir R. I. Murchison, "On the Changes of the Alps." Nine o'Clock.

Botanical Society of London. Eight o'Clock.

Western Medical and Surgical Society. Eight o'Clock.

Saturday, March 8.—Medical Society of London. *Anniversary.* Oration by Richard Rowland, M.D. At the Albion Hotel, Aldersgate-street. Five o'Clock.

Guy's Hospital Physical Society. Eight o'Clock.

Royal Botanic Society. Quarter to Four o'Clock.

THE MEDICAL TIMES.

SATURDAY, MARCH 1.

THE MEDICAL PROFESSION AND THE INCOME-TAX.

Whig or Tory, Conservative or Liberal, we have no interest, as Medical Journalists, in the political opinions of the party in office, but we cannot say that we are indifferent to the recent resignation of Her Majesty's Ministers. It is generally understood that Lord John Russell was afraid to encounter a debate on the Income-tax, and, to avoid defeat, retired from the contest. It is to be hoped that whomsoever may assume the Government, will feel that "discretion is the better part of valour," and place more reliance upon conciliation than on forcing, with a high hand, a measure repugnant to justice, and offensive to a large, intelligent, and influential class of the community.

The Medical Profession suffer with peculiar severity by the unequal pressure of this impost. Of all the taxes paid to local or national funds, none other is felt to be so galling, because none other is so unjust. We are sure that our brethren, like honest men and good citizens, are quite willing to bear their share of the public burdens; but we do not give them credit for a degree of apathy that would uncomplainingly submit to an infliction so oppressive. If our glorious Constitution must be propitiated, like other idols, with a bleeding victim, it is too bad that the selection should fall upon those who have least blood to spare, and least deserve the distinction. There is many a fatted calf that would far better become the altar.

The medical man works hard for a small income, and has reason to grumble if that amount be diminished by the rash projects, the exigency, or the greed of an undiscriminating and perverse Cabinet. There are hundreds of medical practitioners throughout the country, who are unable to

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earn more than two or three hundred pounds a-year, and upon this small income must maintain their families in respectability; educate their daughters like gentlewomen; prepare their sons, if possible, for professions; provide against the misfortune of sudden bereavement by assurance, and contribute to local charities; pay their guinea to some medical reform or debt-collecting office, and afterwards lose by bad debts almost half their income, from the ingratitude of those who think it no wrong to cheat a doctor, who, in their opinion, must be rich enough to afford it. Then, when rent is paid, and the poor's-rate becomes due, and church-rate, and water-rate, and assessed taxes, and the premium of assurance, and the druggist's bill, and the baker's, and the butcher's, and the corn-dealer's, and the schoolmaster's half-yearly account for Master William's board and education, and the music-master's, for Miss Emily's twelve lessons on the piano, to give her touch a finishing grace, which her persevering mamma, after all her tedious and praiseworthy efforts, failed to teach—when the miserable doctor has gone through this list of Midsummer bills, almost panting with dismay at his liabilities, and wondering whence the money will be got to defray them all, in comes the collector of the Income-tax, demanding, in the Queen's name, another levy of six or eight pounds, to help to pay, perchance, the salaries of the Lords of the Admiralty, or to make up the income of the Duke of Marlborough. This is the last ounce that breaks the camel's back. The patient animal has trudged his weary way, under a burning sun, parched and footsore, but still content, for he felt that, if his load were not increased, he might struggle on to the end of his journey. Labour is his lot, and he does not complain. But that last package has overcome him, and he pines over his fate all the more bitterly, because he sees around him other camels that bear their lofty heads proudly under light burdens, and because, too, his unpitying driver will not lift a finger to ease him of his load.

We owe some gratitude to the *Times* for the able manner in which it has advocated the claims of the professional orders for a modification of this tax. It has very lucidly set forth, from time to time, the principles upon which this impost should be levied. It has shown that an income of two or three hundred pounds a year, derived from the work of the mind, only obtainable so long as health shall allow or opportunity offer, is a very different subject for taxation, to an income acquired from real property, descending from generation to generation, and inalienable from the possessor by any deprivation of bodily or mental vigour. Real property is both a certain income and an untaxed assurance,—professional earnings, on the contrary, are an uncertain income, and are either taxed for the assurance, or the assurance is sacrificed for the income.

We have called attention to this subject to recommend our brethren, in all parts of the country, to petition against the re-imposition of the Income-tax in its present form, as a measure unjust in its principle, oppressive in its operation, and fallacious in its results. Not a day should be lost in placing before the new Government and the Legislature the indignant protest of the Medical Profession against the prolonged maintenance of an impost which presses upon them with so much severity. We have had taxes on bread, and still have taxes on air, and taxes on light; and whatever may be thought of these, no hard-working and intelligent General Practitioner can feel otherwise than indignant at a tax which is pre-eminently a tax upon *mind*,—upon intellectual activity and bodily health. We ought to resist it at once, or perhaps we shall never be able to shake it off.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The recurrence of the Ides of March was in former days, regarded with fear and apprehension. In modern times, such superstitious notions are unknown; at any rate, the approach of that eventful month appears to have produced little or no impression upon the managing authorities of the Royal Medical and Chirurgical Society. Last anniversary, it may be recollected, statements of no flattering kind were promulgated respecting the constitution of this learned corporation; while an effort, almost successful, was made by a numerous body of Fellows, to break up the objectionable method hitherto pursued of electing the executive. Unequivocal hints were then given, of the feelings extensively prevalent in the Society, regarding retiring officials nominating their successors. The marked monopoly of appointments by certain favoured parties; the uniform breeding in-and-in system too often adopted when filling up vacancies; and the consequent exclusion of individuals from any share in the management of this learned body, however deserving of such distinction—all were urged to show that reform was required. It was clearly proved that something must be wrong in an association where practices of this kind prevailed.

We by no means intend to speak disparagingly of individuals. Gentlemen in their corporate capacity, however, are fair subjects for criticism; and, as the annual meeting for the election of a new Council approaches, we consider it our duty, as medical censors, to say, unhesitatingly, that the house-list proposed by the retiring Council is highly objectionable, and ought to be rejected by the Fellows. Among the twenty-one names recommended for election, a majority have never contributed *one line* to the "Transactions" of the Society, and several have not taken any part whatever in the ordinary discussions; in fact, they have been dumb or sleeping partners of the concern. Again, among the new names selected to supply the vacancies, five have been members of Council, and four of these actually obtained that honour on more than one occasion. But the feature most deserving notice, in the official document which we publish among our medical news, is the circumstance, that three of the chief officers proposed are all from one hospital. This is truly too much of a good thing; and we sincerely hope the independent Fellows will mark their disapproval of such a monopolising procedure, by substituting one, if not two names, among the three recommended,—and that notwithstanding one of the parties alluded to is reported to have said, should his official colleague be rejected at the ballot, he will not serve with the opposition candidate. This *threat* (!) ought not to deter, but rather to stimulate the exertions of all those who object to dictation, from whatever quarter it may proceed. Considering the very small majority with which the house-list of councillors proposed last year was carried, and that in a very full house—to employ Parliamentary language—it would have been not only politic, but conciliatory and graceful, had the dominant authorities proposed as members of the future Council, at least one of the four gentlemen brought forward by the opposition at the last anniversary. Having only lost the election by a very few votes,—a result which would have been different but for the inattention of several Fellows who, although then in the room, did not tender their suffrage before the ballot-box was closed,—Dr. Basham's name should have been inserted as Medical Secretary, upon the same grounds as at the previous election. This seems the proper mode

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of proceeding; and if the electors will be united, while they thus act on public principles, irrespective of individuals, there cannot be any doubt of ultimate success, especially as some men of influence, who did not vote for Dr. Basham last March, will certainly do so on the present occasion. Other changes might be judiciously made in the house-list, but the above is essential; and without meaning anything disrespectful of Middlesex Hospital men, the Westminster, quite as much as the University or King's College, ought to be represented in the executive of the most eminent Medical Society in London.

To every independent Fellow, feeling an interest in this question, we say again, be up and doing. The cause is yours, not that of a journal. Now is the time to act energetically, or to be for ever quiescent. On former occasions, various speeches were made, and principles enunciated, to illustrate how the Medical and Chirurgical Society had previously been governed. Further talk is at present superfluous; since the great object of independent Fellows ought to be, to show by their votes that partiality and clique-ism shall no longer continue.

Efficient officers, who perform their duties with zeal and energy, yet courteously to all with whom they come in contact, greatly contribute to the prosperity of any Society, and promote harmony and good fellowship among its members. Now, although we disapprove of officials remaining too long members of the executive, knowing there are many candidates desirous of being placed on the Managing Council of the Royal Medical and Chirurgical Society, we, nevertheless, must express our sincere regret that so efficient a librarian and so courteous a gentleman as Dr. Hennen has retired from that office. Considering the great boon he has conferred upon the Society by so ably preparing the new Index to the "Transactions," it is much to be wished he had remained another year, to complete a catalogue of the books. However, the best thanks of every Fellow—*and something more*—are most eminently due for the task he has already accomplished; and whoever may be the new officials, we trust the Society may always have a librarian like Dr. Hennen, who may well be held up to all as a model for imitation. But as personalities only weaken good arguments, and are besides objectionable, we would conclude by saying to the Fellows, Select the best men, and indicate through the ballot-box, to be opened this afternoon from four to five o'clock, the most deserving.

CLINICAL INSTRUCTION.

We are happy to observe by the following announcement, which has been sent to all the English Metropolitan and Provincial Schools of Medicine, that the Court of Examiners of the Apothecaries' Society are vigorously following up their laudable intentions with respect to the study of Clinical Medicine. If the College of Surgeons of England were to adopt the same plan in respect to Clinical Surgery, the advantages to be derived from such a course would be incalculable, both to teachers and to students. The latter would derive their information from the only true source, namely, the actual observation of disease; while the labours of the former would be immensely facilitated by collecting the materials of their discourses from the records of cases instead of the doubtful and often conflicting authority of books. We do not, however, undervalue the importance of theoretical lectures. We entirely concur with the Court of Examiners in their regulation that *one course*, at least, on the Theory and Practice of Medicine should precede the Clinical course; but we repeat, what we have often stated before—that, under the present system, too much attention is paid to theory and too little to practice.

"The Court of Examiners of the Society of Apothecaries, having learned that considerable laxity has been evinced by students in their attendance upon those branches of practical hospital instruction which are included under the term Clinical Medicine, hereby request that the physicians of hospitals will secure such attendance in whatever manner they may deem most expedient, and that they will not fill up that portion of the schedule appropriated to Clinical Lectures except after a *bonâ fine* attendance.

"In those schools where a distinct Professorship of Clinical Medicine has been established, certificates of attendance on Clinical Lectures will be received in addition to, or in place of, the second course of the Theory and Practice of Medicine; but, where such attendance is received in place of the second course of the Theory and Practice of Medicine, the Clinical Lectures must be at least seventy-five in number, and must be attended during the second summer and third winter session.

"By order of the Court of Examiners,

"Henry Blatch, Secretary."

POISONOUS NATURE OF SCOTCH CHLOROFORM.

We caution our readers against the use of Scotch chloroform. Judging from the observations made by Mr. John Abraham, of Liverpool, and by Professor Christison, of Edinburgh, there cannot be any doubt whatever, that the chloroform prepared in Scotland, by Dr. Gregory's process, is most liable to decomposition, and will, as a matter of certainty, soon become loaded with free chlorine and muriatic acid, both of which are highly dangerous irritating bodies.

About twelve months ago, Dr. Gregory read a paper before the Royal Society of Edinburgh, in which he directed attention to the impurities met with in ordinary chloroform, lauded the properties of the Edinburgh article, and pointed out a method by which, according to the doctor's experience, English chloroform might be rendered absolutely pure. The process, which consists in the mixture of chloroform with strong sulphuric acid and its decantation therefrom, is so simple, that, in the words of Dr. Gregory, it "will enable any medical man to purify it for himself with the greatest facility." We need not discuss the unchemical principles involved in the process; it is sufficient to say, that the chloroform so purified does not keep; that it rapidly acquires deadly poisonous properties; and that much of it has been returned to the hands of the Scotch makers as being unfit for use. Several chemists have reported against it; and in the absence of Professor Gregory from Scotland, Dr. Christison has felt it to be his duty to make inquiry into the truth of their statements. To use his words, "the result is, that no less than three manufacturers in Edinburgh have tried the process on a considerable scale, and all have failed to obtain a permanent article. A chloroform of fine quality is obtained in the first instance; but it does not keep many days, and ere long it becomes so loaded with chlorine, that its vapours cannot be inhaled." This is rather a startling announcement after the prodigious puff which appeared in a late Number of *Chambers' Journal*, in which Dr. Gregory says, that "as no absolutely pure chloroform has yet been sold, so far as we can ascertain, by any maker out of Edinburgh, while the large majority of that its use should have proved less satisfactory, for example, in London than here." For fear, however, of its proving less unsatisfactory still, we advise our English friends to take care that they do not use the Scotch chloroform purified, as it is said to be, after Gregory's plan.

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REVIEW.

Letters on the Laws of Man's Nature and Development. By Henry George Atkinson, F.G.S., and Harriet Martineau. London. 1851. Pp. 390.

All the world knows that Miss Martineau is a great teacher. Her vocation is to put the world right on all points. Her comprehensive mind exposes the mystery of the flight of the Israelites from Egypt, and the shortcomings of Moses, with as much ease as the difficulties of British agriculture and the errors of the British farmer. From the domestic circumstances of Adam to the duties of a maid-of-all-work, there are few points on which she has not thought; and, whenever she *has* thought the world has known it. To the Martineau vision the world appears to be a dame's school, and Miss Harriet is the wise instructor of the infant mind. To those who have been accustomed to look upon Miss Martineau only in the light of an unwearied dispenser of her own wisdom, it must be a relief to find her on the present occasion in a new character. No longer a teacher, but a disciple, she rests humbly at the feet of a prophet whom she has discovered. Her novel duties certainly do sit a little awkwardly upon her, and occasionally she cannot avoid a recurrence of the old habit of giving instruction; but yet, in justice to her, we must say that she seldom directly ventures to differ from the declared opinions of her instructor, but receives his words of wisdom with an infant's docility and faith.

To confess that we are totally ignorant of the origin and reputation of the new prophet, is merely to say that we partake of the ignorance of the whole world. Mr. Henry George Atkinson has at present only one disciple, and, like the prophets of old, a great obscurity surrounds him. Whether he be of Manchester or of Liverpool we know not, and we must, therefore, be content to observe, that he has honoured the Geological Society by becoming one of its members. He proclaims the new revelation in a series of letters, signed simply H. G. A., which are in reply to some signed H. M. In several ways these letters are interesting to Medical men.

It will not be expected that in our limited and professional space we can give any detailed account of the sublime doctrines of H. G. A. To give some feeble notion of the chief novel articles of faith is all we can hope to do. And, first, we must admit that, as might have been expected, the dogmas of H. G. A. are often inconsistent with our present notions of scientific accuracy. Many assertions appear to us absolute mistakes, others are illogically twisted, others are as illogically cut short, so that their consequences do not appear. But in the history of the world it will be found that great teachers have often been at first so misunderstood, and if we indicate any (to us) apparently untenable scientific opinions of H. G. A., we shall only be doing what Mr. Atkinson must anticipate from this ignorant world, which has waited 6000 years for him to teach it.

H. M. thus places the subject on which she requires instruction before H. G. A.:—

"I want you to tell me," says she, "with great particularity, how you would have one set about the study of the powers of man, in order to understand his nature, and his place, business, and pleasure in the universe."—P. 1.

"Will you indicate to me what you conceive to be the powers of living beings, and trace them to their origin in the brain? or, will you lay open the brain before me first, and follow abroad the resulting mental actions"?—P. 15.

Our readers will anticipate the first proposition of H. G. A., in commencing his reply to the above comprehensive questions:—

"All the systems of the whole world are wrong. I have nothing to say to any but that we must turn aside and begin afresh from the beginning."—P. 9—10.

Rather a severe speech, by the way, to make to H. M., who has been the world's schoolmistress, but which she receives with her usual gratitude, and the remark, that though some might pronounce it presumptuous, "it only shows H. G. A. to have gone a step further than other people."

H. G. A. having thus cleared away the incumbrances and impediments which the race of man has, since its creation, reared about the true faith, plunges at once into the heart of his own system. Here, however, we are astonished to find many old friends done up and *revived* (as the tailors say when they doctor worn-out clothes), but still our well known though not much esteemed acquaintances. With the old systems, which are altogether wrong, H. G. A. dismisses the notion of a Great First Cause; of a moral government, and its necessary corollary—a future state; of a superintending governor, and of a spiritual life. In the place of these popular superstitions, the products of a "universal insanity," he proclaims a material universe metamorphosing itself in virtue of a necessary and immutable law, and influencing by these changes the actions of men, which have been so foolishly deemed to be in some measure under their own guidance and will. Man cannot be anything but what he is, and therefore is not responsible for his actions; his notion of a future state "is merely a pampered habit of mind, founded upon the instinct of preservation; it is a longing, and those who have it are like drinkers or children."—P. 185.

The ancients had a proverb, that the oracles of Delphi were "dark sayings." The difficulty of knowing what they meant did not, however, lessen the reverence of the Greeks. In the same spirit, we may repeat Mr. Atkinson's oracular sentences to ourselves, and attempt to divine their sense. What, we may say, is meant by an "eternal omnipresent law"? What is the meaning of the word "law" at all? Why cannot "we perceive the workman in the work"? How can we help the inevitable induction of a cause from an effect? Why, does not design prove forethought and a deliberative adaptation? Does man never experience any struggle between two courses of action, when his moral sense points to one and his sense of immediate selfish benefit to the other, and either of which he feels himself free to take? Why, when he *knows* that he may be governed by his good or his bad principles, should he not deserve either reward or punishment?

But enough of these topics, which are not suited for our pages, and let us pass on to consider some of the minor portions of the new philosophy. It might be ignorantly supposed that our prophet is not a man of much faith; that his philosophy is merely a sort of general negation of all facts which are most firmly held by the ignorant world. But this is quite erroneous. Mr. Atkinson rejects indeed Creation, Revelation, and Providential Guidance, but he receives with enthusiasm, Mesmerism, Phrenology, and Homœopathy. He rejects with contempt the "mechanic God" of Paley, yet receives as indisputable, Mr. Crosse's wonderful experiments of forming acari out of flint. He sees that, in the so-called miraculous narratives, ("old wives' fables, far too silly for a nursery tale,") if we make "a reasonable deduction for exaggeration," all is understood; yet he inserts with approval M. Cayotte's prophecy of the execution of Louis XVI., which Alexandre Dumas uses with such effect in his novel of "Le Collier de la Reine." H. G. A., therefore, is a man of enlarged faith.

As all systems are wrong, Phrenology, of course, has to be reformed to some extent. The lucid sight of H. G. A.'s clairvoyant patients has pointed out several new faculties, which we recommend to Dr. Elliotson's consideration, who must have been rather shortsighted in this matter to have overlooked them. We may only remark, that that faculty which H. G. A. describes as the one inducing "reverence, awe, respect," and whose highest object is "a sense of the infinite and abstract power," must be neutralised, in his case, by the adjoining faculty, which "induces a sense of power, and makes men fancy they are equal to anything."

In mesmerism H. G. A. proposes nothing new, simply because it is really impossible to go further in this direction. He even seems puzzled, all-knowing as he is, with some of his knowledge. "There are cases," says he, "of two persons in the trance conversing with each other at a distance. Can they both be in each place at the same time?" To this interesting query he gives no answer. Surely a man to whom "prophecy, *clairvoyance*, healing by touch, visions, dreams, revelations, and the delusion of believing themselves divinely inspired," are "simple matters in nature," should be competent to solve this little enigma.

We cannot allow ourselves to speak of Mr. Atkinson's opinions respecting Christianity. It is not our province to do so; and a befitting refutation of them would demand a [illegible] before us. The following passages will show sufficiently Mr. Atkinson's application of his new philosophy in this direction.

"*Christ's case seems to me as clear as daylight*"—P. 216. "Christ was constitutionally a clairvoyant."—P. 212. "He lia-

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tened to the voice within him, as somnambulists do."—P. 212. "He believed he was divinely inspired, a missionary, a prophet, the child of God; and out of this other delusions arose, as in all similar cases, and the carpenter's son, *like the boy Davis in America, astonishes men with his learning.*"—P. 212.

Mr. Atkinson thus finds Christianity a development of Mesmerism. We cannot congratulate him on any similar mesmeric effect. In him the practice of mesmerism has not produced anything in the remotest degree resembling Christianity. It is true he ventures on a kind of parallel between himself and the Divine personage alluded to; but we confess we can trace no resemblance.

"On one occasion Christ felt the virtue going out of him. At the time when I was worn with mesmerising night and day, and very sensitive, I experienced this repeatedly."—P. 215.

We trust most sincerely no one received the virtue Mr. Atkinson lost, or that, if it did not return to him, it is at any rate concentrated in Miss Martineau. In any other person its reception would, we should think, be attended with constant nausea, and a feeling of light-headedness, which would make the unfortunate patient rather a disagreeable member of society.

We do not wish to speak lightly on such a subject; but any other mode of dealing with it, in our pages, would be superfluous. Such weak profanity as Mr. Atkinson's, demands no reply from us but an expression of unmitigated ridicule and contempt.

We should mention, however, this doctrine of H. G. A.'s finds little favour with H. M., who looks upon the life of Christ as a myth, or legend, although she admits that, if there was such a person, the mesmeric interpretation would be the true one. However, she quite agrees otherwise with her wise monitor. She writes to him in the following strain, after receiving a letter, in which is an extraordinary jumble of all sorts of things:—

"I do not like to say anything, after your last letter; I do not like to touch it, or the state of mind it produces in me. What an emancipation it is, to have escaped from the little enclosure of dogma; far, indeed, from being wise [what unexpected humility!], but free to learn."—P. 282.

Let us leave Miss Martineau and her teacher standing outside the "little enclosure of dogma," while we indicate very briefly some few points which H. G. A. has left in obscurity, probably for his disciples to clear up. First, then, are we to suppose, that the abandonment by Matteuci of the theory of "induced contraction" is unknown to him, or are we to suppose that the later experiments of Matteuci are by virtue of the clairvoyant power of H. G. A., known to be erroneous? Secondly, will he explain what he means by this:—

"A watch put in the mouth is not heard to tick until the teeth are closed upon it. I close my ears with my fingers, so that I cannot hear the slightest sound, but the moment I touch my forehead upon the watch, I hear the ticking distinctly. Yes, I am aware that sound is received by other channels than the ear."—P. 135.

Does the wise man know that it is commonly believed that the ear still receives the sound in these cases, although the vibrations are transmitted through the solid parts of the head, instead of impinging at once on the membrana tympani? Thirdly, will he be so kind as to enter further into the position, that "space and time are fundamental to all other ideas."—P. 145. Fourthly, if he will explain this sentence: "Identity is a matter of memory, or an individualizing of the sequence," we will thank him; and, fifthly,—but no, we cannot go on; our space and patience are alike exhausted, and we have hardly room for a concluding sentence.

We have noticed this book because it is the culminating point of the false and absurd superstitions (we can use no better word) which disgrace the science of our time. Nothing can exceed the ignorance, the utter want of logic and reasoning, of Mr. Atkinson, except his hardihood and presumption. And it seems a judgment upon such men, that, while the most incontrovertible evidence of things sacred and divine, produces no effect upon them, they receive with fatal facility the ridiculous marvels of mesmerism, homœopathy, palmistry, and the like. But this only proves that the feebleness of mind which leads to the rejection of great truths, is precisely that which tends to the reception of as great errors.

We will call to the attention of Mr. Atkinson, the next time he attempts to fathom heaven with his boy's plummet line, the following sentence, which is contained in a book recommended by that Church which Miss Martineau thinks is "to fly away like an old witch on a broomstick," and which, therefore, he will probably despise. But we can assure him, that if he compares it with his favourite authors, he will find that it is profounder than Bacon, and more subtle than Spinoza, and more eloquent than Plato. It is called the Wisdom of Solomon, and has the following passage:—

"AND HARDLY DO WE GUESS ARIGHT AT THINGS THAT ARE UPON EARTH, AND WITH LABOUR DO WE FIND OUT THE THINGS THAT ARE BEFORE US; BUT THE THINGS THAT ARE IN HEAVEN, WHO HATH SEARCHED OUT?"

SELECTIONS FROM FOREIGN JOURNALS.

TUMOUR OF THE RECTUM, CONTAINING PORTIONS OF A FŒTUS,

EXTRACTED FROM A CHILD SIX YEARS OLD.

BY M. BOUCHACOURT,
Head Surgeon to the Hospital of La Charité, Lyons.

CATHARINE SERY, a girl 5½ years of age, after having suffered from several disorders connected with the digestive organs, passed a large quantity of purulent matter from the anus. The discharge continued for seven months; the child fell away, and the excretion of fæces became more and more difficult.

About a fortnight after the first discharge of purulent matter, that is near the end of August, 1849, a long lock of auburn-coloured hair was passed from the anus; it bore great resemblance to that of the little patient. About the end of March, 1850, the purulent discharge ceased, and nothing unusual was noticed until the 17th April, when some blood was passed from the anus; the child now suffered from constant tenesmus. As the efforts increased a tumour presented itself at the orifice of the anus, disappearing again when the strain ceased. The patient was now admitted into hospital, under the care of M. Bouchacourt.

On examining the rectum it was found that the tumour extended some way into the gut, adhering to the posterior wall only at its upper part. The tumour was soft at some points, hard at others, smooth and partly covered with hair. Its nature thus became manifest at once; it was resolved that we should extirpate it, and nature assisted us, for after a long walk the tumour protruded almost entirely from the rectum. A careful examination now showed that the root or pedicle of the tumour did not contain any vessels, and that no portion of the intestinal canal was connected with it. Extirpation was therefore easily effected by means of a double ligature and the scissors. A few drops of blood only escaped, and the child was well in a few days.

The tumour was an irregularly oval mass, weighing 2½ oz., covered with fine white skin, exactly like that of a new-born child. On one end were some hairs, and on the other a fine down. On making a very careful examination a transverse fissure was discovered close to one of the ends, and on a tubercle attached to the lower lip of the fissure were two teeth, a canine and molar one. On a similar tubercle of the upper lip was an incisor tooth, placed transversely. On dividing the body of the tumour the first object which presented itself was a round bone, imbedded in fibro-fatty matter. This bone supported a number of teeth and some capsules. Beneath this bone was another small one of irregular shape, the nature of which it was impossible to determine. It might be a rudimental rib or vertebra. Finally the lower portion of the trunk was represented by a cartilaginous mass of the size and shape of a small nut.—*Bulletin de l'Institut.*

M. BERNARD ON THE ABSORPTION OF ALIMENTS.

The following is the substance of a memoir recently presented to the Academy of Sciences, by M. Bernard, on the absorption of alimentary substances by the chyle vessels.

All alimentary substances are reduced in the intestinal canal to three principal matters, viz., saccharine, albuminus, and fatty emulsion.

Absorption of Sugar by the Chyle Vessels.—On ad-

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ministering large quantities of cane sugar to the mammalia, M. Bernard has always found that substance in the blood of the vena portæ, whereas, the chyle of the thoracic duct contained no trace of that substance. The author hence concludes, that sugar is exclusively absorbed from the digestive canal by the system of the vena portæ, and that saccharine substances traverse the liver before they reach the lungs.

In thus traversing the liver, saccharine substances undergo an important transformation. If a solution of two or three scruples of cane sugar be injected into the superficial veins of a dog; this substance, instead of being assimilated, is excreted with the urine in a few minutes. But, if the sugar be thrown into one of the branches of the vena portæ, and be thus forced to traverse the liver, it is no longer eliminated, but assimilated and combined with the blood, just as occurs after normal digestion. We may conclude from this that absorption by the system of the vena portæ is a necessary condition for the assimilation of sugar.

Absorption of Albumen.—When a weak solution of albumen from the egg is thrown into the jugular vein of a dog or rabbit, the urine becomes albuminous some time afterwards. M. Bernard considers that this shows a difference between the albumen of the egg and the albumen of the blood; and that the former requires to be modified before it can become incorporated with the living body. The modification takes place in the liver; for, when the albumen from an egg is injected into the vena portæ, it remains in the blood, and is not eliminated by the kidneys. These experiments tend to prove that albuminous matters are absorbed exclusively by the vena portæ; they likewise show that cane sugar is subject to the same law, and that both can only be assimilated by undergoing the influence of the liver.

Absorption of Fat.—In a former memoir, M. Bernard demonstrated that fatty matters require to be converted into an emulsion by the pancreatic juice before they can be absorbed, whereas albuminous and saccharine substances may be absorbed in the stomach. We might hence, *à priori*, conclude, that fatty matters do not require to pass through the liver, and this is the case. Still, however, it is certain, that fatty matters are sometimes absorbed by the branches of the vena portæ, as well as by the chyle vessels.—*Bulletin de l'Acad.*

ABSENCE OF THE VAGINA—IMPERFORATION OF THE UTERUS—SUCCESSFUL OPERATION—IMPREGNATION—DELIVERY—DEATH.

Cases of complete absence of the vagina are rare, and still more rare are records of operations performed for the cure of this malformation. In 1835, M. Amussat published a very remarkable case. The following one, for which we are indebted to M. Debrou, of the Hôtel-Dieu at Orleans, is perhaps the only other instance in which complete atresia of the vagina gave rise to operation. It is, at all events, the only recorded case followed by pregnancy and delivery; for in that of M. Amussat, although both Marjolin and Magendie were of opinion that the patient should never marry, she subsequently became a wife, but never pregnant.

A young female, nineteen years of age, had enjoyed good health up to the age of seventeen, when she experienced the first symptoms of menstruation. No discharge, however, appeared, and she continued to suffer severely at each monthly period, up to the age of nineteen. The pains now became intolerable, and a tumour was developed in the abdomen. On examining this latter, it was evident that the tumour arose from distension of the uterus, while another tumour, of the size of an egg and round, occupied the right side of the abdomen. This was probably the ovary. The external organs of generation were well formed, but the vagina was completely wanting, a firm substance, about three to four lines in thickness, separating the rectum from the bladder.

An operation was decided on, and performed on the 22nd February, 1847. The operator divided with a bistoury the firm substance supplying the place of the vagina. By cautious incisions, he arrived at a depth of a couple of inches, when a solid body was felt at the bottom of the wound. The nail and the end of a grooved canula were now employed to lacerate the tissues with care, and the resisting body was at length exposed at about two and a half inches from the external orifice. It was impossible, however, either with the finger or probe, to find any trace of an os uteri; the operator merely conceived that he felt some slighter resistance at a certain point of the body, which he took for the neck of the uterus. It was resolved to perforate the body at this point. A narrow bistoury, partly enveloped in lint, was passed along the finger, and an incision made with it, as with a trocar. A small quantity of blood appeared. A female catheter was next passed into the opening, but only a small quantity of blood issued. The incision was therefore enlarged transversely with a blunt-pointed bistoury, and an opening of five to six lines obtained, through which a great quantity of dark half-coagulated blood was discharged. The point of the index-finger now easily passed through the artificial opening into the cavity of the uterus, the walls of which were found to be extremely thin. Great relief ensued on the discharge of the blood, and the uterus was further cleaned out by three emollient injections. A long pledget of lint was now passed into the artificial os uteri, and the vagina well plugged to prevent re-union. Considerable reaction, with some symptoms of peritonitis, set in, but was subdued by blood-letting.

On the 3rd day after the operation, an elastic catheter, No. 8, was substituted for the pledget of lint, and allowed to remain permanently in the uterus; its use was continued for thirty-five days. On the 26th of April, notwithstanding the constant use of plugs, it became necessary to divide a circular bridle, which had been formed at about the depth of an inch in the vagina, and threatened to produce a new obstruction. Finally, on the 3rd May, the menstrual flux appeared for the first time, and continued for three days in a natural manner.

From this period up to the commencement of June, the vagina was carefully plugged every day either with lint or prepared sponge; but the orifice of the uterus became again closed, for the menses were suppressed after the month of June, and did not re-appear. The original accidents now recurred, and a second operation became necessary in March, 1848. A fresh incision was therefore made in the direction of the os uteri, and enlarged with a probe-pointed bistoury. Only a small quantity of blood issued. There was no fever, and the patient was able to leave her bed on the fourth day. Emollient injections were frequently thrown into the cavity of the uterus, and a rectum bougie placed in the artificial os. On the 20th May, the catamenia appeared, and thence-forward continued natural. The object of the operation was thus fully attained.

Nine months afterwards, in December, 1848, the patient consulted Dr. Debrou on the question of marriage. He gave an evasive opinion, and advised her to wait; but she was married in February, 1849, and became pregnant immediately afterwards.

On the 2nd November, 1849, at 5 a.m., the first symptoms of labour set in. After the lapse of a few hours, the uterine orifice was dilated to about the size of a shilling. Being firm and resisting, M. Debrou thought it prudent to make a few lateral incisions with a bistoury. Little progress, however, was made, and two more incisions were practised. The patient, who had been debilitated by a previous attack of cholerine, now complained of weakness, and at 6 p.m. was seized with convulsions, which recurred in a quarter of an hour. The forceps was immediately employed, and the child extracted in a few minutes, without any other accident than a slight laceration of the perinæum.

On the 4th November, some symptoms of peritonitis appeared; they were relieved for a couple of days, but recurred with violence, and the woman died on the tenth day after delivery.

The above remarkable case illustrates two points, upon which the best authorities have been accustomed to speak in a very decided manner. Dupuytren, Boyer, Capuron, and others, always insisted on the impropriety of operating in cases of imperforate vagina, where the os uteri was at the same time imperforate. Dupuytren, in particular, affirms, "that the metritis which invariably ensues on the evacuation of the uterus, is rapidly and certainly fatal." But the present case, that of M. Amussat, and two other cases which occurred in Belgium, in the year 1835, show that the illustrious professor of the Hôtel-Dieu here advances an opinion opposed to facts. The second point relates to the propriety of permitting a woman to become a wife after an operation such as has been described above. The great majority of practitioners have decided in the negative; but rather on theoretical grounds than from the result of experience. M.

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Debrou's case, it is true, proved fatal; yet nothing in the history of the delivery proves that it was necessarily so. The artificial os uteri dilated slowly, and this circumstance probably favoured the attack of convulsions; but, on the other hand, the woman was delivered within thirteen hours, and the fatal termination does not seem to bear any necessary connexion to the previous operation.—*Gaz. Médicale.*

DEEP-SEATED INFLAMMATION OF THE CORNEA.

This affection, when treated in the ordinary manner, almost always produces loss of sight. Superficial keratitis, on the other hand, is often relieved and cured by scarifying or cauterising the enlarged vessels. M. Tavignot proposes to apply the same principles of treatment to the deep-seated or interstitial variety. For this purpose he employs a common cataract needle to divide the inflamed vessels in the substance of the cornea. The point selected is the circumference of the cornea, and the vessels are divided to the extent of about three millimetres. The surface of the needle should be directed obliquely, so as not to perforate the cornea. The following case illustrates the benefit of the new practice.

A man, 52 years of age, was affected with interstitial keratitis. On examination, it was evident that the vascular zone was fed by four principal trunks. These were accordingly divided with the needle. Some of the vessels required to be divided several times, and the treatment lasted a month. There was no reaction or other accident. The patient was seen seven months afterwards, when the cornea was found perfectly clear and all the vessels obliterated.—*Bul. de l'Académie.*

MORTALITY OF THE FRENCH ARMY.

From official documents, it appears that the mortality in the French home army has been,

For 1842	24·6	in 1000
1843	20·4	"
1844	15·6	"
1845	14·8	"
1846	17·6	"
1847	19·1	"
1848	21·3	"

In the male civil population, the mortality between the ages of 20 and 30 is from 10 to 12 per 1000.

In Algiers, the mortality among the troops is about 70 per 1000. The deaths from wounds in battle form an insignificant item. These official documents prove that in the famous battle of Isly, which was worth a dukedom to Marshal Bugeaud, only 27 men were killed.

GENERAL CORRESPONDENCE.

DR. GREGORY IN REPLY TO DR. KNOX.

[To the Editor of the Medical Times.]

SIR,—The question at issue between myself and Dr. Knox is now ripe for judgment. Both parties have been heard at the bar of public opinion. My opponent has had (thanks to your kindness) a great advantage over me. An unknown friend, the "Inquisitor," fearful that the good cause should suffer by delay, has volunteered the duty of *judge*, and has summed up with a favourable bias towards my opponent. This advantage I willingly concede to Dr. Knox, and respectfully leave to the readers of the *Medical Times* the arduous duties of jury. They will decide between us. They will say, whether the sentence foreshadowed by Dr. Knox (in return, I suppose, for my venturing to hint at Strangford Gaol) is to be mine or not. Compared with such a punishment, that of Tantalus was a trifle. He, like me, to be sure was to remain in a stream; but in his case the waters merely refused to quench his physical thirst. I again am destined, according to Dr. Knox, to *"row for ever against the stream of knowledge, disconsolately and vainly awaiting the reflux of the tide,"* while he and his *fidus* Achates, the "Inquisitor," with wind and tide in their favour, are hurrying onwards to scientific perfection!

So long as Dr. Knox's criticisms on my views of vaccine protection were confined to the pages of the *London Journal of Medicine*, I did not offer any observations on them. But when they assumed an independent existence, and challenged the notice of reviewers, the time was arrived either to defend myself against the charge of "inconsequential reasoning," or to cry "peccavi." The same circumstances induce me now to offer some observations on Dr. Knox's opinions concerning vaccination. His pamphlet is attractive in form and substance; he writes with considerable knowledge of the subject; and errors, put forward in such guise, may, if uncorrected, pass for truth. I am anxious, too, to show what are the fruits of that broad and unreserved doctrine of "Identity," for which Dr. Knox still manfully contends, and which he still avows to be the polar star of vaccine pathology!

1. Dr. Knox, at page 14 of his pamphlet, puts forward the following statement:—"Although cow-pock is considered rather a vesicular than a pustular malady, the vesicle becomes turbid towards the close, *and actually secretes genuine pus. Such is the usual progress of the genuine cow-pock.*" With great deference, I venture to question the accuracy of this statement. During the many years that I have been engaged in the practice of vaccination, it has not happened to me to meet with this as the *normal* character of cow-pock. I have always believed and taught, that one of the essential differences between cow-pock and inoculated small-pox is to be found in the invariable tendency to pustulation which the latter exhibits, and the truly vesicular character of cow-pock, even when the areola is extensive. I need hardly add, that if I saw *genuine* cow-pox secreting *genuine pus*, I should very soon become a convert to Dr. Knox's theory of identity; but, as I do not see the fact, I may be excused for demurring to the theory founded on it.

2. In page 15, Dr. Knox acknowledges that "there is a peculiar vesicular disorder affecting the horse, which is capable of communicating the cow-pock either to the cow, or directly to man. Of this equine form of the disease, or *pfordemarke*, Professor Hering adduces two instances, exhibiting all the characters of perfect identity with the vaccine malady." I do not bring this forward as an erroneous statement; far otherwise. It is quite correct; but I adduce it for the special edification of your correspondent, the "Inquisitor,"—the volunteer supporter of Dr. Knox, who, on the authority of Mr. Youatt, denies that the matter of equine grease possesses any such property, but who carefully forbears to tell us that another disease of the horse (whatever be its English name) does possess that remarkable character! This little matter I leave to "Inquisitor" and Dr. Knox to settle between them during the voyage.

3. In page 17, we read that "the variolæ vaccinæ have prevailed, as in the year 1825, among cows, in as severe and fatal a form as the small-pox in man." Dr. Knox adds, "It must be admitted, however, that *in general (!) the character of the malady has been rendered infinitely milder by its transmission through the cow.*" I profess my utter inability to understand this passage. I should like to be informed more accurately of the localities where these severe epizootics occurred. If Dr. Knox alludes to the cases at Moorshedabad, he ought to be aware how much doubt hangs around those cases. But further, what is meant by the words, "*its* transmission *through* the cow?" Does Dr. Knox mean to intimate that these severe forms of cow-pock are transmitted from man to the cow? This, indeed, would be identity!

4. In pages 19 and 20, Dr. Knox draws up, in a tabular form, the diagnostic marks of natural small-pox, inoculated small-pox, and vaccine small-pox. He thus gives the character of inoculated small-pox:—"Usually mild. No primary fever. Minute *papulæ* on the third day. Generally few in number, and sometimes confined to the puncture or its locality." He then notices the accession of areola on the *ninth* or *tenth* day, of fever about the eighth day, and adds, "no secondary fever." It is not probable that Dr. Knox has seen many cases of inoculated small-pox, and, therefore, small inaccuracies might be overlooked; but here all is inaccurate. The papula is as much confined to the locality of the puncture here as in cow-pock. The pustular character displays itself as early as the seventh day. Secondary papulæ are developed on the eighth day, and it sometimes happens that these are confluent over the whole body. In such cases you may have secondary fever, nor does the disease then differ in any respect from the ordinary march of natural or casual variola. It is obvious to any one who casts his eye over the table, that the author was anxious to assimilate the course of cow-pox, as nearly as possible, to that of inoculated small-pox. If Dr. Knox had seen one-tenth as many cases of inoculated small-pox as he has of cow-pox his Table would have presented a very different aspect.

5. In page 31 Dr. Knox states, that the deterioration of vaccine lymph, in its progress from one individual to another, is a *mere hypothesis*. M. Bousquet can tell a very different story. That able vaccinator showed to me at Paris, in 1839, drawings of the progress of two varieties of cow-pock on the child's arm,—of the old *deteriorated* lymph which had been in use since the beginning of the century and of that which was renovated by passing the vaccine

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lymph again through the body of the cow. The difference was most striking, and if Dr. Knox should chance to visit Paris, he would soon alter his views as to the "*hypothesis of deterioration*." In page 44, Dr. Knox recurs to the question of retrovaccination; and remarks, that "even if this deterioration were admitted as a fact, it does not appear *how* the process (of retrovaccination) could restore its efficacy," and because he cannot understand *how* it is done, Dr. Knox distrusts the fact altogether. His words are: "To us it appears that the retrovaccine lymph would just be possessed of the same qualities, and be neither better nor worse for its retransmission through the cow." The answer to all this is, that the experiments performed in Paris in 1836 distinctly proved that the lymph *was* improved most materially in all its characters.

6. In page 46, Dr. Knox, when treating of the actual results of vaccination as a preventative of small-pox, presents his readers with a table of the deaths by small-pox in the British army between 1817 and 1836. The result is certainly most striking. Only twenty deaths are recorded as having occurred by small-pox in the British army in those twenty years—one in each year. But fourteen years have elapsed since those tables were drawn up, and it is rather singular that Dr. Knox, writing in 1850, gives us no more recent facts. Yet they are easily to be had, and, as Dr. Knox is about to present some additional observations to the readers of the *London Journal of Medicine*, he will probably like to avail himself of that opportunity of continuing the Table. He will, I will venture to assure him, receive every possible attention if he will address a line to the Superintendent-General of the Medical Department of the Army, 13, St. James's-place, London, requesting such a continuation.

7. The last criticism which I shall offer on Dr. Knox's pamphlet, is on a passage at page 52, where he remarks, that "four-fifths of all the deaths caused by small-pox in some of the largest towns in Great Britain occurred in the first five years of life;" and this fact, he says, "militates *strongly* against the belief that the protecting effects of cow-pock wear out by lapse of time."

Dr Knox forgets, or perhaps is not aware, that the deaths by small-pox, under five years of age, occur *almost exclusively* among the unvaccinated. Death by small-pox in a vaccinated person under *ten* years of age is so rare, that it may be safely left out of consideration altogether. The inquiry to which Dr. Knox would do well still to address himself is, as to the *amount* or quantity of small-pox prevailing amongst the *adult* portion of the population,—among those who, vaccinated in infancy, have passed their fifteenth year. Dr. Knox acknowledges, at page 56, (when condensing the substance of his paper,) that "small-pox has prevailed of late years to an increased extent," but he fails in explaining in what class of persons it has so increased. He refers (page 56) to a "*temporary tendency to increased diffusion at distant and uncertain periods of time which characterises all epidemic diseases*," but he fails to show why this tendency has gone on steadily increasing since 1825 until, in 1850, it reached that point which induced Dr. Knox to write a pamphlet on the subject.

I have many apologies to offer for occupying so large a portion of your columns, and promise that, in this respect, I will no longer offend. I am, &c., GEORGE GREGORY, M.D.

No. 6, Camden-square.

METROPOLITAN CONVALESCENT INSTITUTION.

[To the Editor of the Medical Times.]

SIR,—In justice to the real founders of that admirable Institution, THE CONVALESCENT HOSPITAL, allow me to correct an error in your leading article last week. I can lay claim to no share whatever of the honour of founding this charity; indeed, it was founded before I came to reside in London, viz., in the spring of the year 1840. I believe the gentlemen who first conceived the idea of the Institution, and took the initiative in its establishment, were:—The late Mr. Theodore Monro, (son of Dr. Monro,) then a pupil of St. Bartholomew's Hospital; Mr. Mortimer, the bookseller; and Dr. Bell, of George-street, Hanover-square; together with two other friends of Mr. Monro, viz., Mr. W. T. Lucas and Mr. J. T. Ware; now, with Dr. Bell, medical officers of the Institution.

In disclaiming any participation in the great honour of being one of its founders, I gladly avow that I have, for many years, felt a warm interest in the success of the Convalescent Hospital, as I regard it, both in principle and practice, as second to no other medical charity in existence. It is, however, as you truly remark, much too little known, both by the Profession and the public.

I wish I had not to contradict another of your statements in the article referred to, viz., that "a new hospital is in course of erection;" though, I am happy to say, that your announcement errs only in being somewhat premature. Lord Ellesmere has certainly presented the Institution with a noble site, near Weybridge, Surrey, and the plans of the new building are all prepared and ready for being put in hand, so soon as a sufficient fund is raised. This, however, is not yet the case, though, I am happy to say, the considerable sum already subscribed is gradually gaining important accessions. So much, however, is still wanting, that all the friends of the charity feel it to be their duty to lose no opportunity of calling the attention of the Profession and the public to the circumstance. As a friend of the Institution, I beg to thank you for the very handsome and able manner in which you have advocated its cause and set forth its claims. I am, &c.,

12, Old Burlington-street. JOHN FORBES.

CALCULUS REMOVED BY DILATATION OF THE URETHRA.

[To the Editor of the Medical Times.]

SIR,—Should you deem the following case worthy a place in your valuable Journal, will you kindly insert it.

Georgiana Bingham, a little girl, aged three years, was brought to my house, apparently in the last stage of atrophy; she had been under medical treatment for some time without any benefit; she suffered from a prolapsed state of the rectum, constant desire to make water, could scarcely get any sleep, and the right eye completely turned from straining. Suspecting stone, I sounded, and found one of considerable size; proceeded, with the assistance of my son, to remove it by dilatation; commenced with a warm hip bath, then with several bougies, and, having dilated the urethra sufficiently to introduce one of Fergusson's three-bladed dilaters, grasped the stone with the forceps; but, unfortunately, it broke, therefore only a portion was brought away; reintroduced the forceps, and brought away another piece; the child was now very much exhausted from crying, so had her placed in bed, after I had injected the bladder with warm water. She went on well for six days, when stoppage again came on; proceeded as before, and this time brought away a much larger piece. From this period she went on well; and at the end of a fortnight gave her some preparation of iron. The child is now perfectly restored, and is getting fat, the bladder having regained its functions, and she full command of the urine. Weight of the stone removed 6 drs. 20 grs.

I am, &c., R. DAVEY.

Walmer, Kent.

EXTENSIVE LATENT DISEASE.

[To the Editor of the Medical Times.]

SIR,—I beg to send you the following case, considering it interesting, as an example of what a large amount of disease may exist in a child without its presenting any appearance thereof to superficial observers, and how life may endure under what are generally considered most fatal affections for what must have been a lengthened period.

On Friday, Jan. 24, I was called to see a child at 24, Silver-street, Golden-square, whom the messenger described as having been suddenly taken ill, and that it looked so strange, they did not know what was the matter with it. On going directly, I found the child dead, yet looking so little like death as to cause me to make some efforts for its restoration. On a minute external examination, I found nothing which could lead me to assign any cause for dissolution. The account I received from the mother and nurse was, that it had sucked heartily about ten minutes before; that the nurse had taken it in her arms, a slight cough (to which it had been subject, as well as a wheezing at the chest, for about a month or two, generally coming on two or three times a day, but some days not at all,) had then come on, a crowing respiration was made, the lips turned purple, it stretched itself out, and in a second was a corpse. It had been apparently perfectly well all day, playful and laughing, and, indeed, beyond the slight wheezing, was considered an unusually healthy child. The *post-mortem* examination, on Monday, disclosed the following appearances:—The body was very fat, well-formed, and large for a child but nine months old. On opening the chest, the lungs were found collapsed, and but slightly congested, the pericardium forming quite a prominence in front of the collapsed lungs, which were otherwise healthy. The bronchi of the left lung were bathed in thin mucus, as also the trachea. The lining membrane was thickened in parts, and inflamed. The pericardium was distended with an immense quantity of serum, and the left ventricle of the heart enormously hypertrophied; the veins on which were as large as a goose-quill. The brain was found

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very much congested, very large, and exceedingly soft, breaking down to the slightest touch. On raising out the cerebellum, the whole of the under part was bathed in serum, which appeared to flow from the spinal canal; the quantity of fluid amounted to about a teacupful. The lateral ventricles were also much distended and full of serum. The liver was large and congested, but the stomach and intestines were healthy. That a child with such an amount of disease should be in apparently robust health, caused the greatest surprise to two medical men who assisted me, as well as to myself. I believe the immediate cause of death was, as I gave it at the coroner's inquest, a spasm of the glottis, which impeded the respiration. A large quantity of blood was impelled into the brain, the pressure of which (it needed very little,) combined with the large quantity of serum on the medulla oblongata, caused instant death,—a termination perhaps assisted by the quantity of fluid in the pericardium, which was evidence of, and perhaps increased, the capillary obstruction in that organ.—I am, &c.,

HENRY HARDINGE, M.D., M.R.C.S.

Silver-street, Golden-square.

SELF-SUPPORTING DISPENSARIES.

[To the Editor of the Medical Times.]

SIR,—In your number for Feb. 15, your correspondents request information as to the operation of self-supporting dispensaries. This neighbourhood, so notorious for Anti-poor-law and Chartist agitation, is no less noted for its Boards of Health, irregular practice, and unqualified practitioners. It may be interesting to relate the origin and progress of these Institutions, so derogatory to professional respectability, and detrimental to the public.

In 1839 and 1840 I was president of a Medical Association, which included nearly every qualified practitioner residing within four miles of Ashton. We agreed on a scale of charges for visits, medicines, consultations, operations, &c., to discourage irregular practice, and to meet no practitioner who did not hold a qualification from some recognised Board of Examiners. Very soon a report was circulated, that the object of the Association was to raise charges, not to equalize them; and a committee was formed of innkeepers, shopkeepers, &c., who, in a spirit of opposition to the Profession, canvassed for subscribers to the proposed Board of Health, to *supersede the resident practitioners*. They succeeded in obtaining 4000 or 5000 subscribers, took extensive premises, got a stock of drugs, &c, and engaged a stranger as medical officer, at a salary. There was no stipulation as to the ability of the subscribers to pay for ordinary attendance; all persons were admitted, innkeepers, shopkeepers, butchers, overlookers of mills, getting 2*l.* or 3*l.* a week; spinners, getting 1*l.* 10s. a week; and others receiving 1*l.* or more in wages, were admitted on paying one penny per week *for themselves*, and a halfpenny per week for the *rest of their families*. The effect of this Institution was soon evident, for the bulk of the cottage practice was absorbed by it, and the young and less wealthy practitioners were at liberty to walk the streets *unemployed*. The Board was so prosperous, that the first surgeon was discharged, and an M.R.C.P.L., from Manchester, was elected, who engaged an M.D., of Edinburgh, as his assistant and partner. After a time, one of the junior assistants (an M.R.C.S.L.,) started an opposition Board, and an unqualified practitioner a third. In Hyde, Stalybridge, and Dukinfield, others sprung up—every village had its Board—and, *I am sorry to add*, some of the members of our Association *were obliged* to take these appointments *or starve*. The millowners, by an annual subscription of 1*l.* or 2*l.*, were permitted to send *all their accidents* to the Boards; *pregnant women* entered the Boards a week or two *before their confinements*, and left it immediately *after*, obtaining attendance for two or three weekly payments, probably saving the 10s. out of their usual fee of 10s. 6d., —even the venereal cases found cheap attendance. With many changes and varying prosperity, *these Boards are still in existence*, but under a different organization. The committees and annual reports are obsolete. The Board of Health surgeon manages his own affairs *personally*, or by *paid agents* he solicits subscribers, and collects his money weekly. The rules vary in different Boards; [illegible] weekly payment is still 1d. for the head of the family, and ½d. for the others. To obtain attendance for three months, which, woman must have paid her subscription for three months, which, in the case of a young couple, would amount to 1s. 7½d., or an illegitimate child, 1s. 1d. One Board, recently formed, professes only to receive the lowest class of the community; but in others, no person is declined as a subscriber if *the needful pence are forthcoming*.

The Medical Association was broken up in 1840, but a Medical Society was established soon after, including the leading practitioners of the district, who refuse to meet either *unqualified practitioners* or *Board of Health surgeons* in consultation. There are many respectable practitioners who still meet them, or the Boards would have been broken up long ago. The unqualified practitioners have been pupils to surgeons, who have engaged them, knowing their circumstances would never enable them to qualify. *This is a practice which cannot be too strongly condemned.* The Boards of Health and their officers have found their natural level. Practice has returned to its proper channel. My object in this report is to expose the system, not individuals. I have therefore avoided personal remarks or using names. I am, &c.,

S. D. LEES, M.D., and F.R.C.P., of Edin., &c.

Ashton-under-Lyne.

THE INCOME-TAX.

[To the Editor of the Medical Times.]

SIR,—It has occurred to me that you would confer a great boon on our Profession, if you would kindly urge my fellow medical men to use their influence with their respective Members of Parliament to vote for an alteration of the unjust and injurious pressure of the Income-tax upon our body. That we suffer more than any other class of men, you have ably shown in your Editorial Article of last week. I have written the following suggestions to Sir Charles Wood, and also to the Editor of the *Times*, praying the former to introduce them in the discussion on the Budget, and the latter to advocate them in his powerful paper; and, should you deem them of sufficient importance, I should feel much obliged by your insertion of them in your truly valuable journal:—

1st. That while no increase in the per centage should take place on the highest incomes, "as suggested by Mr. Macgregor, in his recent address to his Glasgow constituents," still that a graduated scale should be introduced, say of 1, 1½, 2, 2½, on incomes below 150*l.* starting say at 30*l.* or 40*l.*

2ndly. That an annual premium for insurance should be deducted; for how can we, in any other way at all, be on a par, or an approach to an equality, with the fund or land holders.

3rdly. That greater allowance should be made for our notoriously numerous bad debts; for, though the County Court is, and has been, a great boon, yet often the necessary expenses to obtain a verdict have fallen on the plaintiff, from the inability of the other party to pay *either debt or costs*. Ought not, then, every debt a man conscientiously believes he shall never be paid, be allowed, even though recourse has not been had to legal measures to obtain it?

4thly. That every one paying Income-tax on 150*l.* should be entitled to the elective franchise; for surely the class who do this must be as capable of exercising this privilege as the forty-shilling freeholder. No difficulty could arise in the machinery for carrying this grant into effect, as the presenting his last half-year's receipt to the revising barrister, or at the poll-booth, would be all that would be necessary to prevent fraud or imposition.

With these views, and that now is the time to make an effort to obtain some redress, I am, &c., T. D. MARTYN.

St. Columb, Cornwall.

DUTIES OF A CORONER.

[To the Editor of the Medical Times.]

SIR,—A few days back I was called to attend a pregnant female, having still two months to go, and found her much excited, with severe pains in back. On examination os uteri not dilated. On calling next day, found the opiate administered the previous day had relieved her for some hours, but that pains in back had recurred more agonising than ever, the woman being in a state of great excitement. On re-examination found os uteri dilated to size of a shilling, and rigid, for which I took away twelve ounces of blood, and ordered a simple enema; sent as a placebo some saline mixture, then left her, telling the relatives to send for me as soon as true parturient pains came on. At two a.m., the husband rang me up and, on arriving at the patient's house, I found she had just [illegible] they insisted that I had mistaken [illegible] tion of the kidneys was the cause of the great pain she had in the back, and of her death. Finding I could not persaude them that in all probability her death was caused by puerperal convulsions, I demanded an inquest and *post-mortem*. I, therefore, sent our parish constable to the Coroner, but he (the Coroner) took no notice of the message. I called next day on him myself, and ex-

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plained to him how necessary it was for the sake of exculpating myself from malpraxis, neglect, &c., that an inquest should be held, and a *post-mortem* made, telling him the woman's friends were exceedingly dissatisfied, and found great fault with me, and were circulating reports calculated to injure my professional reputation. He, however, refused an inquest, saying it was not a fit case, and that the deceased's friends had not complained to him of neglect. I wish to know if the Coroner could not lawfully have granted an inquiry, in which case, if he should refuse one in a similar case, what line of conduct I had better pursue.

An inquest in this case was the more imperative, inasmuch as I had sent word to our district Registrar (a medical man) that I courted an inquiry, and begged of him not to grant a burial certificate. He, however, without consulting me, himself went to the patient's house, examined the body, and gave a decision contrary to mine, which, of course, has increased very much more the bitter spirit raised against me.

I send my card, and am, &c., R. A. L.

[Our correspondent is placed in a most painful situation; and he has our sympathy; but he has not stated his case with sufficient precision to enable us to judge whether or not an inquest should have been held. It is not clearly stated, for example, whether the contrary decision given by the district registrar referred to the cause of death, or to the propriety of granting a burial certificate. It is not advisable that coroners should have the power of holding an inquest upon every rumour of the discontent of friends with the practice of the medical attendant. Such a power might lead to serious abuses. A demand for an investigation by the medical man for the exculpation of his own character, where no positive charge is preferred, is not alone sufficient authority for an inquest. If our correspondent's character be injured by malicious reports, his proper remedy is by action at law—a step we are loth to recommend.—Ed. *Medical Times.*]

DISTRESSED MEDICAL MEN.

[To the Editor of the Medical Times.]

Sir,—In reference to your judicious remarks upon the distress of medical men, I do not perceive any observations as to the cause of such distress bearing, according to my opinion, upon the point.

It has always been my opinion, that medical men themselves were bringing the distress which now unfortunately obtains, by their establishment of the various dispensaries.

About thirty years ago, the Medical Profession in the city of London was in a very efficient state, and, as I wish to bring facts to bear upon my opinion, I will briefly state what I think upon the subject. As such, I will divide the period into three equal parts of ten years each, up to the last year. I reason from my own practice, extending over that time, and practising in the city for the last forty years surrounded by numerous factories.

First Ten Years.—My practice averages from 1,500*l.* to 1000*l.* per annum. At the latter part of the first ten years, several individuals solicited my subscription and interest in forming a certain dispensary, to which a considerable number of my patients, friends, and relations subscribed, for the ostensible object of benefiting the poor. Those individuals liberally supported me by their own persons, and giving their recommendation to those over whom they had influence, and also appointing me to attend their apprentices, whenever ill. Some of the establishments had twenty to thirty—they, of course, together produced a good sum; but, on the beginning of the

Second Ten Years—I began to find a great difference in the falling off of many of their better workmen, who earned three to four guineas per week. Upon my inquiring the cause, I found their masters had subscribed to the dispensary already established an additional guinea per year, and gave them all letters, thus doing away with the necessity of paying for medicines, &c., and, upon pushing my inquiries further, I found that the men and families were not better off towards the close of the second ten years by all going to Gravesend, and which, some candidly allowed, cost more than they could afford. Thus things got much worse towards the end of the second ten years; but, upon the beginning of the

Third and Last Ten Years—I found a further loss from the effects of other dispensaries being established, and the masters subscribing to them also,—by their withdrawing my medical attention upon their apprentices, all of whom were then, and are now, sent to them. Thus, at a cost of three guineas per annum, the masters are now entirely relieved from any expense as regards medical attendance, and, lastly, the last few years losses have been great, from the removal of the principals to a greater distance from town, by the ready means of transit by railways, to residences in less time than was formerly occupied in getting to the squares (of course it has benefited the localities,) all of which have tended much towards the distress of some medical men—in fact, everything is now being done to deprive medical men from getting anything from those persons who could, and can now, well afford to pay for medical attendance, in consequence of advice and medicine being given to all persons without considering who or what they are.

I have thus briefly thrown out a few hints for your consideration, and am An Unknown but Constant Subscriber.

London.

ADVICE TO STUDENTS.

[To the Editor of the Medical Times.]

Sir,—Will you allow me to add a few remarks to those which I took the liberty of offering to the younger portion of your readers, on the very important subject of medical education?

It has always appeared to me to be a good plan for a young man entering upon any career of instruction or course of duty, to select the character of one particular person, who, by his abilities and virtues, has justly risen to eminence in the path in which he has himself begun to tread, and to make it, as it were, a beacon to direct his steps, and a model whereby to fashion his conduct. A spirit of generous ambition is thus excited and kept up in his breast, while at the same time he is drawn aloof and preserved from pursuits and engagements which are at best unprofitable, if they be not positively mischievous. If such a person be living at the time, or has been recently on the stage of life, so much the more influential is his example likely to be in leaving a deep impression on the mind of youth. His actions are better known than if he had long passed from the scene. His very words are remembered; anecdotes are heard of his skill, his charity, his piety; perhaps his very kindnesses have been experienced by ourselves or our friends. One of the greatest and best men who has ever adorned our Profession, was taken from us only three or four years ago—I mean the late Dr. Abercrombie; and I much regret that no memoir of his life has (as far as I know) yet been published. Surely there must be ample materials in possession of his family and friends in Edinburgh for a most interesting and instructive biography of this truly admirable physician—a physician of the mind as well as of the body. No man ever more deeply felt than he did the dignity of his profession, the sacredness of his calling. Let me hope that, ere long, we shall have a well-written account of this excellent man's life, and that it may be published in such a form that it may find its way into the library of every medical man, young or old, throughout the kingdom.

If Scotland has recently had her Abercrombie, England has long had her Sydenham, and must ever—while manly independence of character, clear-headed sagacity of intellect, thorough truthfulness, an earnest desire for the good of others, and an humble reverence of the Divine Will are regarded as the surest grounds of true greatness—be proud of his name. Of course I have no intention at present to dilate upon the exceeding value of his works in a strictly professional point of view. Their merits have been recognised by all who have duly studied them, and the highest eulogies have been pronounced by the greatest physicians of each succeeding age. Boerhaave expressly tells us, that "he frequently perused the writings of Sydenham, *and always with greater eagerness.*" It is a good sign of the medical literature of the present day, that they are more generally studied than they were during the fifty or eighty years preceding. Their tone and character are far above those of almost all his contemporaries; and, we regret to add, that not many of his successors have caught his spirit or worthily imitated his example. The secret of this is, that scarcely any of them have taken such lofty views of the true end of that noble profession which we [illegible] of the human race. No wonder, therefore, he does not hesitate to declare, that "the art of medicine, if it be a real art and not merely one in name, is the best of all worldly gifts, and so much the more to be preferred to all others as life excels all enjoyments it brings with it."

How deeply he appreciated the responsibilities as well as the privileges of his profession is obvious from many passages in his writings; but nowhere has he so emphatically given utterance to his sentiments on this head as in the preface to the first edition of

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the "Observationes Medicæ," his earliest work. The following is the opening part of this beautiful production:—

"Whoever applies himself to the practice of medicine, should seriously weigh these things in his mind:—1. That he must one day render to the Supreme Judge an account of the lives of the sick who have been committed to his care. 2. That whatever amount of art or science he has, by the Divine blessing, acquired, should be devoted primarily to promote the praise of Almighty God and the welfare of mankind; for it is unworthy that these heavenly gifts should subserve the pursuits of avarice or ambition. 3. That he has undertaken the care of no ignoble nor contemptible creature; to estimate the preciousness of a human being let us remember that the Only-begotten Son of God became man, and thus ennobled with His own dignity the nature which He assumed. 4. Lastly, that he himself is not exempt from the common lot, but is subject to the same laws of mortality, and exposed to the same accidents and distresses as others; wherefore the more diligently, and with the more affectionate sympathy, let him, being a fellow-sufferer, strive to bring relief to the afflicted.

It is, however, too manifest, from their practice and mode of life, that some medical men are not willing to be guided by such reflections as these, either because they are puffed up with pride and a lofty opinion of their own wisdom, and cannot descend, except with an air of contemptuous negligence, to what seem trifles in their eyes, being all the while indifferent what becomes of the poor creatures committed to their care, and unmindful of, and scarcely recognizing, the existence of the Deity, or else, because their thoughts being greedily set upon wealth, and carried away by the desire of a little reputation, they only think how they may become rich, or how they may acquire the empty distinction of a name."

However this may be, it is unquestionably the duty of all medical men who desire to be considered, as well as to be, both wise and upright, so to act, that first recognizing, and then praying, for the Divine blessing, they can look up to Heaven for instruction and a happy issue in all their affairs. Moreover, they should apply all their exertions, and use every means in their power, whereby they may not only restore health to the sick, but also give greater certainty to the healing art which they profess; directing all their inquiries to this end, that the science of medicine may daily become more enriched and enlightened, so that mankind may enjoy its benefits more widely and securely, even after they have been removed by death."

I am tempted to quote, in addition, the following remark of Sydenham, on *the choice of acquaintances*, as it may most appropriately find a place in a professed advice to students:—

"Among other observations which I have made in the short period of life, this one thing appears to me particularly deserving of notice (*and which I am anxious should be most strongly impressed on the mind of my son*)—that the acquaintance of those who are distinguished by integrity and other graces of character has invariably turned to my profit and advantage; and, on the other hand, that the friendship of the wicked (if indeed that alliance which is not based on virtue should not rather be called a *combination* or even a *conjuration* than a *friendship*), although they may never have injured me either by word or look, has in some way or other at length done mischief or damage to me or my affairs."

It is worthy of notice that Sydenham enjoyed the friendship of some of the greatest and best men of his time. Among these, Boyle and Locke deserve to be particularly mentioned, as both of these distinguished philosophers—more especially the latter—had studied the science of medicine with profound attention.

They had all, I may remark, drunk deeply at the Baconian spring, and had caught something of their great teacher's spirit; and well they knew what he thought of the usefulness and dignity of medicine; for had he not said,—"If physicians will learn and use the true approaches and avenues of nature, they may assume as much as the poet declareth:—

'Et quoniam variant morbi, variabimus artes;
Mille mali species, mil e salutis erunt;'

which that they should do, the nobleness of their art doth deserve, well shadowed by the poets in that they made Æsculapius to be son of the sun, the one being fountain of life, the other as the second stream; but infinitely more honoured by the example of our Saviour, who made the body of man the object of his miracles, as the soul was the object of his doctrine." I am, &c.,

London. VIGILANTIUS.

THE HOMŒOPATHS.

[To the Editor of the Medical Times.]

SIR,—Upon reading the letters of Dr. Dudgeon, which have lately appeared in your journal, one is almost led to conclude that Dr. Dudgeon is really a believer in the dogmatic medicine of the followers of Hahnemann.

On looking around us, we certainly find in this world strange efforts made to pervert the intellect of man. Men of reputed high standing, as scholars and logicians, are found to prostitute their reasoning powers before evidence so weak, that even the veriest child would reject it; *e.g.*, it was but the other day that Pope Pius the Ninth, sent a crown of gold as a mark of favour and of faith, to a picture virgin at Rimini, because the Virgin in the said picture *had been seen to wink!* But sundry pictures have been *also seen* lately to shed forth blood—as that at St. Saturnin—which blood, when analysed by the chemist, was found to be real and genuine human blood! The halt, the blind, the deaf, the afflicted with all kinds of diseases, have been cured by looking at these bleeding pictures!

The most wonderful, however, of all these lying wonders of the 19th century, is the cure of disease by homœopathic means—by the decillionth portion of a grain of medicine! Hahnemann commenced his career by selling to the German public a nostrum which he told them would cure every disease. Hahnemann's nostrum pleased the ignorant, hood-winked the learned, and cured its hundreds who willed to be cured by it. It was through the medium of this nostrum that Hahnemann discovered the gullibility of the masses of men; this aptitude to be quacked, this natural quackibility, required but the stimulus, and this stimulus Hahnemann cunningly prepared in a series of dogmatic sentences, framed as if upon the inductive foundation of the Baconian school "*Si mundus vult decipi*," said he, "*decipiatur*,"—his words have been prophetic.

I lately received a communication from a *semi*-believer in this *pseudo*-system of medicine, in which he stated that he had found "three globules of '*mercurius*' to salivate a patient." As I doubt not that three globules of *genuine* bichloride of mercury would produce salivation in some patients, I am anxious that my correspondent, should he see this letter, would try three decillionth globules *of his own preparing*, instead of trusting to the "mercurius" of the homœopathic druggist, and note the result. He will then find that, under no circumstance of idiosyncrasy will *his* "mercurius" induce salivation. But Dr. Dudgeon and others doubt now, it appears, Hahnemann's infallibility. They reject the infinitesimal necessity, holding still to the *similia similibus* principle, which renders the whole system an absolute absurdity. Yet, as these leaders in this school persist in this favourite dogma, I would ask, for the third time, through your columns, if, throughout the whole world, they can, upon authentic evidence, produce one single case of *goitre* caused, or induced by the use of *iodine*, in a healthy subject? (See article "Iodium," in "Jahr's Manual of Homœopathic Medicine," Vol. I. p. 289. "*Hard and large goitres.*")

In conclusion, Sir, as belief in the "Rimini Miracle," as it is called, either by the Pope himself, or by the unlettered populace of Italy, would not alter the fact as to the *non*-winking of the Virgin in the picture, neither would great names cause the homœopathic dogmas which are false to be true; yet one would like, by way of information, to know whether the names of any men of fame—of acknowledged fame, at home or abroad, either in medicine, properly so called, or in the collateral sciences, are to be found in the lists of homœopathic believers?

I should like also to be informed, whether or not any man can be named, who, for the "glorious truths of Hahnemannism," as they are bombastically termed, has given up or resigned a fairly remunerating *legitimate* practice, to enter the homœopathic lists? I know of none such, although I am in possession of the names of many of the leading homœopaths, who, from very evident causes, could not get a livelihood *by regular practice*—who had, in fact, retired from the profession to follow other more fitting avocations—and who, induced by the easily-acquired dogmas of homœopathy, have recommenced practice, and, with the modicum of brain requisite for the purpose, prattle out empty and senseless sentences, culled from such trashy works as the "Organon," to the admiration of flocks of silly women and weak-minded men, and thus enrich their coffers at the expense of their dupes, and, what is worse, of their own integrity.

A list of homœopaths will be found appended to that of the regular practitioners in the Provincial Directory; but, with all due deference to that list, I must press my inquiry, as I am still ignorant of the existence in the homœopathic ranks of the name of any one of acknowledged fame.

Your reply, Sir, to this inquiry, will much oblige yours, &c.,

Halifax. JAMES INGLIS, M.D.

[To the Editor of the Medical Times.]

SIR,—The jocular letter of Dr. Dudgeon, in the last number of your journal, was so highly entertaining that I should have done

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no more than give way to my mirth, had not that gentleman made an assertion which requires from me a slight contradiction. He states that I had much better been silent on the subject of homœopathy, since every one must have observed how he has lucidly combated me on all the difficult points of that system. This I must unhesitatingly contradict, for, so far is it from being correct, that I have not yet heard one single person declare that Dr. Dudgeon has at all illuminated the subject by his attempted explanations; and, more than this, I could point out one or two individuals who, once wavering, have, from the futile letters of Dr. Dudgeon, decided at last against him. I am so confident that this is the general feeling, that I wish nothing better than that any one who has not read the correspondence and should wish to do so would refer to my letters beginning May 11th, and see how far homœopathic mysteries have been dragged from their obscurity by the pen of Dr. Dudgeon. The reader will see for himself how very ingeniously all the points at issue have been slurred over or obscured by verbalism, as in the manner of the Doctor's last letter, where, for instance, he would make us believe that the frozen noses of Canada are cured by exposure to cold, and that the rubbing is not of the slightest importance, since no friction can be of any value which is produced by less means than those of a horsehair glove. He forgets, also, that playing with snow-balls causes the hands to glow with heat.

I must not, however, go into the question, as I promised to have concluded before this. It is right, however, to give Dr. Dudgeon credit for some qualities which he denies me. One is, that his style of writing is good, and well calculated for the chief of one of those systems of which he seems well to know my opinion, when he can, in fancy, see me putting my finger to my nose. In fact, the Doctor almost thinks that I believe homœopathy to be (to use a common but expressive word) "humbug." I confess I have always had some idea of this sort, but lately have been convinced of the fact. Laying this aside, however, as a matter of opinion, I do humbly yield the palm of literary excellence to the homœopath. I must also give Dr. Dudgeon credit for another quality, which gives a charm to his writings—I allude to that mingling of the "dulce" with the "utile"—that peculiar vein of humour underlying all his productions, which makes them amuse at the same time that they edify. I would not say that one can perceive a hearty laugh beneath the surface of his lucubrations, but the pleasantry seems rather of that kind which is familiarly known as "laughing in the sleeve."

As Dr. Dudgeon has spoken of candour, it might be advisable to inform him, that I am not, as he is, bound to any particular system of practice, and much less living by it, and therefore my motives for disinterestedness may perhaps be stronger than his. Indeed, being in search of the best mode of treatment in disease, I have been trying to prevail upon myself to believe the homœopathic doctrines, and "make hay while the sun shines." I have not been able, however, to reconcile myself to adopt any doubtful means, plausible as are the arguments used by men, both regular and irregular, for all these quack practices. I am well aware how hygeists, chrono-thermalists, homœopathists, &c., speak of the world and all society as a great "sham," and therefore how among the various false systems which are abroad they think they are at liberty to choose one for themselves and live as well as others; and the Hahnemannist may even boast of his honesty for selecting that which is the least injurious. We see, then, that homœopathy, studied from this fresh point of view, puts on a more favourable aspect; and this may be the reason why so great a difference exists between a man searching for truth alone and another arguing for a system.

I might here inform the globulists—a fact which never seems to have entered their minds—that a man may utterly reject the orthodox practice, and yet equally despise the homœopathic; for it is believed by them that every argument against a false theory or practice in regular medicine is an argument in their favour. I could show them more than one individual, both in the Profession and out of it, who, sceptical of legitimate practice, utterly ridicule the homœopathic.

To earnest young men who were endeavouring to study disease, apart from the thousands of remedies which every doctor's boy could give by rule, the specifics of the homœopaths, learned by rote from a book, were perfectly ridiculous—happily, too much so to retard the progress of science. For, mark—the practice has not been evolved by slow degrees, but has been perfected within a few short years. The Homœopaths, it will be remembered, are infallible; no one has yet heard of a case in which their treatment was not eminently successful; and more than this, the practitioners are endowed with some marvellous method of acquiring their art in an inappreciable short space of time. I could point to many men who, one day practising in the ordinary way, or willing to do so if they had the opportunity, and the next day perfected in the new art, administering globules in all diseases, with a universal success. No wonder homœopaths say that Hahnemann had a supernatural light from Heaven shed upon him; and, in justice to his followers, I insist that the same has been extended to them. In conclusion I may remark, that in one point Dr. Dudgeon has, by chance, hit the truth. He believes that my most judicious friends must have warned me from touching the subject of homœopathy. They have done so, in fact. They have remonstrated with me for wasting my time upon a subject so utterly beyond the reach of argument and reason. I did, however, take up that in earnestness which Dr. Dudgeon treats as a good joke. We must all learn by experience. I must apologise for thus trespassing upon your valuable columns, but an absence from England will preclude me from again troubling you on this frivolous subject.

I am, &c., SAMUEL WILKS, M.D., London.

Camberwell.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Dr. J. R. BENNETT, President, in the Chair.

CORRODING ULCER OF THE UTERUS.

Dr. Henry Bennet presented to the Society several pathological specimens of uterine disease, and a wax preparation, illustrating inflammatory ulceration of the cervix uteri. The latter had been taken from a cast, and coloured from life by Mr. Tuson, of University College. It well illustrated the disease, which he had described in his writings as ulceration of the cervix uteri, a morbid state to which some persons had lately attempted to apply the nondescript term of granular inflammation. It would be perceived that the wax model presented the characters which classical writers had ascribed to ulceration, "a granulating surface secreting matter." (Sir Astley Cooper.) "A solution of continuity in any soft part of the body, attended with a secretion of pus, or some kind of discharge." (Samuel Cooper.) There was no appearance of loss of substance, it was true; but, on examining one of the macerated uteri then shown to the Society, it would be seen that the cervix which had been ulcerated during life presented very evident destruction of tissue, the mucous membrane having been destroyed in places, so as to reveal the lamellated structure of the submucous tissues. The other uterus was a very interesting illustration of corroding ulcer, kindly forwarded to him (Dr. Bennet) by Mr. Highmore, of Bradford, Wilts. This disease was one of rather a mysterious character, the ultimate structural nature of which had not yet, he believed, been satisfactorily made out. Mr. Highmore had given him the following details:—The patient, aged 48 at her death, was the mother of eleven children, the youngest of whom was born when she was 43. In 1847 she became subject to leucorrhœa and uterine hæmorrhage, which confined her for months to bed. In 1848 she went into the Bristol Infirmary, where the vagina was repeatedly plugged to arrest hæmorrhage, but no examination was made. Mr. Highmore saw her in May, 1849, and examined her with the speculum. He detected a diseased condition of the cervix uteri, which presented a fungous granular mass, about the size of a walnut, projecting from the os uteri. The disease resisted cauterisation, and progressed in spite of local and general treatment, until the patient sank from exhaustion, November, 1850. On examination of the uterus, now before the Society, it will be found that not only the cervix, but a considerable portion of the body of the organ has been destroyed without any apparent deposit of new matter, or thickening or induration of what remains. The healthy uterine tissue ends abruptly in a jagged surface, as if it had been eaten away. The rectum and bladder are both extensively ulcerated, so that the three cavities communicate freely, forming a kind of cloaca. Dr. H. Bennet had submitted the uterus to his friend Dr. Quain, in order to have his opinion respecting the microscopical anatomy of the diseased tissues, and had received from him the following important memorandum:—"On examining portions of the soft jagged substance taken from different parts of the ulcerated edges of the body of the uterus, I find the appearance in all pretty nearly the same. That is to say, the substance consists of—1. A loose, fine, filamentous or cellular tissue. 2. Particles of fatty matter, in some portions very abundant, and both free and imbedded in the tissue. 3. Crystals of the earthy phosphates, of the form of prisms, stars, or leaves, some free, others inclosed in the surrounding substance. 4. A few small

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cells containing granules, free granules, and broken-down fibres. I do not observe any trace whatever of cells, fibres, or other matter, which could connect the morbid process with cancerous disease. Nor, on the other hand, is there any appearance of plaster or other substance, by which the disintegrating process could be restricted or repaired. On comparing this substance, from the surface of the ulcer, with the deeper and healthier tissue of the womb, I am led to infer that the difference found in the two depends on a process of decay or disintegration taking place slowly, without any capability of the surrounding parts to restrict the process, or to restrain its effects. On what this want of power depends, or what may have been the primary existing cause of the disease, is a subject of interesting inquiry."

In this latter remark of Dr. Quain, Dr. H. Bennet fully agreed, and he thought the results of the microscopical examination of this case of corroding ulcer of the uterus would be listened to with interest, as he was not aware that this most valuable mode of investigating the intimate structural nature of disease in the animal tissues had been applied to the disease in question. Professor Bennett, of Edinburgh, classes it among the epithelial canceroid growths, but did not appear to have examined it. The crystals might be owing to the urine. The filamentous cellular tissue found at the ulcerated edge showed that disease developed cellular tissue in the uterine tissue so as to render it visible, but did not prove that it existed in a demonstrable form in the non-pregnant uterus, although he was very willing to admit that the microscope might prove such to be the case.

Dr. Tilt read a paper

ON DIARRHŒA AS A HITHERTO UNNOTICED SYMPTOM OF MENSTRUATION,

and on the use of purgatives at the different epochs of the menstrual function. He premised that, not having found a description of catamenial diarrhœa in the classic works of Friend and Brierrede Boismont, he concluded it was not generally known to the Profession. He then proceeded to inquire into the nature and frequency of that catamenial diarrhœa—whether it occurs

1. At the prodroma of menstruation.
2. During its regular establishment.
3. At its cessation.

1st. As a symptom of the prodroma of menstruation, diarrhœa scarcely ever occurs. Dr. Tilt noticed it but once in 161 cases.

2ndly. As a symptom of regularly established menstruation it occurred in 88 instances out of 161 women carefully interrogated relative to this point. It did not occur in 73 instances. In those cases in which it was present, it preceded the menstrual flow in 45 cases, accompanied it in 31, both preceded and accompanied it in 10, and in two instances it neither preceded nor accompanied it, but, on the contrary, habitually for two days followed the menstrual flow. In the cases of precursory diarrhœa, the bowels were in general costive until the cessation of the catamenia.

3rdly. As a symptom of menstruation at its cessation, diarrhœa was much less frequent than is generally believed, for it was only found in 8 per cent. of such cases.

With respect to the nature of the diarrhœa, it is generally unattended by pain, but sometimes nausea and slight colics precede it for two or three days. In one patient, these symptoms habitually lasted eight days previous to the appearance of diarrhœa. When it occurs at the change of life, it generally appears at irregular intervals; it may, however, adopt the regularity of the menstrual function. As a general rule, however, when diarrhœa has habitually accompanied menstruation, there is at the change of life a gradual diminution of both discharges, the cessation of one marking the termination of the other. Thus Dr. Tilt affirmed, that as a prodromic symptom diarrhœa scarcely ever occurs, that it is found in 8 per cent. of cessation cases, and that it is a very frequent precursory symptom of fully established menstruation. He therefore drew the physiological conclusion, that for the performance of menstruation the ovaries not only determine the menstrual secretion from the womb, but often call into consentaneous action most of the organs which, being subsidiary to nutrition, are animated by the same ganglionic nervous system, and particularly the intestines, with which they are placed in such close juxtaposition. He then proceeded to the rules which he considered to be those which ought to be adopted in the administration of purgatives:—

1. During the prodroma.
2. During the regular establishment; and
3. At the cessation of menstruation.

1st. *Use of Purgatives during the Prodroma.*—As Dr. Tilt had previously shown that diarrhœa scarcely ever precedes the appearance of this function, he concluded that nature does not dictate purgatives to be given at this period, while experience has proved the painful consequences often entailed by their being administered as emmenagogues.

2ndly. *Use of Purgatives during fully established Menstruation.*—As in more than 50 per cent. nature prefaced the menstrual crisis by a premonitory diarrhœa, so experience teaches that purgatives may be advantageously given, when defective menstruation does not depend on any serious organic or uterine lesion; but the great point, says Dr. Tilt, in the administration of purgatives is, so to give them that the menstrual type be not interfered with, for, although this may be done with impunity in a very small class of women, it cannot be with the majority. Brisk purgatives, given a few days before those symptoms which generally precede each menstrual epoch, often anticipate it by several days, and thus vex nature in one of her most constant laws, and in many cases permanently disordered menstruation may be ascribed to the function having been treated as a child plays with a watch,—setting the hands backwards and forwards. An inquiry, therefore, into how many days before the menstrual the premonitory diarrhœa used to appear, or if the patient has not that symptom, the date of appearance of other menstrual symptoms will be a sure guide as to the fit time for giving purgatives. Dr. Tilt next indicated the value of purgatives in amenorrhœa and chlorosis; and stated, that a doctor, cited by Morgagni, never gave anything else in these cases but small doses of aloes. Dr. Hamilton, of Edinburgh, also depended exclusively on purgatives for the cure of chlorosis; but Dr. Tilt is of opinion, that it is better not to confide in purgatives alone, but to let them form the initial part of the treatment, as in nature diarrhœa often forms the initial part of menstruation. His plan is to begin by making a decided shock on the system of nutrition by an emeto-cathartic, and then give steel and bitters; but, if the appetite does not improve, and the bowels remain sluggish, he puts aside the steel and bitters, and seeks to break in on a perverse concentration of forces by giving another emeto-cathartic. If this plan were followed, he adds, the treatment of chlorosis would not require so long a period as it frequently does. Speaking of that period women appositely term the *dodging* time, Dr. Tilt is of opinion, that purgatives given just before the menstrual epoch are injudicious, for they might increase the flow nature seeks to diminish; instead of these, the frequent use of the milder opening medicines should be prescribed, so as to diminish by degrees the plethora of the abdominal viscera. And, as amongst the vicarious diseases by which nature enables the system of woman to right itself, diarrhœa is the most frequent, so should purgatives be habitually given after the *cessation* of menstruation, not to re-establish a periodical flow, but to diminish plethora, and the necessity for that plethora seeking for any other less manageable vent. With regard to the particular purgative, Dr. Tilt frequently prescribes the soap and aloes pill of the Pharmacopœa, ordering 5 or 10 grains to be taken with the first mouthful at dinner; and states, that though he has often seen hæmorrhoidal affections relieved by the use of aloes, he has never seen them caused by it, and his experience is confirmed by that of Avicenna, Stahl, Giacomini, and Cullen. Flowers of sulphur alone, or else to each ℥j. of it, a drachm of sesquicarbonate or biborate of soda, and sometimes from 5 to 10 grs. of ipecacuanha, he also administers, ordering from 1 to 2 scruples of the powder to be taken once a day in a little milk, so as to act mildly on the bowels, which is particularly required at the cessation of menstruation.

In the discussion that followed, the occurrence of diarrhœa, in connexion with menstruation, was shown not to be an entirely novel observation. Some of the speakers considered it to be indicative of a morbid condition of the uterus, and others as a revulsive to the uterine secretion. Dr. Tilt's opinions were supported by few of the Fellows who spoke on the question.

FRENCH WEIGHTS AND MEASURES.

[In accordance with the desire of several Correspondents, we are induced to publish the following tables to assist them in the perusal of French works on science.—Ed. *Medical Times.*]

The pound is equal to . . .	16 ounces
The ounce	8 drachms
The drachm	3 scruples, or 72 grains
The scruple	24 grains

Divisions of the Kilogramme.

The kilogramme is equal to . . .	10 hectogrammes
The hectogramme . . .	10 decagrammes

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The decagramme	10 grammes
The gramme	10 decigrammes
The decigramme	10 centigrammes
The centigramme	10 milligrammes.

Approximative Value of the Decimal Weights.

The kilogramme is equal to	2 pounds
The demi-kilogramme	1 pound
One hectogramme	3 ounces, 1 drachm and a half
Three decagrammes, 2 grammes	1 ounce
One decagramme	2 drachms, 36 grains
Four grammes	1 drachm
Two ditto	½ drachm
One ditto, 3 decigrammes	1 scruple
One gramme	18 grains
One decigramme	2 grains
One demi-decigramme	1 grain
Two centigrammes	⅗ grain
One centigramme	⅕ grain
One milligramme	1-40th grain.

Or

	Troy grs.	lb.	oz.	dr.	gr.
Milligramme, equal to	·0154				
Centigramme	·1544				
Decigramme	1·5444				
Gramme	15·4440				
Decagramme	154·4402 equal to	0	0	2	34·4
Hectogramme	1544·4023	0	3	1	44·4
Kilogramme	15444·0234	2	8	1	24·4
Myriagramme	154440·2344	26	9	6	0·8

French grs.		Troy grs.
1	equal to	0·8233
2		1·6406
3		2·4609
4		3·2812
5		4·1015
6		4·9218
7		5·7421
8		6·5624
9		7·3827

Approximative Value of the Decimal Measures.

	Glasses ful.	Pints.	Ounces.	Drachms.
One litre is equal to	6 or	2	0	5
Five decilitres	3 or	1	0	2½
Two ditto	1 or	0	6	2
One ditto	½ or	0	3	1
Five centilitres	¼ or	0	1	4½
Two ditto	1 liqueur-glassful or	0	0	5
One ditto	1 spoonful	0	0	2½

Value of the Weights of other countries, as compared with the French Pound.

	Pound.	Ounces.	Drachms.	Grains.
Germany	0	13	4	48
Amsterdam	1	0	0	42
Belgium	1	0	0	42
Berne	1	0	0	0
Copenhagen	0	15	3	20⅔
Florence	0	11	0	50
(Divided into 12 ounces.)				
Genoa	0	10	5	60
(Divided into 12 ounces.)				
Geneva	1	0	0	18
Hamburgh	0	15	2	15½
Lisbon	0	15	7	68
London	0	12	3	12
(Divided into 12 ounces.)				
Madrid	0	15	0	16
Milan	0	9	3	0
Monaco	0	15	2	23
Naples	0	10	7	54
(Divided into 12 ounces.)				
Paris	1	0	0	0
(Divided into 16 ounces.)				
Rome	0	11	0	50
(Divided into 12 ounces.)				
Stockholm	0	13	7	8
Warsaw	1	10	4	24
Venice	0	8	6	0
Vienna	1	2	2	32

At Paris a scruple is equal to 24 grains; a drachm to 72 grains; everywhere else a scruple is equal to 20 grains; and a drachm to 60 grains.

Mr. Redwood (Gray's "Supplement to the Pharmacopœia") gives the following as the French measures of extension and capacity:—

French Measures of Extension.

(The French measure being at 32° Fah., and the English at 62° Fah.)

	English Inches.	English long measure. miles	furl.	yds.	ft.	in.
Millimetre =	·03937					
Centimetre =	·39371					
Decimetre =	3·93710					
Metre =	39·37100 =	0	0	1	0	3·1
Decametre =	393·71000 =	0	0	10	2	9·7
Hectometre =	3937·10000 =	0	0	109	1	7·1
Kilometre =	39371·00000 =	0	4	213	1	10·2
Myriametre =	393710·00000 =	6	1	156	0	6

French Measures of Capacity.

	English cubic inches.	English Apothecaries' Measure. gals.	pts.	ozs.	drs.	gr.
Millilitre =	·0610	0	0	0	0	16·8
Centilitre =	·6103	0	0	0	2	42
Decilitre =	6·1028	0	0	3	3	2
Litre =	61·028	0	1	15	1	43
Decalitre =	610·28	2	1	12	1	16
Hectolitre =	6102·8	22	0	1	4	48
Kilolitre =	61028·	220	0	12	6	24
Myrialitre =	610280	2200	7	13	4	48

Dr. Dunglison ("Medical Lexicon") furnishes the following:—

French Measures of Capacity.

	English cubic inch.	Wine measure.
Millilitre =	·061028 =	16·2318 minims.
Centilitre =	·610280 =	2·7053 fluid drachms.
Decilitre =	6·102800 =	3·3816 fluid ounces.
Litre =	61·028000 =	2·1135 pints.
Decalitre =	610·280000 =	2·6419 gallons.
Hectolitre =	6102·800000	
Kilolitre =	61028·000000	
Myrialitre =	610280·000000	

French Measures of Length.

	English inches.	Yard. ft. inches.
Millimetre =	0·039	
Centimetre =	0·393	
Decimetre =	3·937	
Metre =	39·371 =	1 0 3·37

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 21st inst.:—

BROADWATER, WILLIAM JAMES, Cannon-street-road, St. George's-in-the-East.
BEALE, WILLIAM CHAYTOR, Kennington.
BISHOP, EDWARD, Kirkstall, Yorkshire.
BRADY, JOSEPH, Dewsbury, Yorkshire.
BAKER, JOHN DEANE, Oakhill, Somerset.
KING, CHARLES, Hon. East India Company's Service, Bengal.
ROULSTON, JOHN, Helperley, Yorkshire.
SHEEHY, WILLIAM HENRY, St. John-street-road, Islington.
TURNER, WILLIAM FREDERICK JOHN, Horton, Gloucestershire.
VALLANCE, THOMAS JAMES, Stratford, Essex.
WHITE, ARTHUR DAVID, Winchester, Hants.

At the same meeting of the Court, Mr. Samuel Reginald Potter passed his examination as naval-assistant.

HER MAJESTY'S LEVEE.—The following members of the Profession attended Her Majesty's *levée* on Wednesday:—Sir Benjamin Brodie, Bart.; Sir James Clark, Bart.; Sir James Eyre, Sir Charles Aldis; Drs. Holland, Forbes, Lloyd, Lyon Playfair, Jeaffreyson; Fergusson, and Mr. White Cooper. Mr. Erasmus Wilson had the honour of presentation to Her Majesty by Major-General Sir George Arthur; and Sir Benjamin Outram, on receiving the

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honour of knighthood and the military order of the Bath, by Sir F. Baring, Bart.

MILITARY APPOINTMENTS.—3rd Foot: George Gaforth Wyer, gent., to be assistant-surgeon; 55th Foot, staff-surgeon of the 2nd class, James M'Gregor, M.D., to be surgeon, vice George Alexander Stephenson, who retires upon half-pay; George Edwin Gains, gent., to be assistant-surgeon; 68th Foot, John Francis O'Leary, gent., to be assistant-surgeon; 74th Foot, William Warden, M.D., to be assistant-surgeon; 84th Foot, Acting Assisting-Surgeon Hugh Melville Balfour, M.D., to be assistant-surgeon, vice Golden, appointed to the staff; 92d Foot, Archibald Henry Fraser, gent., to be assistant-surgeon. Hospital staff: staff-surgeon of the 1st class, Alexander Melvin, to be deputy inspector-general of hospitals, vice John Kinnis, M.D., who retires upon half-pay; Staff Assistant-Surgeon Francis Laing, M.B., to be staff-surgeon of the 2nd class, vice M'Gregor, appointed to the 55th Foot; Assistant-Surgeon Alfred Gosden, M.B., from the 84th Foot, to be staff assistant-surgeon, vice Laing promoted.

NAVAL APPOINTMENTS.—Surgeon John Findlay (1846) to the Alecto; Assistant-Surgeon Joseph Sloss, M.D., (1848) to the Alecto; Andrew M'Clure (1848) from the Indefatigable, to the Banshee steamer, at Woolwich.

OBITUARY.—On the 17th Jan., at York, William Travis, of Scarborough, M.D., in his 80th year. On the 22nd ult., Caleb Clarke, M.D., at Banbury, Oxon, in the 41st year of his age.

PROFESSOR OWEN, F.R.S.—This distinguished physiologist will commence his course of lectures on Tuesday next, at four o'clock, on comparative osteology. The introductory lecture will be the Aims of Osteology, illustrated by the comparative anatomy of the temporal bone.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—The following gentlemen were ballotted for and elected fellows of the Society on Tuesday last:—Dr. Acland, of Oxford; Dr. Pickford, of Brighton; Dr. Picton, of Swansea; Mr. Adams, of the London Hospital and St. Helen's-place; Mr. Birkett, of Guy's Hospital and Wellington-street, Southwark; Mr. Startin, of the Hospital for Diseases of the Skin and Savile-row; and Mr. Kingdon, of Bank-buildings.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—List of Officers and other Members of Council nominated for 1851-2:—President—*Joseph Hodgson, F.R.S. Vice-Presidents—*Thomas Mayo, M.D., F.R.S.; John Thomson, M.D.; *William Coulson; *Alexander Shaw. Treasurers—Robert Bentley Todd, M.D., F.R.S.; *Richard Quain, F.R.S. Secretaries—Seth Thompson, M.D.; *Campbell de Morgan. Librarians—*Henry Pitman, M.D.; James Dixon. Other Members of Council—George Cursham, M.D.; *Sir James Eyre, M.D.; William Macintyre, M.D.; *William Merriman, M.D.; Alexander Sutherland, M.D., F.R.S.; James Clayton; Henry Charles Johnson; *Henry Hancock; *John Hilton, F.R.S.; *Andrew M. Macwhinnie.

DEATH OF MR. LEACH.—This gentleman so long and deservedly well known to the Profession as a successful classical teacher, lately expired at his residence, Great Queen-street, Lincoln's-inn-fields. The father of the deceased gentleman was associated with the immortal Howard, in some of his philanthropic measures for the melioration of prisons and prisoners. It is to be regretted that Mr. Leach has left his family in straitened circumstances. Mr. John Leach, the eldest son of the deceased, succeeds his father as a teacher of the classics.

EXTRAORDINARY SCENE AT THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY, ON TUESDAY LAST.—It will be in the recollection of the Profession, that some years since the Council of this Society unwisely permitted a paper to be read purporting to describe an amputation under the supposed influence of mesmerism. Wisdom came late, but it came at last, and the minutes of the meeting were erased from the books of the Society. During the present session, Dr. Marshall Hall announced that the patient had confessed himself to have been an impostor on that occasion, and that the whole affair was a trick. This statement, published in the medical journals, seems to have excited the indignation of the mesmerists, and Dr. Ashburner attended the meeting on Tuesday evening, to be the exponent of their views. He rose accordingly, before the paper for the evening was read, and commenced addressing the Fellows. As soon as his object became evident, Dr. Copland rose to order, and the President, after briefly recapitulating the preceding facts, stated that the question now rested between the gentleman who reported the case and Dr. Marshall Hall. It would be very irregular were he to permit its further discussion before the Society. Dr. Ashburner very unwillingly yielded to the dictum of the President; but he had scarcely resumed his seat, when a Mr. Cohen sprang up, and commenced speaking and gesticulating in favour of mesmerism, as far as we could judge, but the noise and confusion were such we could scarcely catch a word he said. The Fellows were most decided that the discussion on mesmerism should not be re-opened, and Mr. Cohen seemed as determined that it should. The voice of the Fellows ultimately prevailed; and the President finally succeeded, after the waste of some time, in causing Mr. Cohen to resume his seat. Dr. Copland emphatically declared that Mr. Cohen, after the strong expression of feeling from the Society, and the declaration of the President, was irregular, and that he had insulted the Society by persisting in speaking on the subject they repudiated.

KING'S COLLEGE HOSPITAL.—The Annual Meeting was held on the 24th ult. The Report stated, that 1801 in-patients and 24,255 out-patients had been received. The receipts were 4447*l.* 9s. 11d., the expenditure, 4609*l.* 8s. 9d. Legacies to the amount of 1200*l.* had also been received. The subscriptions to the building fund of the new hospital already commenced, amount to 33,000*l.*; 50,000*l.* were required. It was the wish of the Committee to obtain possession of all the property from Portugal-street, along Carey-street, southward to Grange-court, and thence westward to Clement's-lane, which would give the command of an extensive area, and a convenient site for the new hospital. There is no doubt but that in the course of the ensuing summer the necessary additional ground will be obtained, and a draft of the proposed Act has been already lodged at the Private Bill Office, and the necessary notices in the *Gazette*.

POISONING BY BEETLE WAFERS.—An inquest was lately held in Seven Dials, on a boy named Michael Staff, nine years of age, deceased from eating two packets of beetle waters, made with red lead, flour, and water. They had been thrown into the street from an oilman's shop, and the deceased, with other boys, had picked them up, and eaten them with eagerness. All the boys were taken ill with symptoms of lead poisoning, but Staff was the only one that died. The verdict was in accordance with the evidence.

A CHILD under seven years of age has recently been killed by a drunken woman giving it nearly a quartern of gin. The symptoms were those of extreme collapse, from which it never recovered.

* Those gentlemen to whose names an asterisk is affixed, were not on the Council last year.

DEATHS *in the Metropolis for the week ending Saturday, Feb. 22, 1851.*

Causes of Death.	Feb. 22. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	501	413	299	1213	10472
Specified Causes	501	411	299	1211	10615
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	151	42	15	208	1952
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	4	28	26	58	579
3. Tubercular Diseases.	58	123	9	190	1849
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	62	41	41	144	1301
5. Diseases of the Heart and Blood-vessels	3	32	31	66	374
6. Diseases of the Lungs, and of the other Organs of Respiration ...	115	79	83	277	2160
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	22	23	10	55	579
8. Diseases of the Kidneys, &c. ...	...	7	7	14	100
9. Childbirth, Diseases of the Uterus	...	8	1	9	112
10. Rheumatism, Diseases of the Bones, Joints, &c.	2	8	3	13	82
11. Diseases of the Skin, Cellular Tissue, &c.	2	...	1	3	10
12. Malformations	2	1	...	3	30
13. Premature Birth and Debility ...	26	1	...	27	227
14. Atrophy	31	...	...	31	133
15. Age	...	...	61	61	700
16. Sudden	7	4	5	16	143
17. Violence, Privation, Cold, and Intemperance	16	14	6	36	284
Causes not Specified	...	2	...	2	57

BIRTHS AND DEATHS.

	Births.		Deaths.		Births over Deaths.	
Males	792	1567	607	1213	185	354
Females	775		606		169	

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Small-pox ...	18	Paralysis	25	Disease of Spleen	...
Measles	29	Delirium Tremens	5	8. Nephritis	...
Scarlatina ...	9	Chorea	...	Nephria or Bright's Disease ...	1
Hooping Cough	65	Epilepsy	8	Ischuria	1
Croup	8	Tetanus	1	Diabetes	...
Thrush	2	Insanity	2	Stone	1
Diarrhœa ...	16	Convulsions	47	Cystitis	1
Dysentery ...	3	Disease of Brain, &c.	15	Stricture of Urethra ...	...
Cholera	...	5. Pericarditis...	5	Disease of Kidneys, &c.	10
Influenza ...	4	Aneurism ...	1	9. Paramenia ...	...
Purpura and Scurvy	2	Disease of Heart	60	Ovarian Dropsy	...
Ague	...	6. Laryngitis ...	3	Childbirth (see Metria)	6
Remittent Fever	3	Bronchitis ...	119	Disease of Uterus, &c.	3
Infantile Fever	1	Pleurisy	3	10. Arthritis	...
Typhus	35	Pneumonia....	98	Rheumatism	4
Metria or Puerperal Fever	2	Asthma	32	Disease of Joints, &c.	9
Rheumatic Fever	3	Disease of Lungs, &c.	12	11. Carbuncle ...	...
Erysipelas ...	5	7. Teething	14	Phlegmon ...	...
Syphilis	4	Quinsey	1	Disease of Skin, &c....	3
Noma or Canker.....	...	Gastritis	2	17. Intemperance	3
Hydrophobia	...	Enteritis	6	Privation of Food.....	3
2. Hæmorrhage	3	Peritonitis ...	1	Want of Breast-milk	4
Dropsy.....	24	Ascites.....	1	Neglect	...
Abscess	3	Ulceration (of Intestines, &c.)	1	Cold	...
Ulcer	2	Hernia	2	Poison	3
Fistula.....	...	Ileus.....	4	Burns and Scalds	4
Mortification	4	Intussusception	1	Hanging, &c.	3
Cancer	22	Stricture of Intestinal Canal	...	Drowning ...	1
Gout.....	...	Disease of Stomach, &c.	2	Fractures ...	14
3. Scrofula	3	Disease of Pancreas ...	...	Wounds	1
Tabes Mesenterica	13	Hepatitis.....	3	Other Violence.....	...
Phthisis (or Consumption).....	137	Jaundice	3	All Violence	26
Hydrocephalus.....	32	Disease of Liver	9		
4 Cephalitis ...	7				
Apoplexy.....	34				

The Deaths in the several Districts are as follow :—

Districts.	Population in 1841.	Feb. 22, 1851.	Sum of Ten Weeks.
London...	1948369	1213	10672
West	801189	179	1536
North	376568	250	1982
Central...	274199	216	1992
East	393067	285	2412
South	503346	283	2760

TO CORRESPONDENTS.

Many thanks for the obliging consideration of our friend, Dr. R.; but if there be one circumstance more than another connected with the conduct of this journal of which we are jealous, it is the reviews of books. For these we hold ourselves personally responsible, and therefore never delegate them but to members of our editorial staff. Our Correspondent will at once see the propriety of this rule, from which it is quite impossible, under any circumstances, that we can depart.

A Constant Reader.—The Apothecaries' Company will receive Candidates for the classical examination on their arrival in town; and the College of Surgeons at the age of 18.

Mr. Saunders' Paper, Mr. Guelike's, Mr. Forbes', and Mr. Startin's, will receive early insertion.

Perhaps Mr. Davis will write to us *for publication* on the subject of his note marked "confidential."

Dr. P. Stewart's letter reached us after our journal was made up for publication.

Mr. John Baker, of Somerville-house, Shirley, near Southampton, informs us that he has "discovered a means, safe, certain, and effectual, in inducing labour at any period of gestation, without pain or the use of medicine." We were not aware that there was any difficulty in a matter, the means of effecting which were well known. When Mr. Baker *details* his plan we will insert his communication. Mr. Baker, however, writes as follows:—"Should any *surgeon* desire to obtain an instrument such as I have used, I will have one made; and shall consider it my duty to furnish all public charities with one gratuitously on application."

E——s.—The course of education necessary to obtain the Diploma of the College of Surgeons, we believe, will cost somewhat less than £100.

Medicus.—Thanks for the civility.

[To the Editor of the Medical Times.]

Sir,—As controversial talent too frequently tends to mar the interests of those engaged in a two-sided question, I am induced to solicit your opinion in reference to those which have recently assumed a public character; and have the pleasure of submitting the annexed, which have appeared in some of the county papers:—

"Proposed Testimonial to Mr. Robert Gardener Hill.

"At a meeting of the Committee, formed for the purpose of presenting a Public Testimonial to Mr. R. G. Hill, late House Surgeon of the Lincoln Lunatic Asylum, on Wednesday, January 1, 1851, the Mayor of Lincoln in the chair, the following Resolutions were unanimously agreed to:—

"'1. That the "Total Abolition of Non-restraint System" in the treatment of the Insane, at Hanwell, and at other Asylums, has been proved by experience to be the system of humanity, and the best means for the recovery of the insane.

"'2. That to Mr. Robert Gardener Hill is attributable the high honour of originating such system, and the still higher honour of first practically carrying it out; and that, from this proof of its value and practicability, it has since been adopted with similar success at the Hanwell and other Asylums.

"'3. That this meeting highly approves of the propriety of bearing testimony to the merit of Mr. Hill in originating the system, and that measures be forthwith taken to present to him a public testimonial, in connexion with which it would seem desirable that the attention of the public be called to this mode of treatment as worthy of national adoption.

"'4. That the Mayor of Lincoln be requested to act as Treasurer; that the Lincoln Old Bank, and the Lincoln and Lindsey Bank, be also requested to receive subscriptions; and the Rev. John Daniel, Incumbent of East Ardsley, near Wakefield, and Mr. Hitchins, coroner, Lincoln, be empowered to receive communications and act as secretaries

"'5. That the above Resolutions be advertised in the county papers, the "Times," the "Lancet," and the "Medical Times."'

(Signed) "Charles Ward, Mayor."

The following is extracted from the "Stamford Mercury," of the 7th inst.:—

"As Mr. Hill deals in extracts, I will request you to subjoin the following from a Report which he prides himself upon,—it having been entered on the Board Minutes of the Lincoln Asylum:—'July 8, 1840. On succeeding to the office of House-Surgeon of this Institution, I found that the use of instruments of restraint had been dispensed with frequently for days together; sometimes much longer, as shown in my publication. I watched the patients and the attendants closely, and at last came to the conclusion that, if instruments could be dispensed with for weeks and months together, they might be dispensed with altogether. The House Surgeon before my predecessor had thought it necessary to restrain from six to seven patients daily. My predecessor reduced this number still lower, and had seldom more than one patient under restraint at one time. If the patients have since my appointment undergone numerous and daily abuses (as endeavoured to be impressed) for want of instrumental restraint, they must have been in the same manner abused during my predecessor's superintendence, for he reduced the number of restraints from seven to one: I merely from one to none.'—W. M. Pierce, A.M., a Governor of the Lincoln Lunatic Asylum, for more than twenty years."

You will perceive that a testimonial is proposed to Mr. R. G. Hill, to whom "is attributable the high honour of originating such system, and the still higher honour of first practically carrying it out." You will also perceive in the extract quoted by the Rev. Mr. Pierce, that Mr. Hill's predecessor (viz., Mr. Hadwen, a medical practitioner of this city) "reduced the number of restrains from seven to one; I (observes Mr. Hill) from one to none."

Does it not appear very evident to every observant mind that, had Mr. Hadwen continued the medical superintendent to the Lincoln Asylum a short time longer, he would have had lavished upon him the honour, not of originating the idea of "non-restraint," but simply that of abolishing the coercive system, by having only one case to contend with on his retirement from office.

With due deference to the parties engaged, and sincerely thanking you for the indulgence afforded me on the present occasion,

Lincoln. I am, &c., M. Redman, Surgeon, &c.

The Medical Directory.

[To the Editor of the Medical Times.]

Sir,—We have noticed the communication of the Rev. James McBean, and must conclude that he mixes up the duties of his clerical vocation with those of his situation as Secretary to the University of St. Andrews, in which said vocation it is demanded that his parishioners should be three times asked in church before they can obtain what they require,—namely, the interminable bond of Hymen. So, in like manner, we were under the necessity of asking three times for the information relative to the regulations of the University before we could obtain it, and then it certainly reached us, but too late for insertion. By this unpardonable delay on the part of the Secretary of a public Institution, we opine that we are the greater sufferers of the two parties, and have the greater reason to complain, for, of necessity, the reputation of the book for correctness suffers by such neglect.

We are, &c., The Editors.

"Medical Directory" Office, 4, Adam-street, Adelphi,

We shall resume next week our papers on the Irish Medical Charities Bill; meanwhile we offer our thanks to several correspondents in Ireland who have accorded to us their full approval of the views we take, and encouraged us to proceed in what our friend assures us "gives so much satisfaction to the Profession in Dublin."

Communications have been received from—

Dr. Forbes, of Burlington-street; Dr. Burrows, of St. Bartholomew's Hospital and Cavendish-square; Dr. Budd, of King's College and Dover-street; Dr. Maund, of Harlow; E—s; Dr. Roe, of Plymouth; Mr. Jeffreys, of Bath; Mr. Baker, of Shirley, near Southampton; Mr. Davis, of Galway; Dr. Merei, of Manchester; Dr. Stone; Dr. Mullar, of Edinburgh; A Constant Reader; Mr. Saunders, of the 47th Regiment; Mr. Startin, of Savile-row; Medicus; Dr. Robert Knox; Dr. Hughes, of Bedford; Mr. Redman, of Lincoln; Mr. Newnam, of Farnham; Dr. P. Stewart, of the Middlesex Hospital and Grosvenor-street; Dr. Balfour, of Cramond, near Edinburgh; Mr. Lloyd, of St. Bartholomew's Hospital and Bedford-row, &c.

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ORIGINAL LECTURES.

CLINICAL LECTURE ON MEDICINE,

AT

KING'S COLLEGE HOSPITAL.

By GEORGE BUDD, M.D., F.R.S.,

Fellow of the College of Physicians, and Professor of Medicine in King's College.

CIRRHOSIS.

Gentlemen,—During the short Christmas vacation, Benjamin Brown and Frederic Woodman, who had been for some time in the hospital, the former with cirrhosis, the latter with scrofulous enlargement of the liver, have died; and I wish to recal to your minds some particulars of their cases, now that I have an opportunity of showing you the diseased livers.

Brown was admitted into the hospital, on the 25th of October. He was a man of large frame, 64 years of age, and had spent all his life in London. His habits had been very intemperate. He told us, that until seven years ago he drank on an average half a pint of gin a day, and several pints of porter. During the last seven years, not being so well off in the world, he had drunk less.

Notwithstanding his hard drinking he had, he told us, good health till six weeks before his admission to the hospital, when he was taken with shivering, followed by severe pain at the pit of the stomach, and in the right hypochondrium, and by vomiting and purging.

The purging soon ceased, but the vomiting continued. The stomach rejected all animal food, but would retain a small quantity of gruel.

The pain at the pit of the stomach also continued, and was greatly aggravated by taking food.

A fortnight after the commencement of this illness, he vomited more than a pint of dark-coloured, clotted blood, and for some days from this time the stools were almost black, doubtless from the presence of blood.

A week after this loss of blood, that is three weeks before he entered the hospital, he became deeply jaundiced, had lost his appetite and became thirsty, and was much troubled with flatulence and hiccough.

His skin had long been somewhat sallow, but he never had decided jaundice before.

At the time of his admission to the Hospital, (October 25,) he had scarcely eaten any solid food for six weeks, and was extremely weak. The skin was of a yellowish green. The belly was greatly distended by liquid in the peritoneal sac, and the cutaneous veins passing upwards from the flanks were large and tortuous.

The epigastric region was tympanitic and very tender, and he complained of pain there passing through to the back.

He complained much of thirst, and had very little appetite, and still frequently vomited, especially after solid food. The tongue was dry and brown, and the pulse 80 a minute. The urine, which was deeply stained with bile, contained no albumen, but threw down an abundant sediment of lithate of ammonia.

Considering these various ailments, there could be little doubt that Brown had cirrhosis of the liver; which could, indeed, hardly fail to be produced by the hard gin-drinking in which he had indulged.

The existence of this disease explained the sallow complexion he had long had, and the large and tortuous veins on the belly, and the ascites. Such are the usual, and the most characteristic, symptoms of what, in London, is commonly and fitly termed the *gin-drinker's* liver. But the existence of cirrhosis alone would not account for the shivers, and the vomiting and purging, with which Brown's illness commenced; nor for the pain, and tenderness, and great irritability of the stomach that had existed ever since; nor for the vomiting of blood that occurred three weeks before his admission to the hospital.

In high degrees of cirrhosis, there is, indeed, often hæmorrhage from the stomach and bowels. The great obstacle to the passage of blood through the liver, that leads so constantly to ascites and to enlargement of the superficial veins of the belly, leads also to permanent congestion of the mucous membrane of the stomach and bowels; and occasionally, as a consequence, to hæmorrhage from it. But it seldom happens that much blood is vomited at once, as in Brown's case. The blood escapes little at a time, by oozing from the unbroken surface of the mucous membrane, and most commonly passes through the bowel unnoticed.

These latter symptoms led then to the inference that, in addition to the cirrhosis, which had doubtless been long making gradual and imperceptible progress, there was some more recent cause of disorder. The nature and course of the symptoms seemed to show that this was inflammatory, and that it involved the stomach and gall-ducts. On account of the great irritability of the stomach, Brown was kept strictly to a milk diet, and was ordered ten grains of sesqui. carb. of soda, with three minims of dilute hydrocyanic acid, three times a day.

Under this treatment the symptoms somewhat abated. The appetite became rather better, and the tongue rather less dry, and the vomiting less frequent, and the epigastrium not quite so tender; but he continued to complain much of weakness, and his nights were restless.

On the 30th of October he was ordered a pint of beef tea daily, in addition to the milk diet; and, in consideration of his weakness and restless nights, and former habits, three ounces of gin were allowed him.

On the 7th of November, the gin seeming to do harm, it was exchanged for an equal quantity of wine; and he was ordered two eggs daily, in addition to his former diet.

Soon after this he began to complain of a dry cough; the chest was often examined, but no other sounds were heard than those of very slight catarrh.

On the 11th of November he vomited some frothy mucus, streaked with blood.

Up to this time the pain at the stomach gradually abated, and the vomiting became less frequent.

On the 12th of November it was noted, "There is now no pain in any part of the abdomen."

The ascites, however, had increased, and the legs had become dropsical. The tongue remained dry and brownish; and the skin of the same yellowish green colour as on his admission to the hospital.

On the 16th of November the quantity of wine was increased to ℥vj. a day. The medicine he had hitherto taken was left off, and he was ordered five grains of nitre in conjunction with small doses of compound tincture of camphor three times a day, and an opiate at night.

He gradually grew weaker, without any striking change, till towards the end of December, when muttering delirium, the result probably of exhaustion, came on. This continued till his death, which happened on the 3rd of January.

When the body was examined, the belly was found to be enormously distended, and to contain within the peritoneal sac more than two gallons of a serous liquid of specific gravity 1010.

There was also great dropsy of the legs, but no dropsical swelling of any other part of the body.

The liver, which you see here, is in a high degree of cirrhosis. It is very small, weighing only 37 ounces, and its surface is roughened by the projection of small round nodules. When sliced, the cut surface presents a mottled appearance, from being thickly studded with very small, roundish bodies, the largest no bigger than a small pea, which are of various shades of yellow, and which are in strong contrast with the intervening substance, which has no yellow tinge. These variously coloured nodules are all that remain of the original secreting substance of the liver. The grey intervening substance, to which the liver owes its toughness, is mainly composed of adventitious tissue, the result of adhesive inflammation. In consequence of inflammation of this kind, lymph was effused into the areolar tissue in the portal canals. This lymph contracted, and became converted into the dense fibrous tissue you see here, which separates the lobules, or small masses of lobules, so that when the liver is cut across the whole of the secreting structure seems to be collected in detached nodules.

I have macerated some thin slices of the liver, so as to wash out the little round masses of secreting structure, and to leave the tough grey intervening substance. The operation has not been very successful, but some of the specimens may serve to show you how much of the organ is made up of adventitious tissue.

You may now form some conception of the degree of

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atrophy which the proper structure of the liver has undergone.

Notwithstanding that Brown was a man of large frame, the whole organ weighs only 37 ounces; and only a small portion of this is of the original hepatic substance.

The size of a liver in a state of cirrhosis, is very variable. The lymph effused into the areolar tissue of the portal canals, from which all the changes result, of course tends at first to augment the size of the liver; and, if much of this lymph be poured out at once, the liver may for a time be much enlarged.

But by degrees the lymph contracts, and the organ again diminishes in bulk. When this happens, the diminishing bulk of the organ is not owing simply to the diminishing bulk of the lymph itself. The lymph, in contracting compresses the portal veins, and impedes the passage of the blood to the secreting substance of the liver, diminishing its vascularity, and consequently its bulk. Many small branches of the portal vein it entirely obliterates, thus causing complete atrophy of the portions of the liver which these branches supplied.

It is to the shrinkage of the lymph itself, and to the diminished vascularity of the organ, and to complete atrophy of portions of its secreting substance, that the shrinkage of the liver is owing.

But in such extreme degrees of cirrhosis as in the case before us, the great atrophy which the liver has undergone does not fully explain the impairment of its function. The different tints of yellow which the different nodules present, shows that the tough adventitious tissue in the small portal canals, compresses the minute gall-ducts as well as the blood-vessels, and prevents the free passage of the bile through them.

It is by these conditions, taken together, that the deep jaundice of our patient Brown is to be explained.

The liver presented, indeed, other marks of disease. The gall-bladder was adherent to the intestine, from which it had to be separated by dissection, and the cystic duct was obliterated at a short distance from it; but there was no obstruction that we could discover to the course of the bile through the common gall-duct.

As often happens when the cystic duct has been long permanently closed, the gall-bladder contained a glairy fluid, not at all turgid by bile. Any biliary matter it might have contained when the closure of the duct took place had been completely absorbed.

When we came to examine the stomach, we found changes more interesting still.

The stomach was large, and the pyloric orifice slightly strictured by a narrow ring of dense white fibrous tissue under the mucous coat.

The narrowing of the pyloric orifice of course affords an obvious explanation of the large size of the organ.

The dense white tissue by which the narrowing is produced, is the result of inflammation, which was doubtless brought on, like that which led to the cirrhosis, by gin-drinking.

When the stomach was laid open, its inner surface was seen to be sprinkled with black flocculi adherent to the mucous coat. These black flocculi consisted of altered blood, which had oozed from the free surface of the mucous membrane, in consequence of the congestion of the stomach, produced by the impeded passage of the blood through the liver.

As I have before observed, an oozing of blood from the mucous membrane is the kind of hæmorrhage of the stomach that results from cirrhosis.

On the posterior wall of the stomach, about an inch and a half below the pyloric orifice, was the cicatrix of an ulcer larger than a shilling, not round, as ulcers of the stomach usually are, but an irregular polygon. This cicatrix had a dark-red margin, from an eighth to a quarter of an inch in breadth, in which were seen short lines radiating towards the centre of the ulcer, which were doubtless produced by the contraction of the ulcer in the process of healing.

Within this dark red margin the scar was of a dead white, contrasting strongly in colour with the mucous membrane of the rest of the stomach.

A little nearer the pylorus, on the same side of the stomach, was another scar, which was small and puckered, and seemed to have formed by the healing of a small round ulcer.

The gastric disorder from which Brown had suffered was now explained.

The pain and tenderness at the epigastrium, and the frequent vomiting and increase of pain after even small quantities of solid food, and the vomiting of blood that occurred before his admission into the hospital, were doubtless caused by these ulcers of the mucous membrane of the stomach.

The symptoms were just those which simple ulcer of the stomach commonly produces.

The ulcers were most probably formed six weeks before Brown's admission to the hospital, at the onset of those severe symptoms from which he dated his illness. They healed under the milk diet on which he was kept during the early part of his stay in the hospital.

Through what agency the ulcers were produced we cannot tell.

The condition of the liver and that of the stomach, taken together, afforded, then, a satisfactory explanation of the ailments and death of our patient. Our curiosity was satisfied.

But when a man dies at the age of sixty-four, after such an intemperate life as Brown had led, various other organs usually present marks of disease. It was so in this case.

The following were the chief of these morbid changes.

The spleen, which was rather larger than usual and very soft, had its capsule white and opaque, as if from inflammation of the same kind as that which had caused the cirrhosis of the liver.

The kidneys had undergone no marked change of texture; but at the upper part of the posterior surface of the right kidney was a cyst as large as a small orange, which was partly sunk in the substance of the kidney, and partly projected above it, and which contained a transparent straw-coloured, albuminous liquid.

This cyst did not differ, except in its larger size, from the cysts we so frequently find projecting above the surface of diseased kidneys.

The aorta was much changed by atheromatous disease, and at its arch and in its abdominal portion presented many ossific plates on its inner surface.

It is probable that this disease of the artery also was, in part, the effect of spirit-drinking.

The lungs were generally free from adhesions, but the lower lobe of the right lung was adherent to the diaphragm by recent lymph, and the right pleural cavity contained a considerable quantity of serous liquid of sp. gr. 1015. These changes were the result of inflammation, which was probably set up shortly before death.

You see that the serous liquid in the pleura, which is the result of inflammation, is of higher specific gravity than the dropsical serous liquid in the belly. This is in accordance with a general law. The specific gravity of the liquid of ascites from cirrhosis of the liver is seldom higher than 1013; while that of the liquid of pleurisy is always above this, and is sometimes almost as high as that of the serum of the blood.

The lungs were generally healthy, but in the upper lobe of each were a few small cretaceous bodies; the result of tubercles, deposited probably early in life. In examining the lungs of persons advanced in life, we every now and then meet with a few small cretaceous bodies of this kind in the upper lobes, and they afford proof that tuberculous disease of the lung, while of small extent, is not necessarily fatal.

I have now mentioned all the morbid changes in the body of Brown that are worthy of notice.

You observed the man almost daily for more than two months before his death, you heard his previous history, and you now know the condition in which the different organs of his body were found after his death. The case is complete, and it gives us information respecting several important diseases.

1. It exhibits to us the symptoms and effects of cirrhosis of the liver, produced by long-continued habits of spirit-drinking, and shows us that this disease, though fatal in the end, may come on slowly and imperceptibly, and may cause great changes in the texture of the liver before it disables the patient for his ordinary work. The disease existed in its highest degree in Brown; very little of the secreting substance of the liver was left; and yet he told us that until six weeks before his admission to the hospital his health had been good.

2. It exhibits to us the symptoms and some of the effects

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of simple ulcer of the stomach, and shows us that such ulcers may heal, if, soon after their formation, before they have acquired hard and thickened edges, the patient be kept for some time on a milk diet.

The healing of a simple ulcer in the stomach is impeded by many conditions; by the frequent fretting of the sore by the crude substances taken as food; by the frequent changes of volume to which the stomach is subject; and by the corroding action of the gastric juice; and, in consequence of the joint operation of these conditions, it not unfrequently happens that an ulcer of the stomach no larger than a shilling remains open for years, and at length destroys life almost suddenly by laying open a blood-vessel, and thus causing profuse hæmorrhage, or by eating through all the coats of the stomach, and thus setting up peritonitis that proves rapidly fatal.

3. The case of Brown shows us, as I have just stated, that tuberculous disease of the lung, when of small extent, is not necessarily fatal.

In the treatment of Brown, our attention was chiefly directed to improve the condition of the stomach; and in this point we succeeded. It is generally useless to attempt to get rid of the ascites that results from cirrhosis; and, if we had given Brown powerful medicines with this intent, we should unquestionably have done him much harm.

Having said so much of our late patient, Brown, I shall next call your attention to the case of Frederic Woodman.

[To be continued.]

ON A NEW EPIDEMIC EXANTHEM,

A CLINICAL LECTURE DELIVERED AT THE YORK MEDICAL SCHOOL, FEB. 25, 1851.

By THOMAS LAYCOCK, M.D.,

Physician to the York Dispensary, and Lecturer on the Theory and Practice of Medicine at the York Medical School.

Description of the Exanthem—Its General Prevalence—Illustrative Cases—Furuncular, Ecthymatous, and Carbuncular forms—Pathology—Facts from Alibert—of Equine Origin?—Analogy of Farcy—of Epizootic Origin?—The Branboil, Anthrax, and Pestis Carbunculosa—Origin of the latter as an Epizootic—its Parieties—Its Relations to the Erysipelatous Class of Fevers.—Is the Prevalent Epidemic modified Anthrax Fever?—Origin of Influenza and Puerperal Fever in the Cow—Hidden Relations of Epizootics to Epidemics—the Vaccinia and "Distemper," and others—Nature and probable Epizootic Origin of the Exanthem—Treatment.

Among the cases which have interested us at the Dispensary lately, you will remember certain individuals who had a furuncular or ecthymatous affection. It has been a very general observation, that boils are and have been unusually prevalent of late, not merely amongst the patients who are treated at the medical charities but in private practice as well. I gave you a promise some time ago that I would collect some special information for you about these epidemic boils. I have made inquiries with that view, and the result is, that I think we have a *new epidemic exanthem now prevalent*—new at least in this country, and therefore worthy our special notice. It is about a year and a half since I first observed this disease amongst the patients and domestics of a large private asylum, which I visit professionally. I was struck at the time by the unusual prevalence of boils in that Institution, but particularly by the circumstance that they were not limited to the patients, for even the children of the matron, as well as the servants and the attendants, came in for their share. It is no unusual circumstance for the insane to suffer from furunculi, or even carbuncles; but they do not all suffer alike, the disease being limited to the enfeebled and the cachectic. Now, in this instance, the robust suffered as well as the feeble. Concurrently with the boils there was an ecthymatous affection of the skin in some of the cases; and in one or two I think there was ecthyma only. The disease did not prove fatal in any case, nor was it anything more than troublesome and painful to the majority. It ceased to excite my attention, and had passed from my memory, until the frequent recurrence of the disease in practice led me to renewed thought and inquiry. I am now satisfied that the affection is epidemical, and has spread over a great portion of England. I have certain information as to the prevalence of the disease so far as Shropshire on the one side, and throughout Yorkshire and in the North of England on the other; and if inquiry were generally made, and the attention of the Profession directed to the disease, we should probably find that the whole island is more or less pestered with it.

The disease is mainly characterized by a succession of boils on various parts of the body, of various sizes, from a bean to a walnut. First there is what the country people hereabout call a "pleuk;" that is to say, a small hard pimple, with, perhaps, a vesicle or circlet of vesicles on the top. This itches; the top is scratched off; when it is found that there is a small tumour in or below the derma, which becomes larger, inflamed, very painful, and at last suppurates, with an eryaipelatous blush about it, and in bad cases with phlyctænæ. A number of these occur in succession on various parts of the body, but principally on the fore-arm, leg, and nates. Occasionally there is a vesicle only, which quickly puts on the appearance of ecthyma; and in one case at the Dispensary (in a child), there was just one large livid-looking phlyctæna, as large as a crown-piece, a solitary monster, of a startling aspect, so like gangrene it looked. Sometimes there is a solitary boil, large, angry-looking, and mischievous as a carbuncle. An aged lady, who came under my notice, had one of these on the mons veneris; and sometimes even the minor specimens are not to be distinguished from carbuncles. Very often after they have sloughed and healed they leave an indurated condition of the skin and subcutaneous cellular tissue, of a very unpleasant kind.

The eruption, whatever form it may assume, has a definite period of duration, and continues for from two to six weeks. The furuncular form is not always more chronic than the ecthymatous, but for the most part; the exceptions being those cases in which the patient is cachectic. It is not, however, as I have previously remarked, dependent at all upon a cachectic condition, for I have seen it in robust men and in very healthy children. Nevertheless, the cachectic suffer more from the disease, and perhaps they suffer also in greater numbers; but of this I have no certain information. In some instances you may clearly trace the localization of the boils to some local cause; for example, a crop will break out round a blister, or round another boil, if it be poulticed much, or round a burn. I have a case in which they have occurred on the neck, thorax, and upper arm of a young woman who has irritated her throat by the inunction of the iodide of potassium ointment; and another, in which a chronic psoriasis seems to have been the exciting cause. I suspect that any local irritation of the skin is sufficient to induce the disease in an individual within the sphere of the epidemic.

A medical friend tells me that he has suffered very severely in his own person from this "little plague," as he expressively terms it. He says "one of my boils had the base of the cone occupied by a small slough, just as occurs in a carbuncle; there was also a broad surface of brawny hardness, and the absorbents were inflamed above and below." He found the boils to be extremely painful, and has had nearly a dozen in such a situation, that he says that his "os sacrum even now reminds him of a raised model of Switzerland, so irregular is the surface." His attack was ushered in by constipation, with a coated and dark tongue, quite brown in places, like that of typhus.

Mr. Hutchinson, the acting house-surgeon of the hospital, has communicated to me a short notice of eight cases lately treated in the house, which illustrate principally the ecthymatous form:—

1. A farm labourer, aged 18, admitted for an eczema impetigenoides affecting the popliteal spaces, shortly after admission suffered from the eruption of a large crop of pustules in the same region, interspersed with boils. One of the latter left a troublesome sore on the malleolus externus. When nearly well, he had acute rheumatism (of which he had an attack a few months previously to admission), and this was followed by a recurrence of the impetigenoid eruption.

2. A married countrywoman, aged 50, was admitted with an eruption of ecthyma over both thighs, the labia, nates, and back. On the back and nates were several large and painful boils. She had been out of health for some time, had foul tongue, complete anorexia, cough, and bronchitic affection.

3. A man, aged 40, an out-patient, phlegmatic and strumous, in his ordinary health, had a large indurated boil on the left arm, very painful, and suppurating very slowly. When getting well, several others of a similar character appeared over the hand and arm. The brawn-like, indurated,

and little elevated condition of the affected tissues, gave the disease the character of small carbuncles.

4. A lad, aged 16, a farm labourer, ruddy and robust, applied as an out-patient, with an eruption of ecthyma interspersed with small boils, which commenced near the knees and spread upwards, covering the thighs, nates, and sides of the back. His tongue was coated, and his pulse a little quickened; otherwise he was in fair health. The eruption disappeared in about three weeks, leaving purple blotches and scars.

5. A young woman, aged 20, was an in-patient with inflammation of the bursa of the patella, which was treated by successive blisters. An eruption of boils commenced around the blistered surface, spread over the thighs and legs, and then attacked the elbows. Impetigo was scattered over the face and chest. This crop disappeared, and in about ten days another succeeded.

6. A man, aged 35, was an in-patient for a severe contusion of the left knee. When recovering, a copious eruption of very painful boils broke out over the thigh and leg, and a few on one arm. One situate just above the knee resembled a carbuncle. He was somewhat cachectic, and considerable fever, pain, and restlessness, accompanied the eruption.

7. A man, aged 37, in the hospital, cachectic, with suppurating inguinal glands, had, after admission, an impetigenoid eruption, with sloughing pustules, of such a size that they might be considered as small boils.

8. A man, aged 26, in the same ward as the last case, a highly strumous subject, with purulent ophthalmia, had several and extremely large painful boils on the upper extremities.

This epidemic has gone through the York Asylum, in common with others; and Mr. Metcalfe, the resident medical officer, has kindly supplied me with some particulars. It affected patients and domestics of both sexes, of all ages, and of each class, all, however, being alike well fed and comfortably clad. "Without feeling ill," (I quote Mr. Metcalfe's description,) "a slight uneasiness has been felt in some part, attracting little notice for one or two days, accompanied by a slight diminution of appetite, feeble pulse, pale but not coated tongue, and irregularity of the bowels. This has been followed by a slight or decided flush of the uneasy part, at first irregular in form and size, then deepening and assuming a circular or oval figure, having an elevated centre. If alterative aperients and tonics do not dispel these appearances, a varying amount of febrile action terminates about the fifth or sixth day from the onset in an unhealthy boil—in some cases solitary; in others, one of five or six, never more, the situation of these being the arms, legs, spine, head, nates, mons veneris, &c. Two cases present complications: a male having the finger and back of the hand appearing as if severely scalded, from the presence of three large vesicles; two of these contained serum of an ordinary appearance, the other a dark fluid. All redness subsided in two days, leaving only the vesicles. One foot in this case was similarly affected. In the other case—a female—in addition to a large boil on the spine, the legs were covered with small bright red spots, occasionally running into a large patch of darker colour, none of them being elevated."

From these and my own observations we may state, I think, that this eruptive disease appears under several forms:—1. There may be a solitary boil; such was the case of the old labourer who came from the country to the dispensary a week or two ago with a large boil on the point of the elbow, phlyctænoid, and presenting inflammation of an erysipelatous character, extending down the arm to the wrist, and upwards towards the shoulder. 2. A solitary phlyctæna, or several. 3. Several boils, varying in size and character up to carbuncles, without any other cutaneous disease. 4. Boils, with ecthyma, eczema, or impetigo; but much more frequently with ecthyma. 5. The boils differ, in leaving or not leaving behind them an induration of the skin and subcutaneous tissue. How long the disease has been epidemic is uncertain. I certainly observed it more than eighteen months ago. Its progress is slow, for the inmates of a house do not suffer from it in rapid succession, so that only one or two in a family are affected at one time, except where the family is large. Out of sixty or seventy inmates of the private asylum in which I first saw it, there were not more than 10 per cent. affected at once; and in some the disease was so trifling, that it would not have been noticed under ordinary circumstances—perhaps one or two small boils and no more. The country folk, I may say, think it is contagious.

We have now to inquire into the pathology of this epidemic, and our only present source of information is the recorded experience of the Profession. It has attracted so little attention, however—in this country at least—that I am not aware the disease has been described or noticed by any one. On the continent something analogous seems to have been prevalent from time to time, so that continental books may afford us information. Alibert's monograph on the Dermatoses contains some interesting statements, which have given me a clue, I think, to a probable explanation of the epidemic—of if not that, to such facts as should be borne in mind when investigating it for the future. Alibert nowhere mentions "furoncles" as being epidemic; he only observes that they are the most prevalent in hot and moist seasons, and in hot marshy districts. Yet he accidentally mentions circumstances which are of importance to our inquiry, as we shall soon see. An experienced army surgeon, who had served during many years in the French cavalry, told Alibert that boils were quite common amongst the cavalry soldiers, and that he had often known a great number to be attacked at the same time. This affection, he said, took place under all circumstances, in whatever state of health the soldiers were, and affected neither their appetite nor their spirits; nor caused any other inconvenience than wnat resulted from the pain. As the boils were principally on the nates, Alibert concludes at once that they were caused by the continual compression and friction of the part against the saddle. This, of course, might be an *exciting* cause, but as *all* cavalry soldiers are not pestered with boils on the nates, nor were the French cavalry referred to at *all* times, why did the exciting cause act? Alibert goes on to mention the case of an old Cossack, who had about a hundred boils on the nates and legs; but what was very remarkable, he says, and could only be attributed "*sans doute*" to the extreme "*sympathy*" which connects all the corresponding portions of the cellular tissue, boils appeared consecutively or simultaneously on other parts not exposed to the mechanical causes mentioned, as the back, neck, face, arms, legs, feet, &c.; and then, immediately forgetting that convenient "sympathy" (by which, by the by, we doctors explain everything that we do not understand) asks, Was it the ammoniacal atmosphere of the stables that caused them? or the habitual exhalation of the dust from the high roads, which, *as it is asserted*, causes the frequent boils observed amongst grooms and drivers who are continually employed about horses? It is curious to observe how his theory of *sympathy* leads him away from the one general fact contained in all the facts he relates—namely, the relation between the boils and the occupation of the sufferer—between the man and the horse. We have the compression of the saddle, sympathy, the ammonia of stables, the dust of the high roads, but not a suspicion that the disease *might* be communicated by their horses to the soldiers, the cossack, the grooms, and the coachman.

But, is it probable that a furuncular disease could so originate? you will ask. I think it is. Horses are affected with a highly contagious disease, which is often communicated to man,—I mean glanders; and it is worthy remembrance, that the skin-disease produced by it is ecthymatous and phlyctænoid, as you will see by this drawing. But horses are subject to another and chronic form of disease caused by the same poison, which is like a *furuncular* disease,—namely, the farcy. The boils are called *farcy buds* before they suppurate, and are of a scirrhous hardness: they have also inflamed lymphatics in connexion with them, which are termed "corded veins." They suppurate and slough like boils, and the pus or sanies discharged will cause either farcy or glanders in another horse inoculated with it.

But another question arises, namely, Is it probable that the present furuncular epidemic is of brute origin? To answer this, we have to consider some of the general facts of the subject. When domestic animals are numerously affected with a similar disease, it is termed an *epizootic*. There are several such. The small-pox of sheep is one of these; the pleuro-pneumonia amongst cattle is another. On the Continent these epizootics are of great importance, and have occasionally become destructive *epidemics*, by being communicated to man; they have extended from *zoon*, the brute, to *demos*, the people. Of this kind is the carbuncular disease termed by the Germans brandbeule—Anglice, *brand*-boil,—if we translate the term in the old English style, as in

the sentence "plucked like a *brand* from the burning." This term is applied to this form of boil or carbuncle, because the inflammatory action passes rapidly into gangrene, and the part affected becomes black. Hence it is also called Anthrax (the Greek for coal) or Anthracion, Carbo in Latin, and Charbon in French. This rapid destruction of the tissue affected has been likened also to a burning; hence it has been termed *Pruna*,—not merely a coal or brand, but *a live coal* or *burning brand*; the *ignis Persicus* of Avicennæ, le Mal *des Ardens*, *ignis* sacer and St. Anthony's *Fire*. The last name was given to it because Pope Urban II. founded the religious order of St. Anthony to relieve the sufferers. Alibert gives some interesting details respecting the wide and rapid spread of this epidemic. The population of Paris fled into the country, while the inhabitants of the country sought help in Paris. Those afflicted with it lost their extremities by gangrene. Indeed, it seems probable that the use of spurred rye for bread was as much a cause of the epidemic as a pestilential poison. Sauvage describes an epidemic of this kind as *Pestis carbunculosa*, and states that it occurs in country people who eat the flesh of cattle which have died of anthrax; also amongst those who have to attend them, or to do with their carcases, as herdsmen, farriers, skinners, &c. You will find a full description of this disease in Dr. Craigie's "Practice of Physic," taken from French and German writers. Dr. Craigie also describes after Strack a form of furuncular fever mentioned by Celsus,—the Epinyctis, or *night*-boil, which I cannot but think closely resembles the Pestis carbunculosa. The *Terminthas* described by Galen, a species of carbuncle, is expressly stated by that writer to have been epidemic. It is clear that the disease described by Pliny as epidemic in Gallia Narbonensis, and as destroying two persons of rank, is prevalent in modern times, if we lay any stress upon the statement he makes as to the seat of the carbuncle, namely, under the tongue, for this is the Glossanthrax of Sauvages. I have looked into some of the German books, and find that there is a febrile disease, known under numerous designations, which is highly contagious, usually characterised by a furuncular or carbuncular inflammation of the skin and subcutaneous cellular tissue of an erysipelatous and gangrenous character, and which attacks man and all domestic animals except the dog, even birds and fishes—as the tench—being seized with it. It may be considered as a malignant erysipelatous fever, originating with horses and cattle, allied to puerperal fever, hospital gangrene, &c., and dependent upon the presence of a septic poison in the blood. Like the various modifications of the erysipelatous poison, it appears differently under different circumstances; as, for instance, when it appears in cattle, as the epizootic *milzbrand*, or gangrenous splenitis; or if communicated to sheep by inoculation, as erysipelatous inflammation simply; or when it occurs in the phlyctænoid form alone, as the *vesicula* gangrænescens. Heme distinguishes three modifications in man of the carbuncular form—the anthrax fever, or carbuncle of gangrenous splenitis,—namely, 1. The mild form of a pustule, with a circular ecthymatous or phlyctænoid eruption of small vesicles, the pustule drying up, and the inflammation not extending below the dermis. In this form there is little or no fever. 2. The gangrenous form (pustula gangrænescens) in which the pustule passes into inflammation in and below the dermis, constituting the carbuncle; and 3. The sphacelous form, which is the genuine anthrax, and in which the pustule becomes livid or coal-black and dry, with large gangrenous phlyctænæ. In the two latter the fever is of the malignant type. There are other modifications, as the glossanthrax, in which a solitary carbuncle appears under the tongue. In some cases there is no eruption whatever, but the animal or the human being is struck down at once, and dies in a quarter of an hour. The disease appears also with variations in the phenomena according to the kind of animal attacked; but these I need not trouble you with.

Looking generally at the phenomena which our furuncular epidemic presents, I think we can see in it a family likeness to this epizootic group; in fact, if the malignant carbuncle were to appear in a mild and chronic form—if we could suppose it to be modified (as the variolous poison is modified to produce vaccinia), so as to be disarmed of its malignant and acute character—we should say, *à priori*, that it would assume just the characters of this furuncular epidemic. Within the last few years we have become more familiar with epizootics than in former years; and this is due, I believe, to the importation of the diseases with foreign cattle. What concerns us most as practitioners is, what pathological relations have these epizootic contagious fevers to those which attack mankind? Important as such a question is, I know of nothing like a sufficient answer. We are utterly in the dark about them, and yet, for anything we know, our most widely spread and most destructive epidemics may have their origin with brutes. Startling as this assertion may appear, I believe it is well founded. I have long suspected that epidemic catarrh has its origin in the pleuro-pneumonia of cattle. I have almost satisfied myself that puerperal fever will originate in the same quarter. Two or three years ago, I attended a modest, unmarried girl of twenty, in consultation with a medical friend, whose case was just like puerperal fever, except that she was not parturient, only menstruating at the time of attack. She died in about sixty hours, and the case was hopeless from the first. My friend had two parturient females under his care at the same time, both of whom I saw also in consultation with him. For a day or two after the girl died they were attacked with puerperal fever. Both these were most acute cases, dying in a few hours. We made inquiries respecting the first case, suspecting contagion, and found that she had been in close attendance upon a cow that had died of milk fever; in a shed almost within the house. This fact put the accoucheur on his guard, being satisfied that his first case in the girl was true puerperal fever, and probably derived from the cow. But a more interesting circumstance is this—that a poison communicated from man to brute, or *vice versâ*, may not produce the same phenomena. Thus, although there are points of analogy between the distemper in dogs and the variola and vaccinia in man, yet there is no nosological similarity; and yet it is a practice in this neighbourhood to protect valuable puppies from the "distemper" by vaccinating them,—that is to say, they *are* protected. Now, supposing that the poison causing the fever termed distemper was communicated to a child susceptible of its action from not having previously had an analogous fever, what form of fever would it excite? I am not aware that an inquiry has been made, or even a suspicion entertained, regarding the probability of pathological phenomena so resulting, and yet we might possibly sometimes explain in this way the supposed spontaneous origin of certain infantile fevers. With regard to the erysipelatous group, to which this furuncular affection seems to belong, I am not aware that there is one of the group so chronic in man as this is. It is the characteristic of them all to be acute, and of many to be frightfully acute—as in puerperal fever, malignant scarlatina, malignant pustule, human glanders, and others. It is, however, worthy of notice, that the latter horrible disease is more chronic in the horse in the form of farcy than this furuncular disease is in man; so that the mere duration is not an absolute objection against its admission into the erysipelatous group, while its epidemic prevalence and its phlyctænoid and ecthymatous modifications take it out of the class of ordinary boils. It is not by any means improbable, indeed, that it may assume in some districts the ordinary form of erysipelas, or even may not be accompanied by any cutaneous inflammation whatever; just as we have variola sine variolis, or scarlatina sine eruptione, or cholera asphyxia sine cholera. In this class of cases the disease might be expected to assume a rheumatic character.

I know there are practitioners who totally objec to this doctrine, that dissimilar phenomena may arise from the same febrific poison, more particularly on the ground that it strikes at the root of all our established general facts and principles. But in my general lectures I think I amply explained to you, that many of these so-called facts and principles are erroneous and untrustworthy; that, in fact, they prevent us comprehending more perfectly the true pathology and pathological relations of febrile diseases, and that, unless the doctrine I have referred to be an admitted principle in our inquiries, we shall really make very little progress; for we have to consider the whole group as blood diseases, of which the local inflammation, &c., are only varying symptoms.

I know that it is almost a painful thing thus to have your doubts raised on points regarding which all seemed to be agreed. But the fact is, that the agreement is only a seeming one, and is only attained by ignoring a great number of residuary facts, and quietly allowing a great number of assumptions; such an imperfect settlement of principles can only stand in the way of progress, and the sooner it is cleared away the better.

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From a consideration of the history of this epidemic, and of the analogous facts which have been recorded, I am of opinion that it is essentially a blood disease, caused by some specific poison. What that poison may be, and what its origin, are altogether uncertain; it may be from the atmosphere, or from our food, as American flour for example, or from the flesh of tainted cattle, or may be generated within the body by atmospheric peculiarities; or it may be a contagious *materies*, originating in the first instance with brutes, and then transmitted from one individual to another. If it be the latter, as seems most probable, then I think it is *strictly* contagious, like the glanders or syphilis, and not infectious also, or, in other words, not contagious through the medium of the atmosphere.

During several months past there has been an epizootic prevalent in this neighbourhood, affecting horses and cattle. In the latter the mouth and throat are so inflamed that the animal cannot eat, or the hoofs come off. The butchers and farriers call it a "lung disease," but it does not appear that the animals cough. The same disease is prevalent in Shropshire. It seems to correspond with the epizootic Maulweh and Klauenseuche of the Germans, and is accompanied with an aphthous eruption. According to Levitzky, persons attending on cattle attacked with this disease, or something similar, which he terms "angina catarrhalis," were affected with an inflammatory *rheumatic* fever (not with an angina catarrhalis), accompanied with a pustular eruption, and abscesses and ulceration of the lower extremities.

In treating this furuncular disease, you have little more to do, in ordinary cases, than to let it run its course, which is completed in three or four weeks. An occasional purgative and warm bath will be useful in allaying inflammatory action, and perhaps diminishing the number of boils. Two grains of calomel with rhubarb, colocynth, or scammony, twice a week, will be useful: in the more severe cases, the mineral acids and vegetable bitters must be added, and a good diet; the liquor of the amorphous sulphate of quinine in full doses with dilute nitric acid, has been found useful. In all cases, however, purgatives and the warm bath are beneficial. I do not think you do much good by direct applications to the boils,—as cataplasms, fomentations, irritating plasters, &c. So soon as suppuration is established, a free incision should be made into the boil, and then the water-dressing applied: care should be taken that the pus do not flow on the adjoining skin, and (as in erysipelas) that the sponges, &c., be not used by other patients or persons. The anthrax fever on the Continent is said to be disseminated by flies and other insects carrying serum and pus from the phlyctænæ and carbuncles to the skins of sound persons and cattle; for the poison will enter through the unbroken skin. This *may* be the case also with the pus and serum of this furuncular disease. I do not know that it is, and, therefore, good may be done by taking the proper precautions—certainly no harm.

ORIGINAL COMMUNICATIONS.

ON THE

MODE OF ORIGIN AND PROPAGATION OF THE EPIDEMIC CHOLERA, IN HUDDERSFIELD AND THE NEIGHBOURHOOD, IN THE AUTUMN OF 1849.

By JOHN TAYLOR, M.D. Lond.,

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Case 1.(a)—The first case of cholera in this neighbourhood occurred at the vagrant office, in the town of Huddersfield, on the 18th January, 1849. Francis Donoghue, aged 50, an Irishman, left Hull on Monday, 15th January, and walked in two days to Selby, where he arrived on Tuesday evening. He slept at Selby, and walked next day to Leeds. He had nothing to eat by the way but four raw turnips, which he got from a field by the way-side. On Thursday he walked from Leeds to Huddersfield, a distance of sixteen miles, and had nothing but bread to eat. He arrived at Huddersfield at 5 p.m., and was then well. His clothes were wet with rain, which had fallen during the day. At 10 o'clock the same evening he began to be purged, and had purging, vomiting, and severe cramps all the night. He had medical aid at half-past eight o'clock on Friday morning. I saw him at half-past three p.m., with Mr. Duke, assistant to Mr. Clarke, surgeon to the Union. Between this time and his death, which took place in fifty-seven hours from the time of attack, he was seen by several other medical gentlemen in the town. The symptoms were unequivocally those of Asiatic cholera. Copious vomiting; numerous abundant and liquid alvine evacuations, not however free from bile; severe and very general cramps; suppression of urine; the peculiar collapsed expression of cholera; husky voice; surface cold, livid, and covered with abundant perspiration; pulse barely perceptible at best, and during a great part of the illness not at all. No *post-mortem* inspection was made.

After he was visited professionally, he was placed in a room by himself. During the first nine or ten hours of the attack, other persons slept in the same room. The room was afterwards well cleaned, and the bedding, I believe, destroyed. The disease did not spread.

The man stated that the keeper of the house in which he lodged at Selby died of cholera, which was then, I believe, prevailing in that town. The period of the death of the person referred to could not be clearly ascertained, but it was within a few days before Donoghue's visit. Two men had also died in the next house. I believe the cholera was not in Hull at that time; for only one death from cholera occurred in Hull in the quarter ending March 31st, 1849.

It seems not unlikely that this patient contracted the disease at the house he slept in at Selby, unless (which is not probable) he had previously been exposed to the cholera poison at Hull. The operation of the poison would be favoured by the man's long journeys on foot, want of proper food, and exposure to cold and wet.

Case 2.—The next case, as far as I have been able to learn, occurred July 9th, 1849, in a female at Colne-bridge, a few houses with some mills, about three miles to the north-east of Huddersfield. The patient recovered. She was attended by Mr. Booth, surgeon, who considered the case to be one of cholera. She had been eating cucumbers and fat meat a little before the attack. There was no reason to suspect that the patient had been exposed to any source of contagion.

Case 4 (b) occurred in Huddersfield.—William Leonard, aged 38, a gardener, was attacked, August 22nd, at five a.m., with violent purging, vomiting, and cramps; collapse soon followed. This passed away, and was succeeded by consecutive fever, with delirium. He died comatose, August 28th. He was a very intemperate man, and had lived on beer alone for fourteen days before the attack, with the exception of a dinner of cold mutton on one day. For a month preceding the fourteen days he had practised total abstinence. He was attacked when in a beer-house, and, not being fit to be removed, he remained and died there. The patient's residence was in a back yard, or large court, in High-street. There was a privy in the yard in an offensive condition. He lived in a good house, and the locality altogether was far from being one of the worst. The water is good, being that used in the town generally. The drains were not bad. A fortnight before his attack, he was at Leeds on business. It is not known whether he was near any cholera patient when there. He was attended by Mr. Rhodes, surgeon, Huddersfield, to whom I am indebted for most of the facts I have stated.

This patient was waited upon by an old man—a drinker, and in bad health—but the disease was not communicated to him. The mistress of the house (who never saw the patient) and another female had some diarrhœa afterwards. The surgeon in attendance likewise suffered from diarrhœa for a day. He had no other cholera patient at the time. No case of cholera occurred near this place until September 22nd (see Case 37), and there was no apparent connexion between the two cases.

Case 5.—Mrs. Hardy, aged 60, was attacked August 26th. Had vomiting, very copious rice-water stools and cramps. She was attended by Mr. Tatham, and recovered. She

(a) The numbers prefixed to the cases correspond with the general table which will be found in a subsequent page, and indicate the order in which the cases occurred.

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resides in Lower Head-row, Huddersfield. The situation is low—part of the yard is dirty. There is one privy for five houses, and it was in an offensive state. The house is an old one, the drains are good, the water is good. This patient is in comfortable circumstances, and is not aware that she had been exposed to any source of contagion.

Case 8 (b).—James Atkinson, aged 49, cordwainer, was attacked with diarrhœa August 29th. After seven days this passed into cholera, of which he died in four days more. He was a very intemperate man. He took beer chiefly. Did not do a week's work for three months before his death, in consequence of drinking. He took very little food. He lived in Fountain-street, in the lower part of Huddersfield. There are one or two open privies near the house, which were in a very offensive state. Other houses, however, were nearer to the privies than the one in which he lodged. The water is good. It is not known that he had been exposed to the contagion of cholera.

The 9th case was undoubtedly one of Asiatic cholera, and occurred at Cliff-end, a small village two miles *west* of Huddersfield. Grace Bake, aged 29, married, and has several children. In the night between the 3rd and 4th September 1849, was attacked with diarrhœa, having to get up several times. At ten o'clock on the morning of the 4th September she washed her children. At half-past eleven o'clock, the neighbours, hearing a knock against the partition-wall, entered the house, and found her upon the floor. She was very soon visited by Mr. Holroyd, assistant to Mr. Machill, who afterwards saw other cases of cholera, and is satisfied that this was one. This patient was livid, had severe cramps, in addition to vomiting and purging. She died at six p.m., probably not more than seven hours after the symptoms of cholera appeared. No one had any communication with her after the disease was known to be cholera, but her husband, her sister, and the clergyman of the place, the Rev. J. W. Gibson, to whom I am indebted for many of the facts of this and other cases subsequently occurring in the same locality. Part of the linen used by the patient was burnt; the rest was sprinkled with lime before it was washed; the house was fumigated; the husband and children left it, and it has not since been occupied. About thirty persons in the adjoining houses were afterwards affected with diarrhœa, which the medical men ascribed to fright.

The linen used by Grace Bake was washed by her two sisters and another female. Two of these continued well, but a third suffered from diarrhœa, which began four or five days after washing the linen, and continued for some time.

After the most careful inquiry, I have not been able to discover any ground for supposing that this patient had been exposed to contagion. She had visited Leeds, but this was in the month of July. There were very few deaths from cholera in Leeds in July; the patient's husband had not heard that the disease existed in Leeds at that time; and the time which elapsed between Grace Bake's visit to Leeds, and her attack, (five or six weeks,) is too long to permit the supposition that the disease had been contracted there.

This case was the first that occurred in the district in which the patient lived. The house is situated on the brow of a hill, at a considerable elevation, and on the north side of a rather narrow valley. It is in a "fold," consisting of two short rows of cottages about twelve feet apart. At one end of the fold, there is a cow-house with an open drain from it. This is generally full of dirty liquid, and smells offensively. This drain is about eight yards from the door of the house in which the patient lived, and is nearer to another house in which there was no cholera. On the other side of the fold, not quite opposite to the house, and about fourteen yards from it, is an old privy, at present used as a receptacle for ashes, dirt, and other refuse. There is a well of good clean water in the yard, and another in one of the rooms of the house. The family used both. The water in the yard appeared to me very good—that in the house was described to be so,—but I did not see it. There had been no change in the appearance of either, and no reason to suspect any contamination. The water has not been examined with the microscope.

Several other cases occurred in this fold, but not until *nine days* had elapsed from the death of Grace Bake. They will be noticed hereafter. (See Cases 20, 23, 76.)

Case 10.—On the same day on which Grace Bake was attacked, and only a few hours later, the next case occurred in the village of Lindley, situated about a mile to the north of the place last described, and above two miles to the north-west of Huddersfield,—Mrs. Hirst, aged 53, the wife of a carcase-butcher in easy circumstances. Sept. 4, had diarrhœa all day, but without pain. In the evening, cramps supervened, and she then sought medical aid. She was attended by Mr. Holroyd, assistant to Mr. Machill, the surgeon of the place. She died at eight o'clock, a.m., on the 5th, in less, probably, than twelve hours after the diarrhœa had merged into cholera.

Mrs. Hirst was much afraid of cholera. She was greatly alarmed when she heard of the case which occurred only a few hours before she was taken ill herself. (No. 9.) It does not appear probable that there was any contagion in this case. I shall mention all the facts bearing on this point which, after careful inquiry, I have been able to elicit. Her husband had not been to buy cattle, or for any other purpose, to any place where cholera existed. She had paid a visit for a few days to Halifax, and returned about a week before her fatal illness. Her husband says she was not near to any cholera patient there. Halifax has been remarkably free from cholera during the epidemic. Whether *any* case existed there at the time of Mrs. Hirst's visit I am not able to say, but I believe there was no case. When at Halifax she had some looseness of the bowels to which she had been subject for several years.

A female relative residing at Hull paid Mrs. Hirst a visit in July. She came to Lindley about the middle of July, and staid a fortnight. The first case of cholera in Hull occurred on the 17th of July. Her husband died of cholera some time after her return to Hull, when the disease had become epidemic. More than a month elapsed between this person's departure and the illness of Mrs. Hirst,—a period probably too long to permit us to ascribe the illness of the latter to contagion derived from this source. No communication by box, parcel, or in any other way, afterwards took place between the parties.

Lindley stands upon elevated and gently-sloping ground, and has a population of perhaps from 1000 to 2000 persons. There are several circumstances about Mr. Hirst's house deserving of notice. Cattle are slaughtered in a building near to the house; the butcher's shop is within a few yards of the door, and the slaughter-house is under the same roof. There is an ash-place attached to a privy, also within a few yards of the door; into this are thrown blood, entrails, and other refuse. The smell was very offensive at the time of the cholera, and even at the time of my visit, six weeks afterwards. To the south of the house, and within twenty yards, was a dung-heap and a building for calves, with a good deal of liquid manure about it. This place was very offensive at the time of my visit, although it had been cleaned at the outbreak of the cholera. Two cottages are situated close to this filthy place, and their doors open upon it, yet no cholera occurred in them. Within forty or fifty yards of the house is a burying-ground attached to a chapel, but it is not at all crowded. At a distance of 200 yards there is also a place in which offal is boiled for pigs, and the smell from which is very offensive. The drains in the house are said to be good, and I did not perceive any smell from them. The water used for drinking and cooking is obtained from a spring at a little distance, which is also used by many other persons, and is said to be very good.

Only two other cases of cholera occurred at Lindley: the one on the 9th, the other on the 11th September. (See cases 16 and 19.) Both patients were in attendance upon Mrs. Hirst. About the same time, the cases of diarrhœa, many of them accompanied with rice-water evacuations, were very numerous.

Case 12.—William Rhodes, aged 44, a quarryman, was attacked Sept. 6th with cramps, purging, and vomiting. He never fell into a state of collapse, and he recovered. Mr. Allatt, who attended the man, considers the case to have been one of Asiatic cholera. The man resided at Clough, a little west of Paddock, and about half a mile east of the place where the first case in this district occurred (No. 9). He had worked at the railway near Huddersfield; he had had no known communication with any other cholera patient.

Other cases afterwards occurred at Clough, (cases 25, 33,

(b) It is stated in the report of the Registrar-General for the quarter ending September 30th, 1849, on the authority of the Registrar of Huddersfield, that the first case of cholera was registered on the 3rd of August, and the second on the 9th. This is an error. I have ascertained from the Registrar of Huddersfield, that the two cases referred to in his report are those marked 4 and 8 in my report.

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41, 45.) The place consists of a few small cottages, most of them only one storey high, without any thorough ventilation. The ground is elevated. There are no drains; the refuse is thrown on the surface. The water is procured from a neighbouring well, which is supplied by a spring at a distance; it appears to be very pure.

A nephew of the last patient, a blind boy, named Haigh, hearing that his uncle was ill, went on the first night of his illness to visit him, and, whilst in the house, was attacked with vomiting and purging. He returned to his home, about a quarter of a mile distant, at a place called "Johnny Moore-hill," where the epidemic afterwards prevailed with the greatest virulence. He procured some medicine from a druggist, and recovered. This case could not be said to amount to cholera, although the attack may have been due to the choleraic poison. If so, it is not likely that the disease was taken from the uncle, the period of incubation being too short; and no other cause can be assigned than the local or general epidemic influences beginning to operate about that time.

About September 22nd, when cholera prevailed in the adjoining houses, this boy, his mother, and several other children, left their home in alarm, and went to reside in the middle of the village of Paddock. They went to a daughter, who was married and had three or four children. They had only one room, and both families now lived in it, yet none of the daughter's family were attacked with cholera. The blind boy's mother had diarrhœa, which began before she left her own home, and continued after she joined her daughter.

Case 14.—Mrs. P. Ganter, aged about 35, was attacked September 9th, at 5½ a.m., with vomiting, purging, and severe cramps. The evacuations were very copious and like rice-water. Mr. Tatham, who attended her, has no doubt the case was one of cholera. He visited her eight times the first day. She recovered. This patient is not aware that she had been exposed to the contagion of cholera. She lives in Church-street, Huddersfield. The house is rather confined. Close to the back of the house is a mews, into which a window of the house opens. Near to this window was a manure heap, on which was thrown offensive refuse. There are also privies with open cesspools. The smell from these places was so offensive, that they were obliged to keep the back window always closed. The drains are not complained of. The water is that used generally in the town. It is brought from a distance of two or three miles, and is very good. There was no known contamination of it about the time of the patient's illness.

Case 16.—Mrs. George Crossland, aged about 30. On Sunday, September 9th, cooked the dinner, and partook of it, but before the afternoon service was so unwell as to be obliged to remain at home. She died about 9 p.m., after not more than about eight hours' illness.

She was the daughter of Mrs. Hirst, of Lindley, (Case 10;) lived in the same house with her mother, and nursed her. She was very much afraid of cholera during her mother's illness, and took brandy freely to keep it off. The day before her attack she took, of her own accord, some salts and senna as an aperient. This acted freely, and Mr. Holroyd, in consequence, sent her some laudanum. In the evening of the same day, however, she again took medicine containing Epsom salts. This patient may have taken the disease from the same causes which gave it to her mother, or she may have received it by contagion. In the latter case, the period of incubation could not have exceeded five days.

Case 17 occurred on September 9th at Lane, about half a mile from Huddersfield. The patient, Joseph Thornton, was attended by Mr. Booth and recovered. There was no known exposure to contagion. The situation is low and unhealthy.

Case 18.—Mrs. Walker, aged 60, resides at Paddock-brow, about half a mile from the nearest patient previously affected with cholera, was attacked September 11th, and was attended by Mr. Allatt. She was pulseless. I saw her September 23rd. She was still in bed and had diarrhœa. She recovered. This woman keeps a mangle, and rarely leaves her house. Had not been out of the row in which she lives for five weeks before her illness, nor more than two or three doors from her house for several days. Her house is situated from a quarter to half a mile from the place where cholera was afterwards most prevalent.

Case 19.—Mary Craven, aged about 35, lived at Lindley. A married woman, pregnant, and within a few days of her expected delivery. She nursed the only two additional patients who suffered in the same village, (Cases 10 and 16.) She also washed their bed and body linen. Was attacked with diarrhœa Sept. 11, at 11 or 12 o'clock a.m. Was seen professionally at 6 p.m.; at 7 p.m. had cramps, and died on the 12th, at 2 a.m. Her own residence was in one of a fold of cottages, and about twenty yards from the house of the patients she nursed. There was a heap of ashes and other refuse within a few yards of the door of her house. This patient was exposed to the same local influences as the other two, as well as to contagion. She was attacked seven days after the one, and two days after the other, of the patients to whom she attended.

Case 20.—A female, aged 72, living at Cliff-end, and in a house exactly opposite to Bake's (Case 9), and close to the bad-smelling drain. She was attacked September 13th, had the usual symptoms, and died on the 15th. If this patient caught the disease by contagion, the period of incubation would be nine days. She had no communication, however, with the only patient who was attacked before her.

Case 22.—A patient of Mr. Booth's; had the disease in Union-street, Huddersfield. Was attacked September 16th, and recovered. No other case occurred within about half a mile of this. No source of contagion was known.

Case 23.—The husband of the last patient but one (Case 20) was attacked next. On Sunday, September 16th, the day after his wife's death, was not very well. He worked on the Monday, but looked pale and ill. On Tuesday night he began to be purged, and died on the Thursday, at three or four o'clock p.m., after about forty hours' illness. It is stated, that not long after his wife's death there arose a suspicion that she was not dead. He then got upon the bed, leaned over the body, and put his face to the mouth of the corpse, to feel whether the breathing had ceased. The interval between the commencement of the illness of the wife and that of the husband was three days.

Case 76.—The next case at Cliff-end occurred in the person of the son of the last patient. Their houses are two doors only from each other. He had diarrhœa for about a week; became worse September 29th. Went to Huddersfield Oct. 2nd. He got some porter there; was much worse soon after his return home in the evening, and died on the 3rd, after an illness of about eleven hours.

The son of the last patient was attacked October 1st, (the day before his father's diarrhœa merged into cholera.) The case was not severe, and he recovered.

The sister and also the mother of the last patient had diarrhœa. The former began October 5th. Both recovered.

Two daughters of the old woman and man (Cases 20 and 23) washed the linen after their deaths. One of them has remained well. The other has long had an habitual looseness, and it did not become worse.

Case 25.—This was the second case, (the first was No. 12,) and the first fatal case, which occurred at "Clough," near Paddock. The patient was a female, aged 78. She died Sept. 17th, after 21 hours' illness. This patient was attacked ten days after the first case occurred near to her. Her son had come from Manchester a short time before. He was not ill. It is not known whether he had been near to any person affected with cholera.

Case 26.—Joseph Hinchliffe, aged 61, residing in the village of Paddock, was attacked Sept 17th. He had the cholera in a mild form, and recovered.

Case 27.—Mrs. Hirst, aged about 60. Was not well Sept. 16th. Was better on the 17th, and out of doors. On the 18th, at two o'clock a.m., began to suffer from the usual symptoms of cholera, and died about 4 p.m. the same day. She was attended by Mr. Allatt. I was sent for, but arrived only just after the death. This patient lived at Brierley Mill, near Paddock, about half a mile from any patient who had as yet suffered. The house stands in the bottom of the valley, close to both the river and canal, and not far from an old fish-pond, to be noticed hereafter. There was an offensive privy near to the house. The patient was in comfortable circumstances, and there is reason to believe that there had been no communication with any cholera patient.

Case 29.—Hannah Taylor, aged 55, was attacked Sept. 19th, at 10 or 11 o'clock, p.m., and died after 12 hours' illness. This patient lived at Paddock, in a part known by the name of "Johnny Moore-hill." This was the place where the disease raged with far greater severity than anywhere else in this district. The present may be regarded as

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the first case of the epidemic in this spot, although a previous case (probably one of diarrhœa only) has been already given.

Case 30.—Wm. Moss, aged 23, a railway labourer. Lodged in the house of the last patient, and they began to be ill within an hour of each other. He went to Huddersfield (about a mile distant) on the evening of the 19th; returned home about 11 o'clock; complained of cramps and diarrhœa. He died in 10 hours. This man left Paddock Sept 15th, and went to Eccles, near Manchester. He returned on the 17th. He said his mother, who lived in Lancashire, had had the cholera, but recovered. He did not visit her, and was not within two miles of her.

Case 31.—John Alpine, aged 34, a railway labourer. Resides at Johnny Moore-hill. Was attacked Sept. 19th. He passed through the stage of collapse, and died in the consecutive fever, after more than a week's illness.

Case 32.—Sarah Taylor, aged 23; married. Began at 4 a.m., Sept. 21st. Died after 19 hours' illness. She was the daughter-in-law of Hannah Taylor, (Case 29.) She lived near to Hannah Taylor, and nursed her. This patient was attacked in about 30 hours after the commencement of the illness of her mother-in-law.

Case 33.—Mary Tomlinson, aged 20, single. Resides at "Clough," near Paddock, about a quarter of a mile from the last patient. Was attacked at 6 a.m., Sept. 21. The disease was well marked. The patient recovered without consecutive fever. This patient lived in the same house with her grandmother, who died of cholera, Sept. 17th, (Case 25.) If she caught the disease by contagion, the period of incubation was within four or five days.

Case 34.—Allen Micklethwaite, aged 17, strong and healthy. Resides at Johnny Moore-hill. Came home from his work (about a mile distant) at 6 p.m., Sept. 21st, having had several loose stools during the day. At 8 o'clock I saw him in a state of collapse. He died in seven hours after his return home. Micklethwaites ascribe the introduction of cholera into their house to the blind boy (mentioned Case 9) who lived next door, and often visited them. If this were correct, the period of incubation would be not less than 14 days. It has been ascertained that this patient, although visited by us, was treated exclusively by a homœopathic practitioner.

Case 38.—Aaron Taylor, aged 55, was attacked Sept. 22nd, early in the morning. He recovered, after a protracted illness. He was the husband of Hannah Taylor (Case 29,) and the father-in-law of Sarah Taylor (Case 32.) There was an interval of about 58 hours between the attack of the wife and the husband.

Case 39.—Ezra Whitely, aged 2½ years, residing at Clough, near Paddock. Began Sept. 22nd, and died in four hours. This patient was dying when first visited.

Case 41.—Thomas Dyson, aged 16 months, residing at Clough. Had had diarrhœa for a long time. Became worse Sept. 22nd. Collapse and death, 23rd. This child lived next-door to Tomlinson (Case 33.) There was an interval of somewhat more than 24 hours between the beginning of the two cases.

Case 40.—Charles Potter, aged 23, railway labourer, residing at Johnny Moore-hill. Was attacked Sept. 22nd, at two p.m. Died in the consecutive fever after some days.

Case 37.—Thomas Wood, an engineer, was attacked in the morning, Sept. 22nd. Lives in the Dock-yard, at the bottom of Dock-street, Huddersfield—a low situation, and near the canal. Had been up at work all the night before the attack, and had taken some beer, but no food. He recovered. This man lived in the neighbourhood of, but was never in, the beer-shop in which Leonard (Case 4) died three weeks before he was attacked.

Case 35.—Mrs. Micklethwaite, aged 46. Began with diarrhœa on the morning of Sept. 22nd. Passed into cholera in the succeeding night. She recovered, after some weeks' illness.

Case 36.—John Micklethwaite, aged 44, husband of the last patient. Began with diarrhœa, at ten p.m. Sept. 22nd. Collapse succeeded in the night, and death after 17 hours' illness.

These two patients were the parents of Allen Micklethwaite (Case 34.) They both attended upon their son, and rubbed his limbs assiduously for the cramps. If the disease were caught from the son, the period of incubation in the wife did not, probably, exceed 12 hours, nor in the husband 28 hours.

Case 45.—Jane Dyson, aged 4½ years, residing at Clough, sister to Thomas Dyson (Case 41.) Began Sept. 23rd, at twelve o'clock at noon. Died in 18 hours. There was an interval of about 24 hours between the beginning of the illnesses of the two children.

Others were attacked at Johnny Moore-hill, but I cannot give the names and dates of attack of each. (See general table of cases, where the dates are now given.)

[To be continued.]

STRICTURE OF THE URETHRA, AND FISTULA IN PERINEO, CAUSED BY EXTERNAL INJURY.

By JOHN RENTON, M.D., L.R.C.S.E.

The history of the following case of stricture of the urethra, and fistula in perineo, may not be uninteresting in the present state of discussion on the surgical treatment of these affections. A considerable period has elapsed since the occurrence of the case, but the duration of time does not in the slightest degree affect the value of the information which it affords on the form, situation, cause, and termination of the stricture, nor detract from the practical bearings on the remedial means employed for its prevention and removal.

A case is instructive in proportion as it contains a faithful statement of every circumstance connected with its history until its final result. While every facility should be afforded for the diffusion of knowledge and the promotion of improvement, and that the golden rule should be liberally administered of "*Ferat, qui meruit palmam,*" it must never be forgotten that every innovation, in an experimental science like medicine, and especially in the operative department of surgery, must be carefully considered in all its relations, and submitted to the only infallible test, which time alone supplies, before it be recommended for general adoption. It forms matter of regret, that such a mode of investigation should not have been more rigidly pursued in the perineal question; for, unquestionably, there has been too plainly exhibited a desire of giving a hurried publicity to recently performed operations as accredited cures; but if the allegation be correct, that important particulars, unfavourable to their successful issue, have not been recorded, which are known to have transpired, it is unnecessary to add, that the withholding or suppressing evidence under such circumstances cannot be too severely exposed.

Without further remarks, then:—The subject of the case was a farmer, Mr. T. A——, a powerful and athletic man about 30 years of age. On the 31st December, 1823, he was precipitated into a saw-pit, in consequence of a small log of wood on which he was standing tilting up. He fell several feet with the whole weight of his body upon the perinæum. Division of the urethra,—the membranous portion of the canal below the symphysis pubis,—without external laceration, was the immediate effect of the accident. Pain, and difficulty of micturition, with discharge of blood from the urethra, soon followed, indicating the nature of the injury. By general and local antiphlogistic treatment, frequent application of leeches, fomentations, &c., &c., the violence of the symptoms were subdued, but the use of the catheter was required for the removal of the urine. I taught him the mode of introducing the instrument himself, as he lived at a considerable distance from me in the country, and explained the advantage which he would receive by continuing its insertion after the retention of urine had subsided. He gradually, however, discontinued its use. Matters remained in this state for a long period of time, and on my occasional visits I persuaded him to allow me to insert a common sized catheter, the attempts in doing which, I found, gradually became more difficult. The urethra, upon external examination, could be distinctly felt through the perinæum, at its division, where considerable increase in size and induration had taken place. A hard ring existed there, and from feeling, as well as from the difficulty in entering the instrument into the stricture, the divided extremities of the canal did not appear

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to have united in apposition. This condition of the urethra, with increase of constriction, caused the patient wholly to discontinue using the catheter, and the pain in passing it through the stricture made him at length unwilling to submit to its insertion by me. All remonstrance to him on my part, regarding the certain danger of occlusion of the canal, if he resisted the operation, was unavailing. He was determined to refuse all assistance from art, and to trust the cure to nature. By degrees, the calls to pass urine became so frequent, the difficulty to pass it so great, and the time in voiding it so prolonged, that the endurance of his sufferings were insupportable. Still he would not submit to the use of the catheter. He felt, he said, the urine come to the constriction, and, by rubbing the perinæum, got it to permeate by drops. He laboured under his unassisted sufferings for nearly ten years, with great reduction of strength, and irremediable injury to his constitution. At length, a large accumulation of matter formed in the perinæum, and in that condition he was brought to me in May, 1834. I freely opened the abscess, and discharged an immense quantity of pus. In a few days the urine was voided through the opening. The stricture could be distinctly felt by the finger through this opening, but I could not succeed, after repeated trials, in passing the smallest sized No. 1 catheter through it. Mr. Liston was called in, to whom I gave the preceding history. He was equally unsuccessful as I had been in inserting the smallest sized catheter through the contraction. On the introduction of his finger into the perineal opening, he felt distinctly the induration of the canal and the instrument, but, after repeated trials, he could not, with the most careful and persevering efforts, pass the smallest sized catheter beyond this. Failing with this instrument, he introduced a common sized catheter into the urethra, as far as the stricture, and, after enlarging to a small extent the external perinæal opening with a bistoury, he made a simple division of the stricture, and with the greatest ease passed the catheter into the bladder. The patient expressed himself overjoyed when he felt that the instrument had passed into his bladder, where it was retained by tapes for two days before it was removed. Little or no blood was lost during the operation, but the general state of his health had been so completely undermined and wasted, by protracted pain and want of rest, that he gradually sank, and died about three weeks afterwards. The insuperable objection to the use of the catheter by the patient, when the injured urethra was under its control, before the induration had increased under the particular form of the stricture, so as to render the canal impermeable to the passage of any instrument, accounts for the unsuccessful result in the means ultimately employed. The unfortunate termination of the case does not, however, mitigate against the operation, such as performed by Liston, for death did not appear to have been accelerated by its performance, but was the result of previous constitutional injury. On the other hand, the particular form of stricture must be one of rare occurrence; and the necessity of dividing the stricture forms no rule in vindication of the perineal section being resorted to in cases not complicated with the peculiarities of the one which I have narrated. Might not the use of chloroform be employed to great advantage in obviating such insurmountable opposition as the patient in this case urged, on the ground of pain, against the use of the catheter, and thus render all cutting-instruments unnecessary for the removal of strictures in irritable conditions of the urethra? It will not be questioned, I believe, 1st, that this was a case of impermeable stricture, so far as the word impermeability is used to denote the state of stricture in which it is impossible to insert a catheter, although the urine may ooze through it. 2ndly. That the division of the indurated portion of urethra by the bistoury was necessary, the neglect of the use of the catheter in the early stages of the affection rendering the operation the only means ultimately left to effect the removal of the stricture.

But, although this case is one which appears to justify the division of the stricture by the knife, it is unnecessary to add, that it does not affect the important questions involved in the perineal controversy—whether the adoption of the perineal section is called for in those cases of stricture through which a grooved staff can be introduced and is admissible in every part of the urethral canal; and whether the operation, under the most favourable circumstances, affords only temporary and not permanent relief—questions which experience only can solve.

ON BENEVOLENT AND PROVIDENT SOCIETIES.

By WILLIAM NEWNHAM, Esq.

The bustling activity of the last twelve months, in creating new institutions for the benefit of medical men, or their families, has been so great as to leave a doubt on the minds of many as to which institution is most worthy of their support; and therefore, very frequently, in compliance with the acknowledged indolence of human nature, these wavering minds finish by subscribing to none, and thus perpetrate, at once, an injustice both to themselves, their families, and their distressed brethren. It becomes necessary, therefore, to give a direction to these doubting minds, and to afford to all the opportunity of deciding where to give their support, as well as to supply motives for affording this encouragement. Will you pardon me for occupying a few columns of your valuable journal in considering these points a little in detail?

The institutions referred to may be divided into two classes: — I. Provident; II. Benevolent or Charitable. Each, indeed, may be said to be more or less benevolent, since each is a well-wisher to the class for which its provisions are intended; and from the promiscuous application of this term, much confusion has arisen in the minds of men; hence the importance of considering them apart.

I. Among the provident institutions of the day may be reckoned up,—1. The Society for the Relief of the Widows and Orphans of Medical Men (being members of this Institution) in London or its neighbourhood; 2. The British Medical Relief Fund, with its benevolent branch; 3. The Medical Protection and Benevolent Society; and 4. The Local Benevolent Funds, such as exist in Kent, Surrey, the Midland Counties, the West of England, the West Riding of Yorkshire, and elsewhere—all of which require membership, and are, therefore, strictly speaking, provident or mutual insurance societies, in which numbers combine to mitigate certain emergencies,—not knowing, *à priori*, on whom the hand of misfortune may fall.

Among these societies, the object of subscription may be—

(a) *Purely selfish*, as in the purchase of a deferred annuity, to commence at a period of life when its energies and activity may be supposed to be failing.

(b) *Selfish and relative*, as in those cases where the life is insured, or children are endowed, or an annuity is secured for a widow,—in all which cases present sacrifices are made for the future comfort and advantage of the whole or part of the dependent family.

(c) *Selfish and friendly*, as in the insurance against sickness,—a calamity to which many are exposed; but no one has the power of previously knowing on whom this calamity may fall, and therefore every subscriber gives his quota, with a knowledge that it may fall upon himself, and in so far is purely selfish, but also with the hope that he himself may enjoy good health, notwithstanding that others may be the sufferers,—in which event it is purely friendly; and this is the common principle of all the friendly societies in the kingdom.

(d) *Selfish and benevolent*, as in cases in which relief is given to those who are, or who may have been, members of the society for a certain number of years, or to their widows and families.

In societies thus constituted, it must be obvious that success will be dependent upon numbers, and upon a just appreciation of the risks to be incurred. We believe that the British Medical Relief Fund is a Society thus prudently guarded; and, as it is confined to medical men, it possesses a claim to support which no other similarly-constituted society can have—though perhaps this is not a real advantage, as the lives with which it has to do, professional lives, are confessedly not good, and are more liable than others to be cut short by disease or accident. Still, as it is a strictly mutual Society, and has no proprietary to be paid, and its benefits are limited within its own circle of brotherhood, it is perhaps to be preferred before any other similar institution. But, it is to be remarked, that the individuals who benefit the most largely are the sick and the short-lived; there is no possible creation of money—the long-lived lose, the short-lived gain—the healthy lose, the sickly gain; it is a calculation of chances, and, doubtless, many persons will be found glad to avail themselves of this chance; while others, whose

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resources place them above the prospect of want, will be pleased to become honorary subscribers to support a principle, which, in another class of society, and in their own immediate neighbourhood, they have been accustomed to patronise. It is, however, much to be regretted, that the sum for which an insurance may be effected in this fund is limited to 200*l.*; for, however useful and secure this may be to the fund, it is yet obvious, that such a sum will afford very little good to the family which is left behind, and for whose advantage this assurance was effected.

The relief, which under certain circumstances is to assume a benevolent form, is, as it ought to be, confined to members of a certain standing; so that preference is given, not to the urgency of distress, but to a certain number of years previous subscription to the fund. This is inseparable from a society thus constituted; and it is obvious, that it leaves out of its calculation all the misery which may accrue in the Profession for some years; and afterwards, all the aggregate amount of misery which shall hereafter arise beyond the narrow margin of its own membership. The effort is, however, one in the right direction, to make persons provident, or to provide for their own casualties; and the fact of having done so, if it operate upon a Christian and gentlemanlike character, will induce that being to contribute his mite towards the relief of those in distress who are not so happily provided for.

Now, it has been said that the former of these institutions, or the provident, "rests upon the common ground of humanity and professional brotherhood;" but it is not so. The common ground is that of self interest; this is the motive principle. A few will endeavour to encourage this provident institution upon the broad ground of philanthropy, but it will only be a few.

Persons usually combine upon the principle of relieving some who fall into difficulties, not knowing who those "some" may be, but feeling, especially in the early part of life, that each one (and therefore oneself) may be the individual for whom relief may be required, well knowing that the few sufferers are benefited at the expense of the many less suffering or more prosperous; and they do so upon experience, and a calculation that so many will become claimants out of so many contributors. If the calculations be just, the provident society prospers; if they be under the actual number, it prospers and accumulates; if they be over that number, it becomes poor.

But the originators of the British Medical Relief Fund felt that an exclusively provident institution could not meet the necessities of all the cases they had undertaken to provide for; and thus was the origin of their benevolent branch, restricted in its operation to the members of the Society and their families, in strict conformity with their constitution, which would not admit the extension of this benevolent relief without injustice to members.

What then is the obvious inference to be drawn from this well-considered constitution? What but that in the estimation of its originators, another Society was wanting, in order to relieve the necessities and misfortunes of those who were not members of the Relief Fund; and also demonstrating, that if these misfortunes could attach to those who were able in some happy measure to provide for themselves, *à fortiori*, must they happen more frequently, and with greater intensity, to those who had been unable to make such provision?

What then becomes of the assertion of a writer in your pages, who, in the exuberance of his zeal for this new Society, declares, that in this Society "medical men will find all the best requisites, both of personal providence and benevolence, and exactly suited to meet the evils which most affect them, both in their professional and social capacity?" As a provident society, indeed, it is entitled to all praise, and, as a supporter of its funds, I wish it every success. But let it not appear before the world in erroneous colours; as a benevolent society, it is exclusive, defective, and inefficient. It is exclusive, because confined to its own members; it is defective, because it takes no cognisance of nineteen twentieths of the misery of its own friends; it is inefficient, because it passes over a mass of wretchedness incalculable, without a possible effort to relieve it.

It is matter of much regret to me, who love to call everything by its right name, to see this assumption of benevolence in societies which have no title to the term; but which are invaluable in their department, as provident and mutual relief funds.

The Society for the Relief of the Widows and Orphans of Medical Men, in London, and all other similarly constituted societies throughout the kingdom, are admirable in their design; but they are all limited to their own members, rendered such by a certain number of years' subscription, and by a residence in a given locality, and it will be found that the aggregate of their members is absolutely insignificant as compared with the Profession at large; and, granting that in their small circle a certain amount of inappreciable relief to misery is yearly given, how great must be the amount of misery unrelieved throughout the Profession; —how all important must be a society whose sole object is to palliate the wretchedness thus dispersed at large! how imperative must it be to support the "Medical Benevolent Fund," whose entire object is the relief of this misery and destitution.

We are sufficient political economists to be aware, that a certain degree of improvidence may be fostered by eleemosynary aid; but we are equally sufficient economists to be aware that this improvidence will not be fostered by the Benevolent Fund, because its aid can never be relied upon; because it is only afforded to cases of distress, which have not been superinduced by improvident habits; because the amount of its aid can never be calculated; and because it is never continuous,—so that persons pauperised can have no reliance upon its distribution; hence its value to its immediate claimants in sustaining them under the pressure of temporary calamity; hence its unquestioned claim to support from every member of the Profession. But I am anticipating.

The British Medical Relief Fund, and the Medical Protection and Benevolent Society, have each of them ulterior objects for the education of the young, or for sheltering the aged and infirm, in all of which we heartily wish them success; but we should have felt more cordially towards these institutions, if their designations had been simply such as to reveal their grand object, and not such as, by the introduction of the term "benevolent," to create confusion in men's minds between that which is *provident and friendly*, and that which *is purely charitable and benevolent*, which brings me to notice more particularly

The Medical Benevolent Fund, an institution of pure charity, formed in 1836, for the relief of the distress of others, without any benefit, direct or indirect, to the Society, or its conductors, or its members, except that which returns into every man's bosom, from the consciousness of being useful to his fellow-man; without any claim to such relief, arising from membership, or influence, or any collateral aid; in which every case is judged by the intensity of its suffering; in which it is only necessary that the petitioner should be a regularly educated practitioner, that he should be in distress, and that he should be of good moral character. Claims on account of poverty and wretchedness which have resulted from, or have been augmented by, reckless and improvident habits, are at once dismissed.

The necessity for such an institution is shown by the claims of misery which are brought before the Committee at each one of their monthly meetings; but it is also proved in another way, viz., by the existence of the provident and semi-provident institutions we have contemplated; for, if these be necessary, (and, as far as I can ascertain, the whole number of members of such institutions in England does not exceed one-twentieth part of the Profession, and yet the claims upon their funds are considerable,) for the more provident part of our fraternity, how great must be the claim to sympathy and aid from the remaining nineteen-twentieths, who have not possessed either the will or the power of providing against these contingencies! Every subscriber, therefore, to one of these provident institutions, confesses the necessity for the Benevolent Fund, and, as such, acknowledges that he ought also to contribute towards its support. But does he invariably do so?

The cases presented to the Benevolent Fund Committee are often arising from the provident part of the community. Two such have been lately before the Committee—one, in which life assurance was vitiated by suicide; and another, in which it was swallowed up by the creditors of an insolvent, he himself having died of a broken heart. And are these cases to go unrelieved, because the misfortunes of sickness and of sorrow have overturned the integrity of one of the organs of the body, and conducted their victim to a premature grave? And are the widows and orphans of these hapless individuals to go without an expression of

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sympathy, or one effort to relieve them, because their mainstay was not a member of the Provident Fund? It cannot surely be; the human heart is not so adamantine as to refuse to lend an ear to such plaints, or to be indifferent to the blessing of him who is ready to perish.

There is, however, a great error which I find in your pages, in which it is said, that "the high-spirited contempt for money, and the daily exercise of the noble prerogative of charity, in our dealings with our suffering brethren, which distinguish us as a Profession, incapacitate us for a rigorous attention to the detail of figures, and a minute scrutiny of pecuniary contracts and engagements."

Now, valuing, as I do most highly, the dicta of your pages, I am constrained to ask, is this true? If true, I rejoice in it; and, if untrue, it is valueless and injurious, because it asserts a claim to character which, as a body, we do not possess. That it is true as regards individuals, I doubt not, but these are "few and far between;" and, to put its truth to the test, I appeal to each one of your readers, and I ask, what hast thou done to provide for thyself and thy family? and what hast thou done to relieve the wretchedness of those who have no means of providing for themselves? Hast thou availed thyself of the numerous modes of life insurance, and provided for those contingencies to which thou art or mayst be subject? If so, then thou hast done well for thyself;—charity begins at home; but it does not end there; and whether thou hast made provision for thyself, or deferred that provision for some future opportunity, I still ask, hast thou made provision for the sufferings of others? Hast thou, in the exercise of heaven-born charity, determined to forego this or that luxury—to give up this or that personal indulgence—to abandon this or that comfort—to curtail this or that agreeable expense, in order that thou mayst be furnished with the means of liberal support to the only purely charitable medical fund in existence in England—the Medical Benevolent Fund? It is certain, that at least nine out of ten must answer in the negative; and what then becomes of "our exercise of the noble prerogative of charity?" Alas! truth must say, that we will not deny ourselves, in order to relieve our starving brethren, —that we will not relinquish one comfort in order to dry the orphan's tear;—that we will not make one sacrifice, in order that we may cause the widow's heart to sing for joy, —that, like the priest and the Levite, we may look upon our brother's calamity and pass on,—that we may say, be ye warmed, and be ye filled, but will not afford the things necessary to supply his wants,—that we will not personify the good Samaritan, who was neighbour to him who fell into misfortune, but that we will turn a deaf ear to the voice of sorrow, and ignore its existence, rather than deprive ourselves of one customary indulgence.

This is a statement of unpalatable truth;—but it is truth; and, again, I appeal to each individual reader of this statement,—are you a subscriber to the Benevolent Fund? If so, are you doing your utmost to relieve this mass of professional misery? If not, O lose not a day ere you are enrolled as one of its annual supporters! As you value the respectability of the Profession,—as you value its character for charity and benevolence,—as you wish to support its attribute of self-denial,—as you would wish to sleep in peace, from a consciousness of having done all in your power to smooth the pillow of sickness and the bed of death, —as you would wish to hush the sorrows of humanity, and to enjoy in yourself the repose of the *mens conscia recti*,—as you wish for a quiet career on earth, and for the enjoyment of heaven beyond it;—O lose not another day in contributing your quota to this invaluable institution!

Subscriptions will be thankfully received by the treasurer, Mr. Newnham, of Farnham; by Messrs. Harris, Farquhar, and Co., bankers, London; by Mr. Churchill, 46, Princes-street, Soho; or by the collector for London, Mr. Large, 140, Sloane-street.

Farnham.

P.S.—It has been suggested to me as one means of increasing our funds for the relief of present distress, that in addition to our ordinary subscription, we should appropriate to this purpose all the fees which we receive from life insurance offices; this, in itself, would create a noble fund; and I shall only be too happy to receive such fees for such a purpose; as also grants of old clothes. These managed in a quiet unostentatious way by the treasurer or his family, are found to be exceedingly useful in maintaining the appearance, as a gentleman, of many an unfortunate brother, and enabling him to take a situation which, without such appearance, would be impossible. I shall be very happy to receive these, whether for adults, children, or ladies. All we find useful, especially to families emigrating.

W. Newnham.

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SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON COMPARATIVE OSTEOLOGY.

BY RICHARD OWEN, F.R.S.

Hunterian Professor to the College.

This Afternoon, March 8.—Lecture III.—Development of the Skull. Its stages, exemplified, with special superadditions, in the Ammocete, Lamprey, Rays, Sharks, and Lepidosiren.

Tuesday, March 11.—Lecture IV.—Persistent Notochord in Lepidosiren and the earliest extinct Fishes. Forms of the Centrum in ordinary Osseous Fishes. Characters and Divisions of the Vertebræ of the Trunk. Ribs and Costal Appendages. Modes of Formation of the Hæmal Canal in the Tail. Numbers of Vertebræ in different Fishes. Peculiar modifications of Vertebræ at the two Extremities of the Trunk. No Sternal Ribs or Sternum. Analogues of the Sternum from the Splanchno-Skeleton and Exo-Skeleton. Combination of Exo with Endo Skeleton in the Vertical Fins of Fishes. Modifications of the Fin-rays characterising the *Acanthopterygian* and *Malacopterygian* orders of Cuvier. Modifications of the Caudal Fin characterising the *Homocercal* and *Heterocercal* Fishes of Agassiz: prevalence of Heterocercals in the Older Secondary Strata. Ichthyodorulites. Spine of Ballistes. Adaptation of the unfettered vertically extended Caudal Vertebræ of Fishes to their Habits and Place in Nature.

Thursday, March 13.—Lecture V.—Bones of the Head in Osseous Fishes: large proportional Size of Skull, its general characters, and firm connexion with Trunk. Squamous Sutures of most of the Bones. Principal Prominences and Cavities of the Skull. Classification of the Bones of the Head. Determination of the Bones according to their Special and General Homologies. Final purpose of the modifications of the Cranial Bones in Fishes.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	March 8.—Medical Society of London. *Anniversary.* Oration by Richard Rowland, M.D. At the Albion Hotel, Aldersgate-street. Five o'Clock.	
	Guy's Hospital Physical Society. Eight o'Clock.	
	Royal Botanic Society. Quarter to Four o'Clock.	
Monday,	March 10.—Geographical Society. Half-past Eight o'Clock.	
Tuesday,	March 11.—Royal Medical and Chirurgical Society. Half-past Eight o'Clock.	
	Zoological Society. Nine o'Clock.	
Wednesday,	March 12.—Geological Society. Half-past Eight o'Clock.	
	Pharmaceutical Society. Nine o'Clock.	
Thursday,	March 13.—Royal Society. Half-past Eight o'Clock.	
	South London Medical Society. *Meeting of Council.* Half-past Seven o'Clock.	
Friday,	March 14.—Royal Institution. *Subject*:—Dr. Gull, "On some Points in the Physiology of Voluntary Movement." Half-past Eight o'Clock.	
Saturday,	March 15.—Statistical Society.—*Anniversary.* Three o'Clock.	
	Medical Society of London. *Subject*: Dr. Nunn, "On a Change which takes place in the Skin of the Legs of Persons affected with Certain Forms of Dropsy. Eight o'Clock.	

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THE MEDICAL TIMES.

SATURDAY, MARCH 8.

THE IRISH MEDICAL CHARITIES BILL.

HAVING in our two former articles upon this subject described the present position of the Dispensaries in Ireland, and offered some suggestions fearlessly and without favour or affection, as to the constitution of the proposed Medical Board, let us now see how the Profession and the poor will fare under the proposed measure of relief. As the dipensaries and other charitable institutions are at present distributed, the means of obtaining in-door medical relief in case of accident or disease are accessible to a comparatively small portion of the community. How, for instance, could a case of compound fracture, injury of the head, or strangulated hernia, be removed a distance of forty or fifty miles to a county infirmary? or a man labouring under typhus be sent to an hospital thirty miles off? If hospitals are to be erected by public money, they ought to be placed so as to effect general public good. The 17th and 18th sections of the proposed Act empower the Commissioners to create hospital districts, as well as dispensary districts. Thus a number of new charitable institutions will, it is expected, arise throughout the country; and if justice be done, hospitals will be established in many instances in remote country parts, where neither poorhouses, county infirmaries, nor the ordinary fever hospitals, are at present to be found. A threefold benefit must as a consequence arise. The sick poor will be more generally provided for; a number of medical appointments with fixed salaries, will be established; and the public at large will be benefited by having a better class of medical men to administer to their necessities; while, instead of the wretched hovels now used as dispensaries, each with two planks resting on barrels placed as a counter to separate the doctor from the crowd of old women that come to him, suitable houses must be erected. What the salary will be for attending a dispensary district is not stated in the Bill; but we know what it ought to be if respectable gentlemen are expected to accept it. In a rich and thickly-populated neighbourhood, or a town where a medical man may derive a tolerable income from private practice, or hold other appointments, we dare say the Commissioners will take such circumstances into account, and pay him accordingly; but where a medical man is expected to banish himself to the wilds of Connemara, or the fastnesses of Kerry or Donegal, with no other resource, and no private practice, his salary should never be less than 100*l.* a year.

According to the Bill amended upon the 6th of August last, the salaried medical officer of a dispensary or hospital district is required to examine and certify in cases of all dangerous lunatics brought before justices of the peace. This at first sight may appear an irksome, onerous duty; but with the admirable provision at present in Ireland for the reception of lunatics, the cases in which this gratuitous opinion may be required must necessarily be few; and we think it quite right that a public officer should be ready when called upon to certify in all such urgent cases.

We have heard it advanced, that district surgeons will be obliged to admit improper cases to their hospitals, being compelled to receive every person presenting the ticket of a governor; but, according to the 19th clause of Sir William Somerville's Act, it is "provided that if, at the next or any subsequent meeting of the governors after the admission of such person, the majority of the governors present shall determine that he is not a fit object for such relief, they shall have the power, if they see fit, to discharge him from such hospital; and it shall be lawful, in any case of sudden and urgent necessity, for the medical or other officer in charge of any such hospital to receive into it any person appearing to be a fit object for medical relief therein, subject to the further direction of the governors at their next meeting." Furthermore, the inspectors will examine the cases admitted, and report thereon from time to time.

It was our original intention to have reviewed the entire Bill as it was sent to the Lords at the conclusion of the sitting of Parliament last year; but, as we have reason to know that Sir William Somerville has very much modified his measures in the Bill which he is now likely to introduce, we shall not, for the present, proceed with our analysis, but confine ourselves to the consideration of the two remaining subjects we proposed to discuss,—the position and claims of the Infirmary Surgeons, and also those of the Irish Apothecaries.

In Ireland the days of the "Pures" are at an end, except in cities and some large towns, where a few physicians—and they are very few indeed—merely prescribe for what are termed medical diseases, and where there is a population extensive and wealthy enough to support some "special men." In small towns and rural districts medical men must be prepared to practise everything,—to prescribe, and very frequently compound, medicine, perform surgical operations, and attend midwifery cases. The public *will have* a General Practitioner; and in Ireland, for many years past, he has been an apothecary, with or without any other qualification, and this in consequence of the obstacles which, from the days of Vesalius to the present time, have been thrown in the way of obtaining degrees in medicine by Trinity College. In Dublin the School of Physic has heretofore been in a most extraordinary position; so much so that, in spite of the eminence of its great teachers—Macartney, Graves, Harrison, Montgomery, Barker, Law, and others—who, at different times, commanded large classes in their respective departments; their pupils were either Irishmen preparing for the University of Edinburgh, or English and foreign students attracted for a season or two by the reputation of the lecturer. The great mass of the students in medicine who have attended the School of Physic in Ireland for the last twenty years graduated elsewhere.

THE VACCINATION ACT AND ITS RESULTS.

SOME letters which have recently appeared in the columns of this journal, the Reports of the Registrar-General for the last six weeks, coupled with the proceedings of the Medical and Chirurgical Society at their last meeting, have brought to light a state of matters in this country, which seems to us to call loudly for investigation at least, if not for active interference. From these different sources we gather, that now, fifty-two years from the promulgation of Jenner's great discovery, and eleven years after the passing of an Act of Parliament intended to give effect to that discovery, small-pox is not only among us, but is apparently an increasing malady. Between 1841 and 1850, we find that 3422 persons afflicted with small-pox have been admitted into the Small-pox Hospital, of whom more than one half (viz., 1753) had been vaccinated. We further learn, that in London, and still more remarkably in the provinces, a repugnance to vaccination exists in the minds of a large number of the lower orders. We find that in Devonshire the Act to prohibit inoculation is evaded

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in a manner so cautious as to escape detection. We see that the Governors of the Small-pox Hospital have raised a building nearly twice the size of that which but a few years ago was thought fully adequate for all the wants of the metropolis. We find the superintendence of vaccination in this country divided between the Poor-law Commissioners and the National Vaccine Board. We find the public in this country permitted to follow their own inclinations as regards the practice of revaccination, without any guide or counsel whatever from the counstituted authorities. We find that an Act of Parliament prohibits, under severe penalties, the practice of variolous inoculation, (by which a mild form of the disease is almost certainly procured,) yet permits parents, in their dogged obstinacy, to withhold from their unconscious offspring the benefits of vaccination, at that very period of life when its advantages are most undeniably and most unequivocally manifest. By such passive resistance on the part of parents, children of tender years are liable to imbibe the disease in its most virulent form; and that they do so imbibe it and die of it in large numbers, is proved by the Weekly Reports of the Registrar-General. Yet neither the Poor-law Commissioners interfere to stop the growing evil, nor does the National Vaccine Board raise its voice; nor do we hear that the Secretary of State for the Home Department contemplates any measure for the melioration of such an unsatisfactory state of affairs. We think it our duty to draw the special attention of the Profession and of the public to these matters, and we hold that already a *primâ facie* case has been made out for careful investigation. We see no better way of effecting this, than by the appointment, by the Crown, of a Commission, charged to investigate the present condition of the country with reference to small-pox and its antidote, to inquire into the real efficiency of the present mode of superintending the practice of vaccination in Great Britain and Ireland, and above all, to receive evidence as to the actual working of the Vaccination Extension Act, and to suggest the means by which that Act may be rendered more efficient, and more conducive to the public good.

The facts now before us would certainly lead to the belief, that the Act regulating vaccination and inoculation in this country is very imperfect. It appears to us, that the law should be *imperative quoad children*, and *permissive quoad adults*, whereas, at present, it is just the reverse—permissive *quoad* children and imperative *quoad* adults. Children are permitted to run about the streets, and thus to expose themselves to the contagion of small-pox; while vaccinated adults, capable of thinking for themselves, and anxious to try the chances of inoculation, are strictly prohibited from so doing. The Vaccination Extension Act not only prohibits the inoculation of children (a prudent and perfectly justifiable exercise of authority,) but it also prohibits, under the same heavy penalty, the *"attempt" to produce small-pox, in any form, however mild, by the inoculation of vaccinated adults.* This appears to us to be a very questionable exercise of parliamentary prerogative, and to demand revision, now that the idea of banishing small-pox from the face of the earth has been shown to be utterly hopeless. Two important modifications of the Act, therefore, appear to be called for; the addition of a compulsory clause, enforcing on parents the obligation of having their children vaccinated, and the repeal of that clause which prohibits the inoculation of vaccinated adults.

We shall return to the subject in a future Number; but, in the mean time, we would strongly impress upon our readers the necessity of some inquiry into a matter of such paramount importance to the public.

LORD CAMPBELL'S "CHLOROFORM CLAUSE."

Lord Campbell appears to be a believer in the alleged robberies committed by means of chloroform. He has, accordingly, introduced a clause respecting it into a Bill for the better prevention of offences, which he presented to the House of Lords on the 24th ult. This serious method of treating the matter is only calculated to revive the groundless fears of the public, which have in a great measure subsided, and to add plausibility to the statements of persons who, having drunk too much, and fallen into bad company, awake next morning to a sense of the loss of property and reputation, and try to repair the latter by recollecting that a handkerchief was suddenly passed across the face.

Chloroform has a very distinct odour, and some pungency, and also causes certain alterations in the feelings before insensibility is induced; consequently, it cannot be given to a person without his full consent, except by main force. To give it by force, however, would be no easy matter, for a handkerchief could not be kept closely applied to the face until the person assailed was completely vanquished;—and then of course he might be robbed without the chloroform, the exhibition of which would be superfluous.

In the only two cases in which it has been clearly shown that chloroform was attempted to be administered with criminal intent, its only effect was, to lead to the detection of the culprit on the spot. In one of these instances a young man got his sweetheart to accompany him, at a late hour of the night, down a mews; he took out a phial of chloroform, poured some of it on a handkerchief and applied it to the face of his dulcinea, who immediately—less sweet than formerly—tore away the handkerchief, and cried out lustily for the police. The prisoner being admitted to bail, married the prosecutrix, to whom the worthy magistrate was prevailed upon to hand him over.

In the other case, a fellow at a coffee-house in Kendal got into the bedroom of an old gentleman who was asleep, and instead of letting him sleep on, as an old and sensible thief would have done, he began to give him some chloroform, the effect of which was to awake the person attacked, and arouse the people of the house. The culprit in this instance was sentenced to two years' imprisonment.

A crime was committed, it is true, in France, on a lady under the influence of chloroform, which had, however, been taken voluntarily, for the purpose of having a tooth drawn. Lord Campbell's Bill does not provide for such a case, but only for the unlawful application with intent to commit a felony: nor is it necessary to provide a new law; for, should a rape be committed in this country under the circumstances, it could be dealt with by the present laws.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The "opposition" were regularly beaten at the annual meeting of last Saturday; in fact, they found themselves in a glorious minority of more than two to one. But, be it so; the wedge of reform is now fairly fixed in the executive of this learned corporation; and soon we may hope to find its "offices of State" given, not—we will not say—to "undeservers," but to those who *have* worked for the Society, and by their talents and acquirements shed lustre upon its transactions. Mr. Lloyd having declared his determination, even if chosen, not to take office, Mr. Cæsar Hawkins was nominated in place of Mr. Hodgson, Dr. Roberts for Dr. Mayo, Mr. Dunn for Mr. Shaw, and Dr. Basham as Secretary, instead of Dr. Seth Thompson. The house-list, however, was carried, and a weaker council never yet ad-

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ministered to the affairs of the Society. Its fruits are still to be seen. A most eloquent farewell address was delivered by Dr. Addison, the retiring President, and the meeting adjourned with great good humour: not, however, we are happy to say, without voting to Dr. Hennen a piece of plate, for his eminent and arduous services in preparing an index to the volumes of "Transactions."

MEMOIR OF DR. JOHN REID.

(Continued from page 188.)

One of the ablest and most acute productions which emanated from the pen of Dr. Reid was a review of Professor Wattman's Treatise on the Entrance of Air into the Veins. It appeared in the *Edinburgh Monthly Journal of Medical Science* for August and September, 1844, and was reprinted in the collected works of Dr. Reid with the following note attached:—"I have been induced to reprint the above review of Professor Wattman's Treatise on the Entrance of Air into the Veins, as I believe that I have there given a fair and complete account of our knowledge on this subject up to the time it was written." In reference to this paper the following letter is interesting, as showing the manner in which Dr. Reid prepared himself for his work:—

"St. Andrews, May 28, 1844.

"My dear Cormack,—I can confidently promise you the review of Wattman on Air in the Veins by the middle of next month, and in time for the July Number. I have read it through, and marked the passages worthy of being commented on or quoted. I have also carefully looked over Nysten, Cormack, Amussat, Velpeau, &c., on the subject; so that I am very strong on all the points connected with it, and will write you a first-rate review. Wattman is really a good book, and contains some new facts, not in any of the English or French Treatises. I have not yet finished my dissections of *the monster*. I shall be very happy to join your club, and shall avail myself of your kind offer on Tuesday next, unless something very pressing indeed should come in the way. . . . . I understood you to say you did not wish a mere gutting review of Wattman, but an eclectic review of the *first* water. Is it not so? I have refreshed my memory by reading everything on the subject, and am now quite ready to begin it."

The club alluded to in the preceding letter was the Edinburgh and Glasgow Medical Club, which was instituted at an extemporaneous supper party at the house of Dr. Cormack, 131, Princes-street, after a meeting of the Medical and Chirurgical Society. The immediate occasion of the social meeting was a visit to that Society of Dr. G. A. Laurie and Dr. Alexander King, of Glasgow. It was considered by the gentlemen then present, that the establishment of a club which should meet alternately at Edinburgh and Glasgow would promote, in a material degree, a cordiality and friendly spirit between the two cities. This expectation has been fully realised; the club has comprised, and now comprises, the majority of the leading members of the Profession in the two cities. Country excursions have occasionally been made, and have been the means of bringing together the practitioners residing in many parts of the neighbourhood of Edinburgh with those whose sphere of practice lies in the larger towns.

In the winter of 1835, a crusade against the canine species was ordered by the municipal authorities of Auld Reekie, who little imagined that they were about to confer a benefit on science thereby. When the order went forth for the destruction of masterless dogs, Dr. Cormack was writing his work on creasote. He and Dr. Reid availed themselves of the opportunity to carry out some experiments on the physiological effects of this and other poisons. Immediately after the death of a terrier bitch her body was opened by the experimenters, who, to their surprise, found two fœtuses and masses of hair lying among and on the surface of the abdominal viscera; the uterus being empty and normal, and the ovaries plump and smooth. Dr. Reid carefully removed the viscera and carried them home for examination; and it is to this that allusion is made, nine years afterwards, in the following letter to Dr. Cormack:—

"St. Andrews, Dec. 15, 1844.

. . . . . .

"I suppose you have made all your arrangements for the forthcoming number, so that I may defer Matteucci until the February number. I have read the greater part of the work, and have marked the passages worthy of being quoted or commented on. I can safely promise you the 'Monster by Inclusion' by the time you mention, and since I have promised to do so you may calculate on it. The University appears, according to your account, to be *going quite a head* of you *extra* men. You may put it down as a fact that I am married."

The important event thus curtly alluded to took place on October 1st, 1844, when Dr. Reid was united to Miss Blyth, a lady eminently qualified to promote his happiness, and who subsequently proved herself, under the most trying circumstances, a truly tender and devoted wife.

The "Monstrosity by Inclusion" appeared in the *Edinburgh Monthly Journal* for September, 1845.

We have had occasion to allude more than once to Dr. Reid's kindness of heart, but no man was more jealously alive to the interest and the honour of the University which he adorned, and this feeling was unexpectedly called forth by the following circumstance:—Mr. Lawrence, in his evidence before the Select Committee of the House of Commons on Medical Education, spoke in disparaging terms of St. Andrews, stating it as his opinion, that it would be very improper to allow a person in possession of only a degree from the University of St. Andrews, "which I assume to be a place without a medical school and without an hospital, to practise his profession anywhere; and, if there is to be any law restraining parties from practising, that is a thing which ought to be prevented."

This roused the blood of Dr. Reid, and called forth a most spirited reply, in which he shows that the statements above mentioned were founded on an erroneous impression, that the Board of Examiners at St. Andrews require evidence of a full course of professional study, and that no degree is granted without a regular and stringent examination. This reply bears date August 23rd, 1847.

Hitherto we have seen Dr. Reid in the enjoyment of all that can render life agreeable—good health, a robust constitution, and an uninterrupted flow of spirits. His circumstances were easy, his time pleasantly occupied in researches alike congenial to his taste and beneficial to science, happy in his family, and beloved by a large circle of valued and distinguished friends. It is now our melancholy duty to turn to the other side of the picture, and to trace him, step by step, through disease and agonizing pain, till, at the early age of forty, we shall see him sink into the grave. Serious reflections cannot fail to arise in the minds of all who rightly read this sad history. May it cause the thoughtless to reflect; and may all emulate the virtues and resignation of Dr. Reid, and like him be ready to meet death as a Christian whose hopes are beyond the grave.

In the autumn of 1847, a small ulcer made its appearance on the side of the tongue, to which, for two or three months, he paid but little attention. In the beginning of the following February, however, he felt some misgivings as to the character of this spot, and visited Edinburgh to obtain the opinion of some of his friends. It was regarded as one of those ulcers that depend on a deranged state of the stomach; and, as the stomach was a good deal out of order, this view appeared satisfactory; accordingly, having provided his mouth with a silver plate to protect the sore from friction against the teeth, Dr. Reid returned home with an easy mind. Various remedies were taken, at the suggestion of Dr. Duncan and Mr. Syme, and the ulcer appeared for some time stationary, and even showed symptoms of amendment.

The winter session having closed, Dr. Reid visited the Lakes of Cumberland at the beginning of May, but not finding the benefit he anticipated, came on to London for the benefit of the opinion of Sir B. Brodie and Mr. Syme. On Mr. Fergusson coming home late one evening he found Dr. Reid awaiting his arrival, and in the course of conversation it was mentioned that a consultation between Sir B. Brodie and Mr. Syme had been arranged. The following day he saw Mr. Fergusson again, and informed him that the decision was, "more medicine," and that he should therefore go home at once. The opinion formed by Mr. Fergusson was, that the disease was malignant; but that there were no features in its character *at that time* to preclude an operation; and that if the medicine recommended did no good, the part should be removed with the least possible delay. He seemed, then, in tolerable health and spirits, and in June returned to Scotland, maintaining perfect silence, and avoiding every source of irritation to the affected part. A month was then passed at a watering-place in the south of Scotland, and it being found that neither the medicines nor other treatment produced the slightest improvement in the ulcer, he became fully convinced of the incurable nature of the disease. In July the tongue became exceedingly painful, and he lost flesh rapidly; at this time, and during the previous month, his time was principally occupied in the correction of the proof-sheets of his collected writings.

On the 31st of August, 1847, he went from St. Andrews to

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Edinburgh, to wait upon his friend Mr. Fergusson. They met accidentally in the street, and Mr. Fergusson was greatly shocked at the alteration for the worse in his appearance; his gait was tottering, and his nerves so shaken, that on recognising Mr. Fergusson he burst into tears. His friend put the best face he could on the matter, but, to say the truth, was sorely inclined to follow his example. Professor Bennett, an intimate and attached friend; had taken a warm interest in the case. He believed that the disease was not malignant cancer, and strongly urged an operation. The sufferer himself had expressed his willingness that such a step should be adopted; twice, we believe, certain of his Edinburgh friends went to St. Andrews for the purpose of operating, but declined doing so, to Dr. Reid's great disappointment. He was urged to go to London, and Mr. Fergusson wrote to him to that effect; at the same time stating his intention of visiting Scotland in August or September. Dr. Reid declined to come to town, on the ground of having so recently been there, but said that he would willingly avail himself of Mr. Fergusson's offer to see him, and to do what he could for him in Edinburgh. Dr. Reid came to Edinburgh with the fixed resolution of submitting to whatever might be proposed, and, on the evening before the accidental meeting above mentioned, had stated, at Sir Wm. Newbigging's, that "he was resolved to let Fergusson do what he thought right." At this time he was taking large doses of morphia each night, to procure rest and relief from pain. Dr. Newbigging had earnestly entreated him to come to Edinburgh for a few days, that he might have the full advantage of a thorough examination and consideration of his case by his professional friends. He came, as we have stated, and on his arrival his friends were much shocked by his wan and exhausted appearance, and apparent determination to conceal suffering, which, however, was but too obvious. After dinner he lay down on the sofa, and, with a view to prevent him from speaking, Dr. Newbigging read aloud for a considerable time. To this he seemed unable to give any attention; and it was remarked, that on several occasions during this short and painful evening Dr. Reid made use of chloroform by sprinkling a little upon his handkerchief—a true indication of the amount of his suffering. The following day, September 1st, he went to Dr. Simpson's to undergo the operation. Mr. Fergusson found on examination that the disease now involved more than one half of the side of the tongue; extending forward to near the apex, and backward to near the epiglottis, passing in the centre beyond the mesial line into the other side. It was an irregular, fetid, cancerous-looking ulcer, here and there elevated above the neighbouring healthy parts of the tongue, and with an excavation in the centre passing deep down in the direction of the sub-maxillary gland; the mucous membrane on the left side of the tongue was entire, but it was elevated by the tumour beneath. The mucous membrane between the cancerous sore and the gums at the right side of the mouth was redder than usual, but appeared free from disease. Dr. Reid was well aware of Mr. Fergusson's opinion as to the malignant character of the disease and of the probability of a return should an operation be performed. The opinion was expressed to him as follows:—"The disease, in so far as eye and hand can reach, is still within reach of the knife; and, under all the circumstances, it does seem a pity that you should be left to die without a friendly hand being stretched out to save. To settle all risk of jealousies, I will perform the operation myself: and thus, in addition to recommending it, take the responsibility of performing it." Dr. Simpson quite concurred in these views, and so did Dr. Reid; Dr. Bennett happened to be absent, but was known strongly to hold similar opinions; and the operation, being thus decided on, was proceeded with. It was anticipated that the excision would be more than usually formidable, from the extensive seat of the disease; but great reliance was placed on the firmness of the patient, and his willingness to give such aid as lay in his power in the securing of the vessels. Mr. Fergusson states that he never either himself removed, or saw removed by others, so large a portion of the tongue as in the present instance, nearly two-thirds being cut away. The loss of blood was of course considerable, but the operator was most efficiently assisted by Dr. James Duncan and Professor Goodsir. The relief afforded by Mr. Fergusson's operation was great and immediate, and the recovery rapid—Dr. Reid being able to walk about his room in eight or ten days, and to move out soon after. The intolerable pain which had tormented him so long ceased at once, and never returned.

Mr. Fergusson removed every perceptible trace of the disease excepting one suspicious point,—a gland about the size of a pea, which could be felt at the furthermost end of the wound, close to the root of the tongue. This *could* have been picked out, but it was close upon the carotids and internal jugular, as well as other important parts; and, as it was supposed to be only a lymphatic gland slightly enlarged from irritation, it was not deemed prudent to run further risk. Whether this was the nucleus of those enlargements which were afterwards removed, it is impossible to say; but when Mr. Fergusson saw him in London some two months afterwards, he was inclined to think it was. He remained in Edinburgh for some weeks after the operation. The following letter from Dr. Mackenzie will show the state of matters three weeks subsequent to that proceeding:—

"Edinburgh, September, 1848.

"My dear Fergusson,—I sat some time with Reid to-day; he was cheerful, and looks tolerably well. All that remains of the wound is a granulating surface, of the size of a shilling—quite sound in appearance. There was a little oozing at the separation of the slough, (the greater part of the cut surface having sloughed;) everything, however, looks well as far as the tongue goes. I wish I could say as much for the neck. The enlarged gland is increased in size, very hard, and so tender that he could scarcely bear me to lay my finger on it. A second indurated gland, too, has made its appearance on the right side, under the base of the jaw: it is about the size of a hazel-nut, but not tender on pressure. He ascribes this and the tenderness of the other gland to the irritated state of the wound; but now all irritation is gone, and the glands increase rather than diminish in size. He spoke a few words to me with wonderful distinctness. He is evidently very anxious that you should see him on your return, though he would not allow me to write this to you. . . . He is in amazingly good spirits, and said he was fit for anything. . . .

"Ever yours sincerely,

"R. J. Mackenzie."

Dr. Reid himself wrote as follows from Professor Simpson's:—

"52, Queen-street, September, 1848.

"My dear Fergusson,—Mackenzie has just called upon me with a view of furnishing you with the report of my progress. He will himself tell you how I look, and of the appearance of the wound. I am now making very rapidly strong again. I sleep well, eat well such food as the state of my mouth enables me to swallow, and I am infinitely more comfortable than before the operation; so that, if no other benefit should result from it than I have already derived, I shall not regret the operation. I feel unspeakably grateful to you for your services, and for your moral courage in undertaking the operation under all the discouragements opposed to it. If you return this way, it would afford me much satisfaction to take your advice about the gland in the neck. If I want it removed, (as I will do, if it does not show signs of diminishing in size,) I hope I will not find the same difficulty in getting the surgeons here to operate as was experienced in the case of the tongue.

"Believe me your very sincere friend,

"John Reid."

As the wound did not entirely heal, Dr. Reid came up to town soon after, to see Mr. Fergusson, and the application of sulphate of copper speedily produced a firm and healthy cicatrix. At this time there was a swelling in the neck over the external carotid and its main branches, which was then supposed to be chiefly the result of inflammatory action. Under warm-water dressing the swelling abated considerably, but this only made the hardened gland more conspicuous; still his spirits were good, although when he came to town he was still weak from loss of blood and previous suffering; in a few weeks he became robust and hearty. Mrs. Reid was with him, and in her society he visited Dr. Carpenter, Dr. Cormack, and other friends, and he went to Windsor and various places of interest in the neighbourhood of London.

He thus wrote to Dr. Cormack on Oct. 12, 1848:—

"Mrs. Reid and I hope to leave by the railway for Putney by the train which starts from the Waterloo Station at a quarter-past one o'clock. If you are not at home on our arrival, have the goodness to leave out the sheets of the volume I am printing, as I have received an order to transmit to the printer, as soon as possible, a table of contents, and I wish to send it off by the afternoon post. Fergusson thinks the swelling in the neck is diminishing as rapidly as could be expected, and is not at all disposed to interfere with it at present, in any respect. He willingly agreed to my proposal to return to Scotland for a little, and I have arranged to leave on Wednesday, first, at two o'clock p.m., by the Dundee steamer."

Dr. and Mrs. Reid remained at Putney from the Saturday afternoon till the Wednesday forenoon, and during that period Dr. Reid was not only entirely free from pain, but in robust health and excellent spirits. By day he was active both in mind and body, occupying his time with the final revision of the last sheet of his volume, and in taking several long walks. The evenings were occupied with cheerful and profitable conversation, intermingled with much riotous fun with a merry group of children. Amid peals of laughter, in which he loudly joined, he would toss them in his arms, or, with one perched on each shoulder, chase the others

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round the room. There were, however, moments of deep seriousness, though not of despondency or sadness, especially when explaining privately to Dr. Cormack the views which he entertained regarding his disease, and pointing out to him the state of the neck and the seat of the operation. He seemed very anxious to express strongly and frequently his gratitude to Drs. Bennett, Simpson, and other friends, who had sanctioned the operation which had given him a fresh lease of life, and in particular to Mr. Fergusson, for performing it. He enjoyed one evening very much, when Dr. Marshall Hall and Dr. Tyler Smith joined the family party. His admiration for the genius of Dr. Hall was unbounded, and if it had not been for his disabled tongue, and the difficulty which he experienced in speaking, some animated discussions would have ensued on muscular contractility, and other points on which the two great physiologists disagreed.

Dr. Reid parted from Mr. Fergusson with the understanding that, if the tumour in the neck did not abate, it was to be removed. The following letter will explain his further progress :—

"St. Andrews, 7th Nov., 1848.

"My dear Fergusson,—I intended to have written you last week, but, on my return from Edinburgh, on Friday last, I found my little boy dangerously ill, and he is still so, and you may readily conceive that he has occupied all my thoughts.

"My health is keeping excellent. The tongue is as you saw it, and the glands have undergone no decided change either one way or the other. I do not think they are larger; on the other hand, I think they are somewhat smaller, but of this I am not sure. I have no pain nor uneasiness in them. As I am a bad judge of any changes in them, as it is impossible for me to avoid an occasional examination of them, and as I am therefore not so likely to detect the differences in their character which an interval of a few days in their examination might furnish, I have asked one of the medical men here to examine them carefully, and I shall hear what he thinks of them in a few days. Syme and Duncan seem pleased with the appearance of the tongue. . . . My case has excited great sensation here in Fife, and Mr. Fergusson's name is in everybody's mouth.

"Believe me, my dear Fergusson,

"Most faithfully yours,

"JOHN REID."

On the 15th of November, he lost his son, an infant eleven months old—a bereavement which caused him acute mental anguish, and doubtless exerted a prejudicial effect on his health. On the 29th of November he underwent another operation, the particulars of which are thus narrated by him to Dr. Cormack :—

"Edinburgh, 55, George-square.

"My dear Cormack,—Your very kind and friendly communication was sent me from St. Andrews last night. I came here (to Goodsir's) on Tuesday evening. The glands in the region of the sub-maxillary gland began, about eight days before I came here, to enlarge decidedly, and I determined to have them cut out. As they seemed sufficiently defined and movable, I made up my mind at once to proceed to Edinburgh, and ask Duncan and Goodsir to cut them out, as it would be very inconvenient for me to go at present to London; but if they refused, then I must go to London. Duncan agreed very unwillingly, and he and Goodsir and Spence proceeded to work next morning (Wednesday); and, after a dissection of about three-quarters of an hour, removed all the upper set of enlarged glands. This mass was chiefly composed of the sub-maxillary gland, not diseased, pushed downwards by lymphatic glands, some of which were tainted, others were not. The facial artery was tainted. I am going on well, and everything looks like a good recovery from the operation. In fact, I sit up a great part of the day. I wrote to Fergusson on Monday last, stating to him my intention of proceeding to Edinburgh. . . . to F. my obligations in this matter are inexpressible."

The following letter carries on the narrative :—

"Edinburgh, 9, Brunstsfield-place, Dec. 11, 1848.

"My dear Fergusson, — The wound from the operation is nearly healed, and I am not a bit the worse of the operation; I took a long walk into the country yesterday. My appetite is good, and I am quite strong. I could, as far as strength is concerned, return to St. Andrews immediately, but I wish to pay a visit to Linlithgowshire first; so that it is likely that I shall not return for eight days. I took the hydriodate of potass faithfully from the time of my arrival in St. Andrews from London until I left St. Andrews to have the glands cut out. I shall write you in the course of a fortnight or so informing you how I am.

"Believe me, my dear Fergusson, your faithful friend,

"JOHN REID."

The hopes that all the disease had been removed were destined to be blighted; and, as there were certain glands which still bore a threatening aspect, Dr. Reid determined to submit to a third severe trial, the particulars of which are now before us in his handwriting.

"Edinburgh, 9, Bruntsfield-place, Jan. 6, 1849.

"My dear Fergusson, — On Monday last (New-year's Day) I got *beastly* drunk with chloroform, during which Duncan, Goodsir, and Spence, cut out the remainder of the enlarged glands, so that there is now a clean sweep made of them. The lower and largest gland had considerably diminished since I saw you in London, and was so far moveable, that it could be pushed to the outside of the carotid artery, so that it was clear it had no close attachment to the carotid, though it could not be pushed so far as to make it quite clear that it might not be pretty closely attached to the internal jugular vein. In dissecting it out they found it adhering pretty closely over the vein, but succeeded in removing the whole of the enlarged glands very satisfactorily. A great part of the enlarged gland was converted, as in some of the last cut out, into a thin creamy looking matter; and Bennett says that the epithelium cells were in the act of being converted into fat, that they were filling with fat, and would probably in a short time have formed a mass of fat cells or adipose tissue. Whether this view be correct or not, it appears, as far as one can judge from this case, that this epithelial disease makes less rapid progress in the glands than in the tissues primarily attacked. The wound is healing rapidly, and, as far as one can judge, the mouth keeps as when I saw you last in London. I hope that after this triple operation, I may be allowed some respite. I have at least not shrinked from the application of those means which have been thought advisable, and I now calmly leave the result to Providence.

"Your sincere friend,

"JOHN REID."

"St. Andrews, Jan, 19, 1849.

"My dear Fergusson,—I wrote you nearly a fortnight ago, that I had got the rest of the enlarged glands in the neck extirpated. I have been at home here for the last eight days, or rather since last Saturday. I am quite strong, and have been taking a round at golf, in our far-famed Links, those days that the weather permitted. I have a capital appetite, sleep like a top, and am altogether a different person since you took me by the hand. I hope I may have as favourable a report to give you of myself a month or two hence. In the meantime, I feel most grateful for the relief I have experienced through your aid.

"Believe me, my dear Fergusson,

"Your sincere friend,

"JOHN REID."

Alas! this is the last cheerful letter written by the sufferer to his friend. Would that it had been permitted to him to have been able to fulfil the hope he expresses; but it was otherwise ordained. The following letters to Dr. Cormack and Mr. Fergusson, written on successive days, announce the return of the ruthless disease :—

"St. Andrews, Jan. 29, 1849.

"My dear Cormack, — . . . Within the last two or three days I have noticed some hardness and uneasiness in the base of the tongue and pharynx, which give me a feeling of great insecurity. It is out of the reach of an operation, or I would have it performed. I wrote Fergusson a few days ago, in which I gave him a very flattering account of my condition, for I had not then made this discovery. A short time will decide whether it is a return of the disease or not; and in the meantime I must endeavour to wait patiently and submissively the result; but I do not conceal from you that I fear the worst. No doubt this sudden blasting of all the hopes that I had begun to cherish that my life might be prolonged a few years longer, is hard to bear; but I hope, through divine aid from my Lord and Saviour, to be able to bow submissive to the chastening rod, and to resign all that is beloved and dear to me on earth, with the hope that we may be re-united in a better world to part no more. Though I have expressed to you freely my suspicions of the worst, I am anxious that you should not say *much* about them until I have watched the suspected parts a little, and have satisfied myself more fully of the nature of the changes there. . .

Your very sincere friend,

"JOHN REID."

The letter to Mr. Fergusson enters somewhat more minutely into the condition of the parts. It is equally remarkable for the truly Christian resignation which it breathes.

"St. Andrews, 30th January, 1849.

"My dear Fergusson,—I have a less cheering account to give you of my health than I did a few days ago. Feeling some uneasiness in the back part of the tongue and pharynx for some time past I paid little attention to it, as I believed it arose from the second operation, when the sub-maxillary gland was removed. As the uneasiness increased within the last few days, I examined it more attentively with my finger, and found a hardness at the base

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of the tongue and along the inner wall of the pharynx, which presents many of the characters of a renewal of the disease. This was of course a sad damper to the hopes I had begun to entertain of ultimate recovery. Unfortunately, the position and diffused character of the hardness render its extirpation impossible, otherwise I would have it cut out immediately. A short time will prove if my notions of the nature of this hardness be correct or not. Whatever be the result, I cannot feel the less indebted to you for the relief from suffering for the last five months which I have enjoyed, and the additional time which it has afforded me for preparing myself for that eternal world to which we are all more or less rapidly hastening. I would very willingly undergo, any day, the operation you performed upon me, for a small part only of that relief from suffering which it has afforded me.

"Believe me your very sincere friend,

"JOHN REID."

On the 23rd of the following month Dr. Reid thus wrote to Dr. Cormack:—

"I regret that I cannot give you a more favourable account of my own health; that the disease is making considerable progress I entertain no doubt. The pain is not yet so severe as to oblige me to have recourse to opiates. I sleep and eat well; my general health is good, and I pass my time partly in carrying on some physiological pursuits, and partly in preparing myself for that eternal world to which I am rapidly hastening. I thank God that he has blessed me with a calm and contented spirit, that I can look to the rapidly-approaching period of my dissolution patiently, and without murmur. It is not on any supposed merits or good deeds of my own that I build my hope, for I know that these are but filthy rags in the sight of God; but my trust is placed on Him who offered himself up as an atoning sacrifice, that guilty men might, through him, come unto God and enjoy eternal life." Thus calmly and placidly did Dr. Reid prepare himself for another world. He did not repine at his own lot, but was most ready to sympathise in the afflictions of others, and to offer that consolation which he well knew would soon be needed by those most dear to himself.

The following beautiful letter illustrates this feature in his character. It was written on the occasion of the eldest of the merry group, to which allusion has been already made, falling a sudden victim to scarlatina:—

"St. Andrews, March 15, 1849.

"My dear Cormack,—It was with feelings of deep sorrow that Mrs. Reid and I received the news of the death of your sweet and interesting child, and I can assure you that we deeply sympathise with you and Mrs. Cormack on the melancholy event. We know, from experience, what it is to lose one of those innocent and sweet darlings who have entwined themselves so firmly around our hearts that the separation is agonising in the extreme. After time has somewhat blunted the agony, we are then able to derive sweet consolation from that source to which I know you and Mrs. Cormack have looked for aid, in this your day of visitation. Your poor girl has escaped from a sinful and troubled world to a region of perfect beatitude. And how willingly would I at this moment join her and my own two little innocents were it my Father's will that I should do so. It is a glorious privilege to hope that she may one day welcome, with joyous countenance, the arrival of her father and mother at the regions of bliss. 'No chastisement for the present seemeth to be joyous but grievous, nevertheless, afterwards it yieldeth the peaceable fruit of righteousness unto them which are exercised thereby." May it be your privilege, as it has been mine, to rejoice under the chastening hand of our Heavenly Father, and to feel that those whom he loveth he chasteneth. Our sinful nature will sometimes rebel and repine, as it is my experience sometimes to feel, under the trials and sorrows to which we are subjected; but a consideration of the amazing love of our Heavenly Father in sending his beloved Son into this world, to be offered up as an atoning sacrifice that we, through him, might enjoy eternal life, is more than sufficient to quiet these instigations of the Evil One, and to satisfy the mind that he afflicts not willingly, and for our eternal good. The Lord has dealt bountifully with you in raising up your beloved partner in life, as it were, from the dead;(a) and it is not for us to murmur when he takes away a small part only of what he has bestowed upon us, to return it on a future day more pure and happy than it could be on earth. That this severe affliction may promote your growth in grace, and direct your mind more strongly than ever to those things which are heavenly and eternal, is the sincere prayer of your affectionate friend,

"JOHN REID."

It has seldom been our lot to meet with so touching a tribute of friendship as the letter we are now about to transcribe; it is a tribute of which the friend to whom it is addressed may well feel proud, and displays, as in a mirror, the pure, the enviable feelings of the noble heart, so soon to be at rest, which prompted their utterance. We think no one can read the letter without emotion such as we ourselves have felt. It bears no date, but was written shortly before the death of Dr. Reid:—

"St. Andrews.

"My dear Lonsdale,—I could not trust myself at our parting on Thursday last, to tell you how grateful I felt for your kind visit made at such an expense of time and money, and to bid you farewell! Whenever I think of the many disinterested acts of friendship which my affliction has called forth, my eyes become filled with tears, and I become quite unmanned. As the whole of our interview was in the presence of others, I was afraid to venture upon the expression of what I felt and what I could have wished to convey to you. From our first acquaintance, our friendship, my dear Lonsdale, has been unbroken, sincere, and unalloyed by any selfish considerations. I felt that in you I had met an honest, honourable, and open heart, upon whom I could trust and rely, and in whose judgment I could place confidence. In leaving this world, I have many things upon which my affections were strongly placed to resign. My position in life was a very desirable one; I am blessed with an affectionate and kind wife and beloved children, and I have many valued friends; and I had a scheme of scientific investigation rising hopefully before me. This severe chastisement has, however, most vividly impressed upon me that my affections were too exclusively fixed upon the things of time, and that I was living on without endeavouring to obtain the advantage of those things which are eternal. By studying in a docile and teachable spirit, and with fervent prayer for Divine enlightenment and assistance, the Word of God, I feel a solace and comfort which cheer me up under my affliction, and prevent me from repining or murmuring. On the other hand, I often thank God that it has pleased him thus to afflict me, rather than to allow me to live on regardless of my eternal welfare, and then cut me off suddenly without time to reflect. I pray that all my friends may think of these things while it is yet in their power, for no one knows when his soul may be required of him. That the friendship *we* have begun on earth may be renewed in heaven, is the fervent wish and prayer of your affectionate friend, "JOHN REID."

Steadily, and with more rapid strides than heretofore, did the disease now progress; and on the 5th of April, a violent attack of inflammation of the throat supervened, which, besides causing great suffering, aggravated the local disease. On the 24th of May a second attack of the same kind almost produced suffocation, and from that time the sufferer was confined to his room. At this time he took morphia largely every night, but even with that did not sleep till morning. He then dosed till about three in the afternoon, when he rose, but was languid and miserable till towards ten at night, when he revived a good deal. The wounds in the neck from the operations had opened again, and discharged profusely. He was very pale and thin, and could only swallow liquids, or very soft food. At this time Mrs. Reid thus wrote to Dr. Cormack:—"I know what is the only result to be looked for, and sometimes could almost wish to see one so beloved removed from continued and increasing suffering; for oh! it is sad to witness what you cannot alleviate. I see my dear husband gradually sinking into an early grave, but fully prepared for the awful change. He never murmurs nor complains, but is always so patient and submissive, that it endears him more and more to me."

Day by day did his sufferings increase; and, as the work of decay progressed unremittingly, it was evident that the sad scene was drawing to a close. For many weeks he could only swallow liquids, and the half of that which entered the mouth escaped through two large holes, which had formed in the neck. There was also an ulcer far back in the throat, and the discharge from this, as well as from the neck, was frightful. He became unable to speak, and could only intimate his wants by signs. On the 16th July, a violent effusion of blood, which lasted three hours, took place from the mouth, and all, the sufferer included, thought his end was come. It ceased, however, and he rallied for a time, but on the 18th another effusion took place, which left him totally exhausted. His naturally robust constitution carried him on to the 30th, when he gently and peaceably breathed his last, in the presence of her whose unremitting attentions and devoted love had soothed the agonies of his sufferings, and whose words of comfort had afforded him support in his long and bitter journey through the Valley of the Shadow of Death.

Dr. Struthers, from Edinburgh, and Dr. Adamson, of St. Andrews, made an examination after death, and then the frightful extent of the disease became manifest. The inferior maxillary bone was reduced to half its thickness, and the whole mass of soft

(a) The reference is to an unexpected recovery from scarlatina; and is often alluded to in the correspondence between the two friends.

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parts under the chin and round one half of the neck was affected; whilst an ulcer had again formed at the spot whence the separation of the diseased growth had taken place, the first time an operation was performed.(a) Dr. Reid was interred within the precincts of the ancient cathedral, in a corner appropriated to the Professors of the University. He left a widow and two children, one being born after her father's decease.

Thus, at an age when his judgment and experience had attained ripe maturity, was the life of this most able physiologist brought to a termination. Great as was the loss to those who knew and appreciated his value, it was greater far in respect to science. The goodly volume of his collected papers is a contribution of sterling coin to the general fund of physiological knowledge, and no one can rise from its perusal without a feeling of profound regret that the author was not permitted to continue his labours to the limit of the three score and ten years which might have been anticipated from his hale and vigorous frame. We have in the progress of this sketch pointed out, and his letters have illustrated, the fine qualities of head and heart which formed so striking a characteristic of his nature. The eager interest shown during his protracted illness, and the regret expressed through public as well as private channels after his death, proved how much and how generally he was esteemed. His unswerving rectitude of principle, his thorough honesty, his manly independence, commanded admiration, whilst the amiability and goodness of his heart, his consideration for others, and his utter disregard of self, compelled love,—

> "His memory's light
> While it shines through our hearts will improve them,
> For worth will look fairer, and truth more bright,
> When we think how he lived but to love them."

Of him it might be said,

> "Nullum quod tetegit non ornavit;"

for, whilst he undertook nothing without consideration, he dismissed nothing from his hand imperfect or immature. By his labours he had woven a circlet of laurel, but, alas! it was doomed to be changed to a chaplet of cypress. But his name will descend among physiologists as one of the ablest, the most clear-sighted, and most trustworthy that Great Britain has produced.

Dr. Reid's thoughts appear to have been turned very earnestly to religious subjects in the early part of his illness. He was previously accustomed to observe with conscientiousness the duties of a Christian professor, was regular in his religious observances, and was well informed as to the great truths of our holy religion, of which he always spoke with due respect. He had, indeed, as he himself said, no leaning to infidelity; his mind was too powerful and clear not to perceive the inconsistencies of unbelief, but he afterwards acknowledged that he had not reflected on religious subjects with sufficient earnestness, and that, especially in the earlier period of his medical career, his time and thoughts had been so entirely occupied with his studies, that he had paid less attention to objects relating to his eternal interests than their importance deserved. It was a frequent remark made by him during his illness, that that affliction was a merciful dispensation of the Almighty, inasmuch as it had given him an opportunity of reflecting more deeply and more earnestly on that which he felt to be more precious than all the honours of this world. In letters addressed by him to various friends, in May and June, 1848, he expressed, in humble and simple terms, his religious convictions. With characteristic unwillingness to intrude on others, he seldom referred to such matters, except to his immediate friends, or those who could enter fully into his feelings; but his convictions were strong, and based on that foundation which can alone give support in the hour of trial. Many affecting proofs might be mentioned, showing that his calm spirit was neither ruffled nor agitated by the contemplation of eternity; and that he looked forward to his summons with the humility of a child but the firmness of a Christian. The Holy Scriptures formed his most frequent study, and next to them, his favourite books were such as served to strengthen and increase his faith. Locke on the Reasonableness of Christianity was a favourite work with him; and of "Butler's Analogy" he frequently spoke with peculiar admiration. His other favourite works were Baxter's writings, Wilberforce's "Practical Christianity," and Taylor's "Holy Dying."

The vicissitudes of health experienced by him made no change in the firmness with which he held to his religious contemplations. As time advanced, his views seemed to expand and his hopes to brighten under the influence of Christian faith. He had learnt to submit, without repining, to the interruption or abandonment of his most favourite scientific researches; and when returning strength of body, after the first operation in 1848, enabled him in some measure to resume these and other interesting pursuits, he continued as earnest as before in reading religious books and meditating on another world. The death of his only child, in October, deeply affected him, and perhaps hastened the return of his fatal malady; but not a murmur or an expression of complaint escaped him. He felt that the ways of Providence were inscrutable, and submitted without a complaint.

We must not think of John Reid as mouldering in the dust, and sharing the dishonour of the grave, but as one going down like the sun in his rich golden setting, when his departure is more glorious than his rising. As in the case of the lamented Dr. Hope, we see in Dr. Reid Christian religion affording support where human aid was of no avail. It was indeed a striking testimony to the power of that faith, when a man so eminently gifted with intellectual vigour —endowed with a mind alike so clear and deep, and reasoning powers not less practised than strong; when such a man acknowledged its truth, and was enabled by its support to resign all that was dear in life—all those avocations which might have led to wealth, to honour, and to fame; all those ties of friendship and affection which had twined like ivy around his manly heart;—to leave all these without repining, and to welcome with joyful eagerness that awful summons which would call him to account for his deeds in the flesh! Yet such he did, humbly hoping, as we hope, that the pang once over, he would be restored to those loved ones who had preceded him to that blessed land where sorrow and suffering are unknown, and where, in the glorious presence of the Most High, he would for ever reap the fruits of his reliance on that most consolatory of Divine promises, "Come unto me all ye that labour and are heavy laden, and I will give you rest."

(a) The full particulars of the dissection are reserved for Dr. Hughes Bennett's exclusive use; and we are thus precluded from giving the details.

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

Medicines; their Uses and Mode of Administration; including a Complete Conspectus of the three British Pharmacopœias; an Account of all the New Remedies, and an Appendix of Formulæ. By J. Moore Neligan, M.D., M.R.I.A., &c., &c. Third Edition. Dublin: Fannin and Co. 1851. 8vo. Pp. 555.

This work has attained a most honourable position in the medical literature of this country and of America, and most deservedly so. Avoiding theoretical and extrinsic details, but omitting no fact of practical value, the author presents the reader with a succinct and accurate history of the articles of the Materia Medica. He thoroughly understands his subject, has clear and defined views of the action and uses of medicines, founded for the most part on his own experience, and states them with vigorous conciseness. We find another element of the success of the work in the adoption of a therapeutic arrangement, which enhances in an eminent degree its practical utility.

The present edition has been carefully brought up to the existing level of therapeutic science, and has several advantageous characters to distinguish it from its predecessors. We have been especially pleased to detect greater independence in expression of original opinion—a rare feature in books on Materia Medica, but one of much value in a work destined to students who are apt to retain no idea whatever of the action of a drug, on perusing an author who confines himself to the detail of the various and often conflicting opinions of others. This edition is also considerably enlarged, embodies all the changes in the last edition of the Dublin Pharmacopœia, with numerous excellent comments on its new preparations and formulæ, and has appended to it a valuable table of British, Irish, and French weights and measures.

The following extracts will satisfy the reader that our good opinion of Dr. Neligan's treatise is well founded.

The first extract contains a favourable estimate of the therapeutic value of the valerianate of zinc. Dr. Neligan observes that this drug

"Is a tonic antispasmodic of much power, and, as such, is peculiarly adapted for the treatment of neuralgic affections, which are so generally dependent on loss of tone in the system. It has been found especially useful in the treatment of facial neuralgia and of vertigo; but I have seen it prove equally beneficial in most of the protean forms of hysterical neuralgia. In short, I look on it as a most valuable addition to the Materia Medica, and I fully agree with the observations of Devay, that the chemical combination proves much more beneficial than the oil of valerian and oxide of zinc prescribed together. Latterly, however, the remedy has fallen into some disrepute, owing to the difficulty of obtaining it

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pure; but this will be remedied by the new and cheap process of the Dublin College."

Our author reports favourably of the new anthelmintic—kousso:—

"This substance," he remarks, "has, for at least two centuries, borne the highest repute amongst the Abyssinians, who are much afflicted with tape-worm, for its expulsion from the human intestines; and the experience of all who have tried it, both on the Continent for years back, and in England since its introduction, is confirmatory of this. It does not seem to produce any very manifest physiological effects, causing usually but slight nausea and a sensation of thirst; in some cases, however, it excites vomiting. Its action on the bowels is but slight, and the worms are often expelled alone, but it is more advisable to give a mild purgative a short time before it has been taken. It manifestly acts as a poison to the parasites, for in one of the reported cases it brought away ten worms, of which one only exhibited signs of life, and that but for a few minutes. Its operation is admitted by all to be not only effectual but safe, producing less disturbance of the system than most other remedies of this class; it is also equally effective, whether it be the *tænia solium* or *Bothrio-cephalus latus* which is present in the intestines. But it must be remarked, that although kousso expels the tape-worm, it is not a radical cure for the diseased condition of the system on which the production of the parasite depends."

We have complete confidence in recommending Dr. Neligan's work as an excellent and trustworthy guide to the remedial application of medicines.

Introductory Address on Medical Education, delivered at Queen's College, Cork. By ALEXANDER FLEMING, M.D., Professor of Materia Medica.

This is an excellent address, and, both in its matter and manner, worthy of Dr. Fleming's high reputation. There can be no doubt of the ultimate success of the Queen's Colleges in Ireland, if every department is administered with as much vigour and skill as that to which Dr. Fleming belongs. We are rejoiced, indeed, to hear that already the number of medical students is beginning to increase, in spite of a rather severe entrance examination. Dr. Fleming has annexed to his address the curriculum for the Degree of M.D. in the Queen's University, which appears to us one of the best we have ever seen. It is as follows:—

"*First Year.*—Anatomy and Physiology, Chemistry, French or German, six months. Natural Philosophy, Botany, three months.

"*Second Year.*—Anatomy and Physiology, Materia Medica, Practical Anatomy, six months. Practical Chemistry, three months.

"*Third Year.*—Surgery, Midwifery, Clinical Surgery, six months. Comparative Anatomy, three months.

"*Fourth Year.*—Practice of Medicine, Medical Jurisprudence, Clinical Medicine, six months."

The introduction of French is, Dr. Fleming observes, "a violation of the principle which separates preliminary and professional study," but which has been rendered necessary by the imperfect condition of many of the preparatory schools in Ireland. In order, however, still to continue professional instruction, French medical authors are chosen, such as Bichat, Pariset, Lallemand, Dumas, &c.

The course of Natural Philosophy also appears highly useful, adapted as it is especially to medical students. Dr. Fleming gives a synopsis of this course, which is too long for us to insert; but, as a specimen of it, and as an illustration of its evident usefulness to medical students, we will extract the paragraph referring to

"*Sound.*—Mechanism of the voice; its *timbre;* the voice as heard in the chest, and its modifications; consonance of the voice; hearing and its mechanism; auscultation and stethoscope; laws of the production of sound by percussion, and their applications to diagnosis."

There are many points in the above curriculum which it would be well for the English colleges to imitate; especially the making clinical surgery and clinical medicine compulsory in distinct years, the enforcement of comparative anatomy, and the study of modern languages. By spreading the curriculum over four years, all overwork and crowding of subjects is avoided, and no more is assigned for each winter and summer session than can be accomplished with ease by any industrious student.

We have said so much on the curriculum, that we have left ourselves no room for a consideration of the subject-matter of Dr. Fleming's address. We will, therefore, only say, that it is evidently the production of one who not only feels the importance of his science and calling, but who takes a profound interest in the Institution to which he has become attached.

Pharmacopœia Nosocomii in Curam Morborum Cutaneorum. 1850.

This little book is the Pharmacopœia of the Institution for the Cure of Skin Diseases in the Blackfriars-road. It contains some very useful prescriptions, from which we extract the following:—

Balneum Creosoti.—℞ Creosoti ʒii., glycerinii ʒii., aquæ ferventis c. i. Ut solvetur. *Modus.*—Ad aquæ c. xxix.

Linimentum Hydrargyri cum Iodinio.—℞ Iodini ʒss., glycerinii ʒii., olei olivæ ʒiiiss., ung. hydr. fort ʒii. Solve et misce.

Unguentum Hydrargyri cum Plumbo.—℞ Plumbi acetatis pulveris ʒii., hydrargyri chloridi ʒi., ung. hydrar. nitratis, ʒvi. Adipis recentis olei palmæ aa ʒx. M.

These may serve as examples of the rest. Many of the prescriptions are very good; a few too complex.

Religion and Science; their Independence of each other, and their Mutual Relations. By a PHYSICIAN. Pamphlet. Pp. 23.

We do not know who the "Physician" may be, but he is evidently a sensible man, who has thought much and well on the subject. He has written a pamphlet which, if it contains nothing very novel, contains much that is good, well-considered, and well presented to the reader.

A Letter to Sir George Grey on some of the Social Relations of the Medical Profession. By GEORGE ROBINSON, M.D., Newcastle-on-Tyne. Pamphlet. Pp. 28.

A well-written and sensible Letter, with many very good suggestions. We shall return to it hereafter in our articles on Medical Reform.

GENERAL CORRESPONDENCE.

SELF-SUPPORTING DISPENSARIES.

[To the Editor of the Medical Times.]

SIR,—As I have received one application for information regarding the Provident Dispensary movement, and may receive more, in consequence of your reference to me, I have to request a place in your columns for the following reply to Mr. Michael, of Swansea, and, by anticipation, to all other applicants.

Yours, &c., A. P. STEWART.

74, Grosvenor-street.

I have no doubt whatever of the soundness of the principles advocated by my excellent friend, Mr. Smith, of Southam, though I very much regret that circumstances, which I need not here explain, prevent my joining his and Mr. Hawker's Society. In a pamphlet on "Sanitary Economics," published in December, 1849, I strongly recommended the formation of a *tertium quid*, which might afford to those who had too much self-respect to repair either to the parish or to the Free Dispensary, but too small an income to pay their own medical attendant, the prompt relief which is so invaluable both to themselves and to the community; and Mr. Smith has repeatedly informed me, that he ascribes the present movement to the publication of this pamphlet, which stirred up anew the interest formerly felt in his proposals.

The term "provident" is very much better than "self-supporting," for it takes away all handle from hypercritical opponents, by correctly describing the peculiar feature of the institutions formed on Mr. Smith's plan. The beauty of them is, not that the working classes in receipt of any amount of income support them entirely themselves, but that those of the working classes who are in receipt of too small an income to do all they could wish, are encouraged, by the help of the rich, to do what they can, and to strive after doing more when they can, for themselves and their families. It is an essential feature in the system, that workmen receiving above a certain amount (to be fixed according to the varying circumstances of each locality,) shall be refused the benefits of the Institution, or struck off the roll of subscribers whenever they shall, by their own industry, or from

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any other cause, have risen above that level. On the strict observance of this rule doubtless hinges the character of the Provident Dispensary,—whether it shall be a great good or a great evil. But the difficulties in the way of enforcing this strict observance are much more imaginary than real; and those who make the most of them heedlessly or willingly forget the influence which a principle exercises in imparting a right or a wrong, a wholesome or a hurtful direction to the habits, the views, and the feelings of those on whom it lays hold. In the former case, in proportion as the right principle takes possession of the popular mind, you have the people themselves becoming every day more and more fellow-workers with you, because their habits and feelings are becoming identified with yours. In the other case, in proportion as the wrong principle becomes fully developed in practice, the people are learning every day to counter-work you more and more effectually, because, though you may have a single eye to their interests, they have a single eye to their own. It is to the direction which the principle gives to the active powers of those whose good we seek, that we must look in estimating the probable consequences of our benevolent efforts. It is for the results to which it leads that the provident principle is to be encouraged to the utmost; and for the same reason that the alms giving and taking principle is to be viewed with jealousy and dread. The former leads the working-classes to co-operation with you, first, in promoting the health of themselves and their families, and next, in laying by some portion of their earnings in the savings'-bank against a future time of trouble. The latter makes them every day more and more your antagonists, by bringing out into higher relief and more disastrous activity all their most selfish and sordid passions; so that your suspicions are quickly aroused, and your ingenuity constantly taxed to devise new methods of discovering and checking the mean and dishonest tricks to which they have recourse in order to get as much as possible of your eleemosynary aid. The one principle begets mutual confidence and manly independence; the other, mutual distrust, meanness, and dishonesty.

Such being the view I have for a number of years taken of this subject, you will not be surprised to learn that I regret exceedingly the turn the discussions on it have taken. Not that I consider provident dispensaries as in the least degree likely to hurt the interests of the medical profession, for I am as firmly convinced of the contrary as any man can be; but I grieve to see the followers of so noble a calling as ours meeting a proposal, which has for its end the elevation of the working-classes from the wretched state of dependence into which the pestilent Poor-law system has brought them with the inquiry, How will this affect our pockets? The first question ought to be, Is this a plan which is likely to promote the economic well-being of the working classes? If so, then it cannot be to our disadvantage. If not, then let it be put down summarily as a public nuisance. That institutions founded on excellent principles may become hurtful, from carelessness in arranging and working out the details, I readily allow; but this is an argument for the exercise of much care and a sound judgment in guarding against, and checking with a firm and resolute hand, everything that may tend to introduce disturbing elements into the working of the Institution. It is no argument against the principle on which they are founded.

I do not pretend to be able to give you such detailed information as the secretary of a society established for the express purpose of promoting the establishment of dispensaries on Mr. Smith's plan should be able to furnish; but sure I am, that an application for such information, addressed direct to Mr. Smith himself, at Southam, Warwickshire, will not be treated with neglect. I send you a copy of the constitution and rules of the North Pancras Provident Dispensary, which has been now nearly a year in full operation, and has, I believe, about 1600 subscribers from among the working classes. I am not aware that any of the medical men in its neighbourhood complain of being injured by it. Indeed, it is difficult to conceive how it should be so, except on the supposition of the most blameworthy carelessness in admitting persons in easy circumstances, when we consider the very large amount of counter-practice now done by druggists. This practice, which even those who engage in and profit by it cannot plausibly defend, would receive its death-blow from the establishment, on the large scale, of provident dispensaries. A meeting, I believe, will be held in the course of next month, where the results of this important experiment will be detailed, and the general subject handled by those who are familiar with its bearings. The *Medical Times* will, I doubt not, furnish its readers with a report of what is said on that occasion.

I do not, of course, pledge myself to every provision contained in the rules and regulations I now transmit to you, though I consider them, on the whole, very judicious. We cannot too steadily bear in mind that, as regards *details*, we are engaged in a tentative process, which may, for aught we know, result in great and wholesome changes; while the *principle* we are seeking to work out is absolutely unassailable. It rests on a basis of fact and experience far too broad to be shaken by any amount of objection or cavil that may be levelled against it. Here is the *fact*. Multitudes of our industrial population, whose better feelings and nobler instincts revolt against an application to the parish or the free dispensary, are willing and anxious to contribute something towards the medical relief of themselves and families, but quite unable to pay even the lowest scale of fees for private attendance. Such being the case, must we drive them, against their will, to the free dispensary, or fence them round as the lawful preserve of the union surgeon? I hold the inference to be irresistible. There *must* be some way of reconciling this feeling of self-dependence, so noble and Christian in itself, and so full of hope and blessing to the Commonwealth, with the rights of the medical Profession. More than that, *whatever tends to foster the one, will infallibly secure the other*. It is worse than folly to represent them as antagonistic. I believe them to be harmonized in the provident dispensary system. If those who oppose it will "show us a more excellent way," I for one shall acknowledge myself their debtor, and give them their full meed of praise. But to leave things as they are—to uphold and perpetuate gigantic abuses which no one ventures to deny—merely because the remedy devised for the growing evil is open to some minor objections, is, in my humble judgment, neither praiseworthy, wise, nor patriotic.

I am, &c.,

A. P. STEWART.

THE CHOLERA AT NOSS.—DR. ROE IN REPLY TO MR. MACLAREN.

[To the Editor of the Medical Times.]

SIR,—Your choleric correspondent Mr. MacLaren may well apologise to your readers for indulging in "unseemly altercation," for a letter so replete with "unseemly" and coarse expressions as his of Feb. 8th, has, I rejoice to say, rarely appeared in the columns of a periodical so valuable as the *Medical Times*.

It is to be deplored, Sir, that some men have such pugnacious spirits, that others cannot differ in opinion with them, but that immediately scurrility and invective must be called in to aid in fighting the cause that scientific argumentation and conclusive evidence should alone decide upon. The reason of this must be looked for deeper than the surface, and will be found dependent upon the defective cultivation of those moral qualities which make the man the gentleman.

But, while we may readily trace the origin of the untempered lucubrations which occasionally blemish the otherwise fair page of medical periodical literature, we cannot so clearly see the limits of the damage these "sour eructations" produce to the cause of medicine generally, by allowing the public to see our weakness, our disunion, envy, malice, and uncharitableness; and I can safely avow, that my regard for the best interests of the Profession I have the honour to belong to, would have effectually prevented my drawing your correspondent's tables from their obscurity, had I supposed that my setting a due and proper value upon them would have caused their author so sadly to expose himself.

That he has formed a high opinion of his labours, and that he is alone in his glory, appears from the following passage in his last letter:—"In vindication of these aspersed tables, I beg to say that the table of the state of sickness precedent concurrent to the epidemic period of the district, is, I believe, *valuable though unappreciated*."

Modesty, at all events, does not appear to be Mr. MacLaren's peculiar vanity; and it is to be hoped, for his own happiness and respectability, he may hereafter get less thin-skinned and more civil.

The "proper matter at issue" between Mr. MacLaren and myself, is not only the number of the inhabitants of Noss, but the amount of mortality there, and the history of the epidemic as it occurred at Bridge End and Newton, on all which points I unhesitatingly assert that he is in error; but, previously to entering into the consideration of these subjects, I may be allowed to glance at one or two others bearing on his last letter.

In Mr. MacLaren's "unappreciated" essay, he states, as I have elsewhere shown, that he went to the district to have "the opportunity to observe the *progress* of cholera," . . . "an opportunity presenting a most exquisite instance of epidemic severity." In his last letter it leaks out most reluctantly, that he did not get there before the 29th June, at a time when the disease had nearly ceased at Noss, where alone it was *intensely severe*, and he now acknowledges that "his sphere was not at Noss, for the violence of the

pestilence was there declining;" but, "not as a parade of labours," he gently allows himself to boast that "some days" by himself alone "seventy were visited, all of which were suffering from *one grade or other of choleraic distemper!*". Let us then see what this learned and indefatigable examiner and labourer calls *choleraic distemper*, and we shall soon find the value of this statement, and by it estimate the worth of his paper and of his services.

"At various times," he says in his essay, "during the *progress* of the epidemic, but especially notable at its decline, was an affection widely prevalent among infants, which received the appellation of *influenza*. This affection, in relation to infants, we believe to stand much in the place of what has been denominated gastro-choleric irritation among the elder and adult population. It closely resembles influenza, with which no doubt it has an affinity; but it appears to mark a mediate state, or one of transition between the two. These distinctions obtain in nature, and are well marked; and much of what has been called influenza might, we believe, be more correctly otherwise distinguished, if not as gastro-choleric irritation. This state, the gastro-choleric, is considered to have been more prevalent than *any other grade of cholera*. We believe it to be a *grade* of cholera, interchangeable or convertible by development into diarrhœa, or *per saltem* into malignant or algide cholera. In a greater or less degree it affects *the general population* of infected districts."

This may be taken as one sample of the style of Mr. MacLaren; his letter in the *Medical Times* of Feb. 8th as another; and neither will, I apprehend, be regarded as free from faults of the gravest nature. But, if his style of composition is objectionable, his "exposition of facts," as he is pleased facetiously to term it, is still more so; and it will easily be seen, that a man who deliberately sits down and writes that *he* attended daily seventy cases of choleraic distemper, and does not at the same time inform his readers—who cannot be supposed to know—that he calls, or, as it is pompously phrased, *we* call, every case of influenza, however trivial, *one grade of cholera*, is not acting with honesty and good faith to those whose favourable opinion he desires to obtain. He is deceiving his readers into a belief that he worked and toiled as never man worked before, as he must have done, to have seen daily seventy cases of cholera scattered over a thinly-populated agricultural district; when, in fact, one small hamlet of a dozen houses would yield him that number of cases of fright and influenza, *alias* "the MacLaren choleric distemper."

Had Mr. MacLaren's statements on all other points than the number of inhabitants at Noss been marked by rigid accuracy, that one might have passed without much comment, but such is not the case; his account of the outbreak at Bridge End is lamentably incorrect; and, when it is considered that the phenomena exhibited there have very important epidemiological bearings, such want of due and proper care in the elaboration of his paper, when there was so much pretension, must excite surprise and regret.

His account of the mortality is also incorrect, as can easily be ascertained by reference to the registration books; or I will send him the names of the fifty-one who died, if he wishes.

As respects Mr. MacLaren's opinion of Noss, it is valueless; for, when he arrived there, the whole aspect of the place was changed from that it usually wore. There, where a few weeks before pigs were almost as numerous as people, not one was then in the village; every place was clean and white-washed, *even the very floors of the piggeries*. The masses of bait, which were generally most offensive, and kept close under the noses of the inhabitants, had also vanished, and Noss in May could scarcely have been known, but for its surrounding landmarks, as the same village in July.

As regards the inhabitants, the vast majority are engaged fishing or selling their fish; therefore, generally absent from their homes. In a census of the population, these must be accounted for, and as in rural districts the same person is often known by different names, it follows, I submit, that a stranger who begins his investigations a month after the cessation of the pestilence, and two months after its outbreak, will scarcely stand a chance of being so accurate as the man who, living with the people and acquainted with their persons and habits, institutes his inquiries when the disease first appears.

The truth of my remarks, as to the baseless foundation of Mr. MacLaren's gastro-choleric, &c., tables, will, I feel assured, be considered as fully proved by the extracts I have given here from his paper; but if any one can convince me that I am wrong in any point of sentiment or practice, I will alter it with all my heart, for it is truth I seek, and that will hurt nobody. It is only persisting in error or ignorance that can injure us. I am, &c,

Princess-square, Plymouth. EDWARD T. ROE, M.D.

DIARRHŒA AS A SYMPTOM OF MENSTRUATION.

[To the Editor of the Medical Times.]

SIR,—The last number of your Journal contains a report of the proceedings of the Medical Society of London at their last meeting. Therein is the notice of a paper by Dr. Tilt, "On Diarrhœa as a hitherto unnoticed Symptom of Menstruation." I beg to avail myself of your columns to claim precedence of Dr. Tilt, in drawing attention to this subject in a pamphlet, "On Functional Diseases of the Liver, associated with Uterine Derangement," which was published by me more than a year ago. I there pointed out the occasional coincidence of diarrhœa with menstruation, especially when a dysmenorrhœal state exists. My conclusions differ from those of Dr. Tilt, inasmuch as, in 100 cases where the general health was good, I found that in twenty-two no change of alvine state was acknowledged. In forty-five instances comparative constipation was declared to exist; and, in thirty-three cases, the bowels were relaxed in comparison with the usual wont; but, in about half these latter cases, there was more or less dysmenorrhœa, whereas, in the females otherwise categorised, that morbid state rarely existed. Thus, it seems that any undue state of uterine excitement or irritation tends to cause relaxation of the bowels during menstruation, and this was countenanced by reference to some cases of special female diseases—uterine tumours, &c., and which Dr. Frederic Bird kindly suffered me to make note of; for, out of twenty consecutive cases, I found the bowels were unaffected at menstruation in four instances, constipated in two, and relaxed in no less than fourteen.

In the pamphlet to which I have alluded, I have endeavoured to prove a special relation to exist between uterine and hepatic action, to which relation and mutual influence I believe the normal alvine disturbance to be mainly attributable. It is my opinion, that constipation to a greater or less extent most commonly coincides with menstruation when the uterus is in a healthy condition, its function exerting a derivative influence in relation to that of the liver. I refer to the condition actually simultaneous with menstruation, and not to that which is antecedent thereto, when, from the general abdominal excitement preceding menstruation, a special irritation may be exerted tending to relaxation of the bowels.

In the publication which I have mentioned, I have set forth various anatomical, physiological, and pathological facts in support of my theory, which I shall not now refer to; but, as a matter of practical importance, I may allude to the extraordinary influence which mercury sometimes exerts in cases of disordered menstruation, and where that influence assumes a close connexion with the promotion of biliary action. I am fully assured that mercury will often check menorrhagia when hepatic inertia is simultaneous therewith; and this I believe by setting up an antagonistic and derivative influence. So, on the other hand, when menstruation is delayed, and mucous diarrhœa exists, with various symptoms of a congested state of the hepatic system, a smart mercurial dose seems to stimulate the liver to healthy action, allaying the diarrhœa and all the unpleasant bilious symptoms, while, apparently by sympathetic consent, the uterus at once assumes its normal function.

Whether the views which I have advanced are correct or not, I am fully convinced that the subject in question has an important practical bearing, and is well worthy inquiry in the extended field of hospital practice. I am, &c.,

Ewell, Surrey. BUTLER LANE, M.D.

A NEW EPOCH IN LIFE ASSURANCE.

[To the Editor of the Medical Times.]

SIR,—My attention having been drawn to an article in the *Lancet* of the 22nd inst., lauding the intended practice of the "New Equitable Life Assurance Company" to pay the members of the Medical Profession for their reports on cases of assurance, and stating that "an unequivocally good example on the part of assurance offices was wanted," as also that such practice forms a "new epoch in the history of life assurance;" I now state, that so far from its being the first "unequivocally good example," or a "new epoch" in life assurance, an office in 1846 addressed the whole of the Profession by circular, stating that its practice was to pay medical fees, and offering to place the Medical Profession generally on the same footing as that of the legal, which from time immemorial had had the full advantage of agency.

Verily and of a truth it may be said, that your contemporary is no Argus, or he would not have heralded in a dish of some years standing as "Soyer's last and best."

As a friend to the "Society for the Diffusion of Useful Know-

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ledge," I beg to inform the public, that the practice of paying medical gentlemen for their professional reports was adopted years ago by many very respectable and responsible offices.

The only novelty the "New Equitable" can claim as introducing, is the payment of a fee of two guineas for each report, which in my opinion is so excessive, that I cannot help thinking no respectable practitioner will accept of it, as he must know that, in a small-assurance, such a fee is monstrously exorbitant.

Looking at the family compact that figures in the Executive, there is little doubt that the "New Equitable will have much to say on future occasions," characterised in all probability with as little of justice and truth towards the practice of other offices, as it displays in its first attempt to puff itself into popular notoriety at the expense of many respectable institutions.

What renders the article above allnded to the more gross is, that the same journal, if I mistake not, acknowledged and complimented the practice of several offices some few years since for paying medical reports.

I enclose my card, and am, Sir, yours &c., FAIR PLAY.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Dr. ADDISON, President, in the Chair.

CASE OF SMALL-POX RECURRING A THIRD TIME AFTER VACCINATION, WHEN IT PROVED FATAL.

By JOHN WEBSTER, M.D., F.R.S., &c.

After alluding to the fact, that hooping-cough, measles, and scarlatina generally occur only once during the lifetime of an individual, exceptions, nevertheless, to the above rule, as well in these complaints as in small-pox, have been recorded by authors. Three well-marked examples of the recurrence of small-pox, met with in the same family, are related, one of which terminated fatally. The case especially referred to by Dr. Webster, that of H. N. N., who had been vaccinated satisfactorily in 1827, when three months old. Notwithstanding this circumstance, he was attacked by small-pox in 1833, along with an elder brother, who had been likewise vaccinated. Both patients recovered, and nothing more was thought of the matter till 1838, when the two lads were again attacked by variola, along with another—that is, a third—brother, likewise regularly vaccinated. However, all three got quite well in due time. Subsequently, Mr. H. N. N., whose case is now just mentioned, went to India in the Company's service, where he was seized, in April last, with the usual and well-marked symptoms of small-pox, which soon became confluent, and proved fatal at Dharwarinth, on the 13th of that month; this making the third time this gentleman had been attacked by variola, although previously vaccinated

CASE OF CONFLUENT SMALL-POX AFTER A THIRD VACCINATION.

By DR. A. P. STEWART.

A gentleman, 25 years of age, who had been five years apprenticed to a gentleman in extensive general practice in Devonshire, had been most successfully vaccinated when six months' old. Requiring to attend variolous cases, he had the operation repeated in July, 1849, without effect, and again in May, 1850, with much irritation, inflammation, and swelling of the arm, the lymph from the vesicle not communicating the disease. He came to London to begin his medical studies on the 13th of October last, having been exposed to infection the same morning. The train of premonitory symptoms set in on the 15th, and was followed (on the 17th) by the appearance of a closely-packed eruption of papulæ all over the body. For four successive nights, mild delirium was present; but the sore throat and conjunctivitis occasioned by the presence of vesicles, were quickly relieved by the application of a solution of nitrate of silver; and the pulse, previously as high as 120, never rose above 100 after the seventh day. The vesicles, though very numerous on the hands and feet, caused little or no pain; on the eleventh day of disease, and seventh of eruption, they were at their height, and, in the course of the next two days, had nearly all dried up and scaled off, with very trifling discharge. Thereafter convalescence went on rapidly. In the district where the subject of this attack resided, the popular prejudice against vaccination has always been so strong, that for a number of years it has been much neglected; and the parents are still in the habit of inoculating their children. During the last nine months, it has been practised to a very large extent, with so much secrecy as to defy the utmost efforts of the authorities to obtain legal proof, and with the effect of keeping up the disease during many months, and spreading it abroad over the whole district. It was introduced in April by a sweep boy, who took it in a town not far off, and, returning to his family, communicated it to his unvaccinated brothers and sisters. The latter, again, going to a lace school, infected several of the other children, after which it spread rapidly in all directions. Several instances were adduced, as examples of a large number in which inoculation had entirely failed to protect those who had been subjected to it from secondary attacks; besides the case of a lady of title, whose mansion was in the infected district, and who had lately had a second attack of natural small-pox. The author then stated, as the result of his and Dr. A. Anderson's experience in the Glasgow Fever Hospital, from November, 1836, to November, 1838, that, of the 126 cases admitted, 31 were vaccinated, 52 doubtful, (consisting of unvaccinated, with a sprinkling of imperfectly vaccinated patients,) and 43 unvaccinated. The mortality among the "doubtful" was 1 in 3·06, or 32·7 per cent.; among the unvaccinated, 1 in 2·86, or 34·8 per cent.; while among the vaccinated it was only 1 in 31, or 3·2 per cent. The author concluded his remarks by adducing his experience in the north-west district of St. Pancras parish, during the epidemic of 1845. Those who had been successfully vaccinated, both children and parents, though exposed night and day, in their unventilated dwellings, to the concentrated infection of the disease in its worst forms, were proof against it; while those in whom the evidence of success was doubtful were not proof against the milder forms, and very often took the disease from convalescents whom they met in the open air. The author concluded, with Chomel, that "we cannot fairly expect more from vaccination than from small-pox itself."

Dr. Mayo, after commenting on the importance of Chomel's remark, quoted by Dr. Stewart, spoke of an epidemic small-pox at Edinburgh some years since, when the disease was confluent and more fatal among the inoculated than among the vaccinated, the difference in favour of the latter being remarkable. Cases of small-pox after vaccination did not lessen the value of that operation. When revaccination was successful, was it a proof that the protection existed for a certain time only, or that the person revaccinated was one of those whom its protective influence cannot reach? This, he thought, was a point worth considering. In three cases of supposed measles, at the Middlesex Hospital, the exanthem ultimately proved to be secondary small-pox; and he believed that a rigid investigation would show that many cases, reported to be second attacks of measles, were really not such.

Dr. Gregory observed, that, in the first case, the fatal attack of small-pox after vaccination occurred in India, where the intense heat rendered that disease especially dangerous. The attack of small-pox, spoken of as having occurred in the third year after vaccination, was remarkable. He had never met with such an instance; and he would ask Dr. Webster if a medical man had attended on that occasion, and had pronounced it to be variola? In Dr. Stewart's case, all that required notice was, that revaccination had been tried, and had caused great inflammation; nevertheless, the patient was again attacked with small-pox, showing the little use there is in revaccination. He himself had long been of that opinion. He considered Chomel's remark important, but untenable. Inoculation gives the disease, small-pox; and, although some may be attacked again, as there are exceptions to every law, it is generally protective for life. Those who have been inoculated have no fear of small-pox; but not so the vaccinated, and facts are not in their favour. Up to puberty vaccination protects them, but after that a change takes place, and they become liable to small-pox once and again. It is not fair to say that vaccination does no more than inoculation. The latter imparts the exanthem, and that with full protection; vaccination does not protect after puberty. In 1815, when those first vaccinated in infancy attained the period of puberty, modified small-pox was first heard of, and it has since continued to occur. Such cases are continually admitted into the Small-pox Hospital, and their mortality has been found to be five per cent.

Dr. Mayo repeated the remark already made by him, that small-pox had been at a certain date very prevalent and

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fatal among the inoculated,—much more so than among those who had been vaccinated; and he added, that this occurred among those possessed of that protection which Dr. Gregory thought was so much to be relied on.

Dr. Webster had not been the medical attendant in childhood of the person whose case he had narrated, but he knew the gentleman who had vaccinated him, and had attended him subsequently, and he (Dr. Webster) entertained no doubts respecting the case. In India he had been attended by the surgeon of the regiment. He then confirmed Dr. Gregory's statement respecting the fatality of the disease in India, and said that that formed an additional reason for obtaining full protection before going there. He did not seek to lower the value of vaccination by the case brought before the Society, but was of opinion, that in many cases where small-pox occurred after vaccination, that operation had been imperfectly practised. Small-pox was still fatal here because of the prejudices entertained, even in London, against vaccination. Dr. Webster then mentioned, that at Bilston, during the last quarter, 69 persons died of small-pox, 19 only having been vaccinated; in the eastern district of Wolverhampton, of 71 deaths, 15 only were vaccinated; at Coventry, of 65 deaths, 8 only were vaccinated; and of 60 at Dudley, 10 only were protected. While vaccination then was so little employed, the mortality of small-pox could not excite surprise. In his own case, it was remarkable, that the second attack of the disease involved several members of the same family, but the sons only; the daughter escaped. It would seem as if certain families could not be protected, and a case mentioned by Dr. Macintyre would appear to confirm this opinion. Two young men, both vaccinated, went abroad. The one in India caught the disease and died. The other, in South America, although he had been vaccinated and inoculated, hearing of his brother's death, was revaccinated; still he got small-pox, and nearly died. His doctor thought the revaccination had saved his life. He would ask Dr. Gregory, why the protecting power of vaccination failed after puberty, and if he would recommend revaccination then?

Dr. Gregory would say, that after the fifteenth year the protective power of vaccination, which previously was equal to that of inoculation, underwent some change, and the constitution became liable to small-pox. How to increase its power of protection he knew not, and the law forbade him experimenting with inoculation after puberty. In France, however, MM. Cazenave and Schedel had ascertained, that by inoculating after vaccination, a papular, incommunicable eruption, without constitutional disturbance, was produced. These results he had himself been able to confirm by a set of experiments instituted privately.

Dr. Copland said, that the vaccinated who escaped in the epidemic small-pox spoken of by Dr. Mayo, were all under puberty, and, therefore, still protected. A family at Hackney, nine in number, under his care many years ago, who had all been vaccinated, were attacked by the exanthem. The two adults had unmodified small-pox; in those who had attained puberty, the disease was less violent; and in the youngest, who was about eleven or twelve years old, the eruption was merely papular. He had also seen a lady, vaccinated twenty years ago, suffering from confluent small-pox. All these facts had led him, years ago, to the opinion that vaccination was only a temporary protection, and that, as the person became older, its influence wore away.

Dr. Basham referred the occurrence of secondary small-pox, or rather the want of protection from the disease, to imperfect vaccination. Out of a certain number of poor patients, casually examined, only four could show a perfect cicatrix.

Dr. Snow had met with modified small-pox in vaccinated children under fifteen years of age, and once even in a child three years old. He could not agree with Dr. Gregory in his opinion that the protection of vaccination terminated at puberty, nor could he tell on what grounds he defended it. If on hospital statistics, they were uncertain, because children with modified small-pox were treated at home. Medical men generally were vaccinated, he thought, and not inoculated; they were much in contact with the disease, and yet they generally escaped.

Dr. Webster mentioned some statements of Dr. Thomson, to show that the mortality of small-pox was very high until recourse was had to inoculation, by which it was much reduced, and that vaccination brought it lower still. Death from small-pox now occurred chiefly among the unvaccinated.

Dr. Gregory did not consider the cicatrices a good test of perfect vaccination. When they were complete, they were satisfactory; but their imperfect condition would not imply equal imperfection in the operation, as that might be the result of subsequent local inflammation, the constitution being still protected. He had drawn his deductions relative to the change in protection from vaccination at puberty, not from hospital statistics, but from an extensive correspondence. Not one of his medical friends had seen modified small-pox under puberty, nor could he find any reports of such cases; that form occurred in grown-up persons only. Vaccination, however, should not be discouraged, because it served to protect one-half the population, statistics showing that one-half of those born die before puberty.

Mr. Arnott inquired of Dr. Gregory the number of cases of small-pox admitted into hospital in the seven years, and their mortality, vaccination not having been previously practised. He had already stated, that the number of cases of the disease after vaccination was 1500, and the rate of mortality 5 per cent.

Dr. Gregory's reply is embodied in the following Table:—

* *Return of Cases admitted into the Small-pox Hospital for Seven Years* (1844 *to* 1850 *instant*) *with the Character of the Cases and the Mortality in each Class of Cases.*

Years.	Total admissions.	Total deaths.	Not small-pox.	Death.	Unprotected Cases.		After Vaccination.	
					Admitted.	Died.	Admitted.	Died.
1844	647	151	4	..	331	127	312	24
1845	384	79	17	..	150	66	217	13
1846	152	29	5	..	67	24	80	5
1847	461	81	11	..	170	64	280	17
1848	696	168	10	..	317	129	366	39
1849	200	33	10	..	91	27	95	6
1850	314	58	7	..	151	50	155	8
Total	2854	599	64	..	1277	487	1505	112
Rate per cent. of mortality	21	..	..	..	..	38	..	6·7

* To the Editor of the Medical Times.—Sir,—I beg leave to enclose, for the assistance and guidance of your reporter, an exact return of the cases for which the President of the College of Surgeons inquired during the discussion at the last ordinary meeting of the Medical and Chirurgical Society, and a copy of which I have this day placed in his hands.—I am, &c.,

GEORGE GREGORY, M.D.

6, Camden-square, Camden New Town, March 1, 1851.

Dr. Addison inquired respecting the identity of chicken-pock and small-pox.

Dr. Marshall Hall was about to put the same question, and also to ask Dr. Gregory whether, when vaccination fails to take, and that repeatedly, the child is still liable to variola? A son of his, who had been frequently vaccinated without success, soon after returning from Eton for the holidays, while at Brighton, was observed to be covered with an eruption, some of the spots resembling chicken-pock, others horn-pock; with one or two pittings like small-pox. The occurrence of chicken-pock and small-pox together, he thought, confirmed Dr. Thomson's opinion as to their identity. His son afterwards, at Eton, had the sore throat and the tongue of scarlatina, without any eruption on the skin.

Dr. Gregory, after having complimented the President for his services to the Society, said that he regarded the two diseases as essentially distinct, although having some analogy to each other. Dr. Hall's son, he believed, had received the variolous virus, and it had done its worst. He might certainly be unlucky enough to have another attack, but the probability was he would not.

Dr. Stewart had brought forward his case as a contrast to that of Dr. Webster, which had terminated in death; and also to make known the prejudice against vaccination, and the injurious consequences of inoculation, which ought never to be practised, unless it were proved to be a complete protection against the disease. This Dr. Mayo had shown it was not. 1,500 cases of secondary small-pox in seven years, out of two or three millions of people, did not disprove the

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value of vaccination, which was well shown in those districts in St. Pancras which he had visited, where the worst cases of the exanthem had been visited by vaccinated persons without danger, although the sick were lying in close, ill-ventilated rooms.

The anniversary meeting was held on the 1st of this month, Dr. Addison presiding; when it appeared from the treasurer's report that the Society had exceeded its receipts during the past year by 308*l.* 7s. 10d., the receipts being 1809*l.* 9s. 7d., the expenditure 2117*l.* 17s. 5d. After the special business of the day, the election of officers, &c., had been transacted, Dr. Addison delivered the annual address, in the course of which he feelingly alluded to those members who were lost to the Society by death during the preceding twelvemonth,—Dr. Prout, Dr. Haviland, Mr. Crosse, Mr. Malyn, Mr. Safford Lee, and Mr. Joseph Freeman. He read also a brief sketch of each of these gentlemen; that of Dr. Prout having been written by Dr. Golding Bird; of Dr. Haviland by Dr. Paris; of Mr. Safford Lee by Mr. Quain; and of Mr. Joseph Freeman by Mr. Green.

MEDICAL SOCIETY OF LONDON

Dr. J. R. Bennett, President, in the Chair.

THE NEW SUPERPHOSPHATE OF IRON.

Dr. Routh stated, in reference to the new preparation of iron he had brought before the Society on a former occasion, that it had been analysed and found to be a new salt—a superphosphate of iron dissolved in an excess of phosphoric acid. It was quite free from any ferruginous flavour, and was indeed exceedingly pleasant to take, so that it was very well adapted for children. As he had said before, he believed it be more speedy in its operation than many other preparations of iron. It had been now prepared in the form of a syrup by Mr. Greenish, of 20, New-street, Dorset-square, which is much cheaper than that of the iodide of zinc. He could strongly recommend it to the Profession.

SPONTANEOUS COLLAPSE OF THE WALLS OF THE ANTRUM.

A paper by Mr. White Cooper was read (and illustrated by a portrait and cast) of a case of spontaneous collapse of the walls of the antrum. The patient was a respectable, young Irishwoman, of healthy constitution and strong frame, who, nine years ago, perceived a dusky mark beneath the left eye; after a time, this extended down by the side of the nose, and was followed by a sinking of the cheek in that situation; there was, however, neither pain nor uneasiness. After this had existed nearly seven years, gradually increasing in extent, she applied to Mr. Cooper on account of the tears flowing over the cheek. Palliative measures were adopted, and this unpleasant symptom speedily subsided. This was early in 1849, and since that time the sinking of the anterior wall of the antrum has steadily continued to increase; it has now given rise to considerable deformity, the appearance closely resembling that which would have arisen had a large portion of the superior maxillary bone been removed, and the integument sunk. The teeth on the affected side were in a most unhealthy state, and two were removed in 1849, in the hope that the morbid action might be arrested; but such has not been the case. Mr. Cooper has not been able to find a similar case related in any work.

Mr. White Cooper, in replying to questions stated that the teeth were extracted because they were much decayed, and it was thought they might be in some degree the cause of the collapse of the cavity. He did not think his patient had ever had syphilis, nor had she mollities ossium or melanosis. In fact, she was a strong healthy woman, and had not received any injury which could have caused the deformity. The anterior wall of the cavity felt as if it were sunk deeper than usual.

Mr. E. Canton would explain the retrocession in these cases by the growth of a tumour from the floor of the cavity, its adherence to the anterior wall, and its subsequent gradual spontaneous cure. The decayed state of the teeth supported this view, as he thought that might depend on the pressure of the tumour against their nerves, especially as the teeth on the other side were sound, whereas, in ordinary caries, teeth decay symmetrically.

Mr. Chippendale would explain it by the closure of the foramen between the antrum and the nasal fossa, and the repression of the anterior wall by the pressure of the external air. He objected to extracting sound teeth in antrum disease, as Liston's incision was equally depending and more convenient.

Mr. Pilcher referred the deformity to original malformation, increased during development, and spoke of the case of a boy who had a tumour, apparently, he thought, a nævus, connected with the antrum, and projecting through an aperture in it. If that tumour were cured spontaneously, a falling in of the defective wall might take place.

Mr. White Cooper objected to Mr. Chippendale, that if the foramen were closed, matter would accumulate in the cavity, and the walls would bulge. The deformity could not be an original malformation, as it only commenced seven years ago.

Mr. Alfred Canton said, as a reason for extracting the teeth, that they were much decayed, and, although he felt with Mr. Chippendale, that sound teeth should not be removed, still, in the case before the Society, it was right to do so, as their state of caries might have assisted in producing the deformity, and their removal, consequently, might stop it. Mr. Cooper had omitted to mention the drawing down of the lower eyelid on the left side. It was well marked.

SUPPURATION OF THE HIP-JOINT.

Dr. Rogers briefly described a case of acute inflammation of the right hip-joint, in a strumous, emaciated child, which rapidly terminated fatally. The examination of the hip-joint showed that it was full of laudable matter, and that no other disease existed.

CARIES OF THE PETROUS PORTION OF THE TEMPORAL BONE.

Mr. Willing, of Hampstead, detailed at some length the case of a child, eleven months old, in whom there occurred caries of the petrous portion of the right temporal, implicating the spinous process of the sphenoid, and part of the basilar portion of the occipital, with complete disorganisation of the vessels and nerves passing through their foramina. In addition to the signs of general ill health, the child had long been subject to a discharge from the right ear, and some months before death the left side of the face was palsied, the loss of power being more evident a week prior to decease. Pain was evidently felt on pressure on the mastoid. All these symptoms increased, the discharge became profuse and bloody and very offensive, the pain on pressure more severe, the parts yielding to the touch. The child was sensible to within twelve hours of her decease, but died convulsed. The *post-mortem* appearances were those of congestion and effusion into the brain, a small abscess at the posterior part of the right middle lobe, while the bones were in the state above described.

SURGICAL SOCIETY OF IRELAND.

At the last meeting but one, Dr. Fleming read a valuable and practical paper

ON THE USE OF CHLOROFORM,

glancing at all the facts hitherto known respecting this agent. He was inclined to believe, that the chief danger arose in cases where long-continued sickness had produced much debility of the frame. In such cases, and where doubts existed as to the propriety of using this agent at all, he spoke of having given, before the use of the chloroform, as much of a stimulant, such as brandy, as would counteract the depressing effects of the drug. Several cases of much interest were given confirming this practice; amongst the rest, a case where circumstances obliged the surgeon to perform a capital operation on a patient who had a large cavity in both lungs. The patient was not worse after the operation. Dr. Fleming also adverted to the point, that in different instances the drug produced strong spasms of the sphincters, and hence was unsuited for operations about the rectum.

UNUSUAL ACCIDENT TO THE ANKLE.

At the last meeting of the Society, Dr. Power detailed a case of interest, where a sweep in a drunken brawl had his ankle injured in such a way as to tear the ligaments joining the tibia and fibula. The deformity produced was exactly like a varus, and the patient was rendered at once incapable of walking. The most minute examination could not detect any crepitus, at the same time that the two long bones were much more mobile than natural. The treatment consisted in an application of Dupuytren's plan for

fractured fibula, except that in this case the pad was placed on the outside, instead of the inside of the leg. The patient was seven weeks under treatment, and left the hospital cured.

It was the opinion of some oft he members, that there was a fracture of the end of either the tibia or fibula.

Dr. Field detailed a most interesting

CASE OF PENETRATING WOUND OF THE ABDOMEN.

It was inflicted by the patient himself with a carving-knife; and there were grounds for supposing that it had entered five inches, and had wounded one of the mesenteric veins, as well as a branch of the lumbar plexus. The wound was situated to the left of the umbilicus. The patient was found pulseless, and still bleeding profusely, the blood presenting the venous character. By the introduction of a dossil of lint and strapping, with stimulants, the bleeding was controlled, and the patient rallied. The lint was removed after three days, and gave exit to some fluid fæces. It is only necessary to state, that there were few or no symptoms of reaction or inflammation. For some days the patient voided by stool some clotted blood, at the same time that he was much annoyed by pain and jerking down the front of the left thigh. This last symptom was the most distressing the patient suffered, and required opiates for its relief. He was treated entirely by opiates and salines when he had rallied from the state of depression consequent on the loss of blood. The wound finally healed up and the patient did well.

Some members of the Society thought the introduction of the lint a most hazardous practice, forgetting that there was scarcely any other which in this peculiar case could have been adopted, and also the fact, that the patient recovered. It was the opinion too of the Society, that the repeated bleedings had prevented the inflammation, which was almost certain to have arisen under other circumstances.

MEDICAL NEWS.

THE FELLOWSHIP OF THE ROYAL COLLEGE OF SURGEONS.—The junior examinations for this distinction commenced at the College on Wednesday last, when the following questions in mathematics were submitted:—

1. Explain the reasons for the common process of multiplying integers, illustrating your explanation by an example.

2. From $\frac{5}{8}$ths of $\frac{4}{5}$ths of a crown subtract $\frac{3}{4}$ths of $\frac{4}{15}$ths of a guinea, and express the result as the decimal of 1*l.*

3. Extract the square-root of 13 to 4 places of decimals.

4. If n be a positive integer, prove that $x^n - y^n$ will be divisible by $x - y$.

5. *A* was 12 years old when *B* was born, and in 4 years more *A*'s age will be to *B*'s as 3 to 2: required, the present ages of *A* and *B*.

6. Solve the following equations:—

(1.) $\frac{3x+1}{x-1} - \frac{3x-1}{x+1} = \frac{2x+5}{2x^2-2}$ (2.) $x + 2y = 2x - y = 9$.

7. If two triangles have two sides of the one respectively equal to two sides of the other, and the contained angles equal, prove that the triangles will be equal in every respect.

8. The square constructed on the hypothenuse of a right-angled triangle is equal to the sum of the squares constructed on the sides which contain the right angle.

9. If any point in the circumference of a circle be joined with the two extremities of any diameter, the joining lines will be perpendicular to each other.

10. The straight line which bisects the vertical angle of any triangle divides the base into two segments, which are to each other as the adjacent sides of the triangle.

11. Show how the true weight of a body may be determined by means of a balance of which the arms are unequal, the ratio of the lengths of the arms being unknown.

12. In the system of pulleys, in which one extremity of the string passing round each pulley is attached to a fixed point, find the relation between the power and weight when there is equilibrium, supposing the strings to be parallel, and neglecting the weights of the pulleys.

Prove that as much as is gained in power is lost in the space through which the power has to cut in order to move the weight through a given space.

13. Prove that in any system of rigidly connected heavy points there exists one and only one point, such that if it be rigidly connected with the system, and be supported, the system will rest in equilibrium in any position. What is this point called?

14. Explain what is meant by the pressure of a fluid referred to a unit of surface, and what by the statement that the pressure is equal in all directions.

15. Show how to find the specific gravity of a solid by weighing the solid in air and in water, (1) neglecting, (2) taking account of the weight of the air displaced.

16. Explain the construction and action of the common pump, and show why it will not draw water from a well beyond a certain depth.

17. Enunciate the laws of refraction, and state what becomes of a ray of light incident internally on the surface of a dense medium at an angle exceeding that at which a ray incident externally in a direction almost parallel to the surface would be refracted.

18. Explain the formation of the image of an object by a convex lens, and point out the circumstances under which the image may be seen distinctly.

CLASSICAL EXAMINATION.—1. Mention the chief events in the life of Alexander the Great.

2. Give some account of Epaminondas, Æschines, Sophocles.

3. Contrast the political character of the Greeks and Romans. How does πόλις come to mean both *city* and *state*?

4. Mention the chief causes which led to the fall of the Roman Republic and the establishment of the Empire.

5. What was the office of the Tribunes and the Prætors?

6. Give some account of Crassus, Cataline, Trajan.

Translate into Latin.—At the head of his victorious legions, in his reign over the sea and land, from the Nile and the Euphrates to the Atlantic ocean, Augustus professed himself the servant of the State and the equal of his fellow-citizens. His will was the law of mankind, but in the declaration of his laws he borrowed the voice of the senate and people; and from their decrees their master accepted and renewed his temporary commission to administer the Republic. In his dress, his domestics, his titles, in all the offices of social life, Augustus maintained the character of a private Roman.

MILITARY APPOINTMENTS.—4th regiment Light Dragoons Assistant-Surgeon Hampden Hugh Massey, M.D., from the 31st Foot, to be assistant-Surgeon, vice Reid, deceased; 31st Foot, Thomas Johnston Atkinson, gent., to be assistant-surgeon, vice Massey, appointed to the 4th Light Dragoons.

OBITUARY.—On the 24th ult., in St. Peter's, Thanet, William Trew, Esq., surgeon, of Marlow, Bucks.—On the 19th ult., at Reading, Thomas Skeete Workman, Esq., surgeon, aged 52.

THE COLLEGE LECTURES.—Professor Owen commenced his course on Tuesday last, before a large number of the fellows and members of the College and Council, and several distinguished visitors. In the course of the lecture he paid a deserved compliment to his esteemed coadjutor, the Assistant Conservator, Mr. Quekett, whose microscopic demonstrations were all that could be desired in minute anatomy, and that, consequently, he should not enter so thoroughly into the subject as he otherwise would have done.

EPIDEMIOLOGICAL SOCIETY.—On Monday, the 3rd instant, the fourth ordinary meeting of this Society was held at the house of the Royal Medical and Chirurgical Society in Berner's-street. Officers having been nominated for the ensuing year, Dr. M'William read a paper "On the Yellow Fever Epidemy in the Brazils in the year 1849." The paper contained many strong illustrations of the contagious nature of this disease, which, in the spirited discussion which followed, were combated by Mr. Baker, a visitor, who appeared to doubt the validity of the evidence on which the author had adduced some of his most important facts. The question assumed an interest and importance which was considered sufficient to warrant an adjournment of the discussion to the meeting in April.

ROYAL BERKSHIRE HOSPITAL.—Two sums, one of 150*l.*, on the nomination of Miss Carter, of Andover, executrix, and one of 100*l.*, on the nomination of Mr. Hopkinson, of Regent-street, under the will of the late Lieutenant-General Sir John Elley, have been contributed to the Royal Berkshire Hospital.

ST. MARY'S HOSPITAL.—In a former number of this journal we expressed our approval of the judicious manner in which the Special Committee had acquitted itself in the recommendation of an efficient hospital staff. We further stated our belief, that the selection thus made would be confirmed by the Governors at large. This result has been realised, for, at the election which took place on the 24th ult., the Committee's report was carried by the almost unanimous suffrages of nearly one

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hundred of the leading Governors of the Charity, who attended on the occasion. It is, however, a difficult matter to satisfy all parties, more especially unsuccessful aspirants to office. Dr. Cormack, in a circular letter distributed among the Governors, complains that a gentleman has been selected to fill the office of Physician to St. Mary's Hospital who was not a candidate at the time of application, namely, the 28th of December, 1850; and that, consequently, his (Dr. Cormack's) claims have been overlooked. Now, with all due deference to the Doctor, who is no worse off than several other gentlemen in the same predicament, we think he would have acted more prudently had he refrained from any overt demonstration, and let the matter drop. No man ever improves his position by proclaiming his defeat. Moreover, the very grievance upon which he lays such stress has no reality; for, in the printed report of the Special Committee on the mode of election of the medical officers, dated the 12th July, 1850, it is expressly stated in page 13, the third line from the top, that "the Committee be empowered, if they see fit, to invite individuals to become candidates."

St. Luke's Hospital.—The Annual Court of Governors was held last week, when it was stated that the hospital was opened for the admission of patients on the 31st July, 1751, and it was proposed that a centenary festival should be held on the 25th June, to commemorate its establishment. The physicians reported that the number of cases deemed curable on admission, treated since 1751 to the present time, was 18,089, 10,778 of whom were women. Of these, 7818 were discharged cured; 508 were removed by friends; 1935 were dismissed as unfit objects for the charity; 6359 were discharged uncured, after twelve months' residence in the hospital; 1381 died and 88, deemed curable, were under treatment at the end of December last. 660 patients have been from time to time re-admitted on the incurable list, 97 of whom were in the hospital on the 31st December last. From 1821 to 1830, the average of recoveries was 47½ per cent.; from 1830 to 1840, 56¼ per cent.; and from 1841 to 1850, 60 3-5th per cent.; thus showing the gradual, but sure results of improved treatment. The recoveries during the past year were 69½ per cent., being, with one exception, a larger proportion of cures than during any previous year. The exceptions to the employment of non-restraint were 2 per cent. Baths were frequently given, with the most satisfactory consequences. The receipts during the past year were 7157*l.* 11s. 7d.; the expenditure, 6,386*l.*; stock purchased, 446*l.* 15s. 6d.; leaving a surplus of 324*l.* 16s. 1d. Lord Overstone was elected President *vice* H.R.H. the Duke of Cambridge, deceased; and the Earl of Abingdon and Mr. Whitbread Vice-Presidents.

The Hunterian Museum.—From a Return moved for by Sir Robert Harry Inglis, and just ordered to be printed by the House of Commons, it appears that the Trustees of the Hunterian Collection have for some time past been in communication with the Government for a grant of money; the following is a copy of their resolution to that effect:—"That the Marquis of Northampton and the Lord Bishop of London be requested to submit to the First Lord of the Treasury, the earnest and respectful desire of the Trustees of the Hunterian Museum, that he will take into his earliest and most favourable consideration the claims of the sciences which that Museum is intended to illustrate and promote; and that, as the liberality of Parliament originally purchased the Hunterian Museum for the use of the nation, and as successive Administrations and Parliaments have since recognised the expediency of augmenting that Museum by successive grants, so as to make it in some degree commensurate to the progress of knowledge; and as the nation has, in like manner, provided for the encouragement of economic geology, and also by its annual grants promotes the enlargement of the collections, and the facilities of study in the science of zoology, as exhibited in the British Museum, and of botany in the Royal Gardens at Kew, the Trustees feel a confident hope that the First Lord will see equal reason to seize the present occasion of rendering the Hunterian Museum, by an enlarged area for its contents, and by a systematic provision for its maintenance, worthy of being the great national depository of the branches of knowledge which it has been instituted to promote."

Western General Dispensary, Lisson-grove, New-road.—We beg to call the attention of our readers to this most excellent Institution. The Charity was founded in 1830; and its plan, uniting the functions of a dispensary on a great scale with an hospital department, has certainly been attended with much benefit to the neighbouring poor. The number of patients admitted annually has been progressively increasing as follows, viz.:—In 1843 the relief afforded was as follows:—With and without letters, 4445; severe accidents taken in, 9; midwifery cases, 0; attended at their own home, 907: while for 1850 the result is as follows:—With and without letters, 23,786; severe accidents, 20; midwifery cases, 145; attended at their own homes, 2946. During the past year the subscriptions and donations amount to 982*l.* 10s. 6d., while the expenditure during the same period has been 1351*l.* 3s. 6d.; and on making up the accounts to the 31st December last, there was found a debt of 115*l.* 17s. 3d.; this debt is mainly caused by the great consumption and heavy expenditure for drugs. No course would be left to the directors, except to partially close the doors of the Institution against the number of applicants, were it not that they felt assured, upon the circumstances of the charity being made known, the more wealthy inhabitants of this large district would not allow the poor to be deprived of aid in sickness, for want of adequate means to continue a charity that has such peculiar claims upon their sympathy for support.

Liverpool.—It may not be amiss to acquaint those in want of professional occupation, that there is a prospect of plenty to do in the way of surgery by the daily expectation of the blowing up of the powder-magazines at Liskeard. The probability is causing much discussion. The lives of 400,000 inhabitants, among which may be included some hundred surgeons, are at stake.

Ladies' Charity or Lying-in Hospital, Liverpool.—The annual meeting of this Institution was recently held in the Blue-coat Hospital. The number of patients during the year had been 1501; and the number of children vaccinated, 1827.

St. Ann's Dispensary, Liverpool.—An eye and ear department has been added to this Institution, as it has been recently discovered that diseases of these organs are very numerous in the neighbourhood.

The Convalescent Hospital.—Her Majesty has just presented two hundred and fifty guineas to this excellent Institution in the name of the Prince of Wales, who has consequently, for life, a bed always at his disposal in its wards.

German Hospital. — At the anniversary festival, held on the 26th ult., it was stated, that from the limited extent of the hospital, the number of in-patients had not much increased; it was 419 in 1848, 474 in 1849, and 494 in 1850. The out-door relief had made greater progress. At the Western Dispensary, in 1848, 48 patients were treated; in 1849, 149; and in 1850, 256. At the Eastern Dispensary, the numbers in the same years respectively were 804, 960, and 1246, and at the Hospital Dispensary 1176, 1786, and 2278. The subscriptions during the evening amounted to nearly 2000*l.*

Yellow Fever is devastating Cayenne, the accounts from which place are deplorable. Pestilence and death are met with in the palace and in the hut. Commerce and agriculture are at a stand still, and it is to be feared that famine will lend its aid to the plague in destroying the wretched inhabitants.

Cholera in the West and East Indies.—Jamaica is not yet free from cholera; the disease is raging to an alarming extent in the parish of Hanover, the town of Lucia in particular. The medical men who were sent out by Government have arrived, and in their letters give a sad account of the condition of Barbadoes, and the want of sanitary measures. It has also re-appeared in Sagua la Grande, and in some other parts of the Havannah. A few cases have occurred among the troops in the city. In British Guiana, where an outbreak of the disease is evidently expected, every feasible measure is being adopted to prevent its appearance among the inhabitants. In Bombay the epidemic is very prevalent. In some days more than a hundred lives are lost by it.

Dismissal of a Medical Officer.—At the meeting of the Board of Guardians of Marylebone, on the 26th ult., a complaint of neglect was made against Mr. Macreight, one of the out-door medical officers, in the case of a female servant, named Young, recently deceased from fatty degeneration of the heart. The statements showed that, in obedience to a medical order from the workhouse, Mr. Macreight saw Young on the 12th ult., and again on the 14th, when she appeared to be better. He then said he had no power to admit her into the workhouse. The next day she was much worse, and it is said that several applications were made to Mr. Macreight to call on her. In the evening, a clergyman sent Mr. Barker, a surgeon, to see her, and he (Mr. Barker) wrote a note, representing that her illness was pressing, and urging her immediate admission; it was received at the house at half-past ten p.m. She died that night. Dr. Hall Davis stated, that medical assistance could not have been of any avail to the deceased. Mr. Macreight explained his not calling on the Saturday, as Young was better the day before, and he did not go, having obtained an order for her admission into the house, which he expected would be sent for. Mr. Michie, a member of the Board, in moving that Mr. Macreight be dismissed, said that "this came of allowing

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Mr. Allen, the chief medical officer, to appoint whom he pleased, when additional medical aid was required. These proceedings brought the Board into disrepute, and they would not be doing their duty, either to themselves, the parish, or the poor, if they did not at once make an example of such conduct." Several attempts were made to modify the severity of this sentence, but it was confirmed by the Board, who would not even allow Mr. Macreight to resign. Without attempting to defend the negligence of their late medical officer, we must say, that this adds another to the many cases of oppression which show the necessity of taking the control of the parish medical officers out of the hands of ignorant and prejudiced men. Boards of Guardians and vestries are totally unfit to deal with medical questions. They cannot understand them, and some of their members are so prejudiced as to make unjust insinuations and charges whenever a question respecting them arises. The late conduct of the Board, recorded in previous numbers of this Journal, respecting the dietary and diseased condition of the workhouse paupers, with the unfounded aspersions then thrown upon their medical officers, will illustrate our statements. Were it not that even such men as compose the Marylebone Parliament may cast a stain upon a man's character by their decision, we would congratulate Mr. Macreight on his deliverance from their tyranny.

Sake Deen Mahomed, the well-known proprietor of the bath and shampooing establishment at Brighton, died there recently, at the advanced age of 102 years. He was born in 1749, at Patna, the capital of Bahar, in Hindoostan.

Between 90*l.* and 100*l.* were recently collected after a charity sermon for the benefit of the Middlesex Hospital.

Death supposed to have been Caused by the Neglect of Poor-law Officials.—On Tuesday afternoon, Feb. 4th, and (by adjournment) on Wednesday morning, Mr. E. Herford, Borough Coroner, held an inquest at the Manchester Workhouse, New Bridge-street, Strangeways, on the body of Elizabeth Flaherty, 39 years of age, who died a few minutes after her removal to the workhouse, on Saturday evening. After a very short consultation, the Jury returned a verdict, to the effect that the death of the deceased had resulted from disease of the lungs and kidneys. The Jury recommended that better provision should be made for the warmth of parties during their removal in the van.

DEATHS *in the Metropolis for the week ending Saturday, March* 1, 1851.

Causes of Death.	March 1. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	503	383	258	1148	10353
Specified Causes	501	382	257	1142	10283
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	175	35	13	223	1936
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	4	29	22	55	581
3. Tubercular Diseases.	58	118	14	190	1776
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	47	34	32	113	1282
5. Diseases of the Heart and Blood-vessels	4	16	21	41	327
6. Diseases of the Lungs, and of the other Organs of Respiration ...	115	89	77	281	1972
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	28	27	16	71	614
8. Diseases of the Kidneys, &c. ...	...	4	5	9	90
9. Childbirth, Diseases of the Uterus	...	10	1	11	107
10. Rheumatism, Diseases of the Bones, Joints, &c.	3	2	1	6	94
11. Diseases of the Skin, Cellular Tissue, &c.	1	...	2	3	6
12. Malformations	2	...	...	2	22
13. Premature Birth and Debility ...	32	3	...	35	239
14. Atrophy	21	...	1	22	166
15. Age	...	...	46	46	704
16. Sudden	...	3	2	5	133
17. Violence, Privation, Cold, and Intemperance	11	13	4	29	244
Causes not Specified	2	...	1	6	70

The Deaths in the several Districts are as follow :—

Districts.	Population in 1841.	March 1, 1851.	Sum of Ten Weeks.
London...	1948369	1148	10353
West	301189	175	1547
North	376568	264	1905
Central...	274199	204	1942
East	393067	234	2238
South	503346	271	2721

1. Small-pox ...	19	Paralysis	20	Disease of Spleen	1
Measles	36	Delirium Tremens	1	8. Nephritis.....	...
Scarlatina ...	19	Chorea	...	Nephria or Bright's Disease ...	1
Hooping Cough	66	Epilepsy	3	Ischuria	...
Croup	8	Tetanus	1	Diabetes	1
Thrush.....	4	Insanity	2	Stone	...
Diarrhœa ...	17	Convulsions	37	Cystitis	1
Dysentery ...	5	Disease of Brain, &c.	12	Stricture of Urethra ...	1
Cholera	...	5. Pericarditis...	2	Disease of Kidneys, &c.	5
Influenza ...	3	Aneurism ...	2	9. Paramenia ...	1
Purpura and Scurvy	1	Disease of Heart	37	Ovarian Dropsy.....	1
Ague	...	6. Laryngitis ...	3	Childbirth (see Metria)	8
Remittent Fever	4	Bronchitis ...	131	Disease of Uterus, &c.	1
Infantile Fever	...	Pleurisy	3	10. Arthritis	1
Typhus	31	Pneumonia...	104	Rheumatism	3
Metria or Puerperal Fever	3	Asthma	33	Disease of Joints, &c.	2
Rheumatic Fever	...	Disease of Lungs, &c.	7	11. Carbuncle ...	1
Erysipelas ...	...	7. Teething	15	Phlegmon ...	1
Syphilis	2	Quinsey	2	Disease of Skin, &c....	1
Noma or Canker.....	...	Gastritis	2	17. Intemperance	2
Hydrophobia ...	...	Enteritis.....	5	Privation of Food.....	...
2. Hæmorrhage	3	Peritonitis ...	7	Want of Breast-milk	5
Dropsy.....	23	Ascites.....	2	Neglect	...
Abscess	3	Ulceration (of Intestines, &c.)	4	Cold	...
Ulcer	...	Hernia	5	Poison	2
Fistula.....	...	Ileus.....	2	Burns and Scalds	5
Mortification	8	Intussusception	...	Hanging, &c.	3
Cancer	17	Stricture of Intestinal Canal	1	Drowning ...	1
Gout.....	1	Disease of Stomach, &c.	7	Fractures ...	6
3. Scrofula	1	Disease of Pancreas ...	...	Wounds	5
Tabes Mesenterica	14	Hepatitis.....	5	Other Violence.....	1
Phthisis (or Consumption).....	146	Jaundice	4	All Violence	23
Hydrocephalus.....	29	Disease of Liver	9		
4. Cephalitis ...	8				
Apoplexy.....	29				

BIRTHS AND DEATHS.

	Births.		Deaths.		Births over Deaths.	
Males	784	1591	580	1148	204	443
Females	807		568		239	

TO CORRESPONDENTS.

Our anxiety to complete the very interesting Memoir of Dr. John Reid, of St. Andrews, has induced us to omit in the present Number many valuable communications. Several Correspondents will be so kind as to accept our general acknowledgment of their papers, to which we hope to give early insertion. We must, however, protest against gentlemen forwarding their communications to more than one Journal. We have already expressed ourselves very decidedly upon this subject; and it is a matter of considerable surprise, that gentlemen venture to repeat a practice which we have so repeatedly refused to countenance.

[To the Editor of the Medical Times.]

Sir,—Can you inform the Licentiates of the College of Physicians and the Medical public at large, on what subjects certain eminent Fellows are to lecture this year? It is to me most extraordinary, that the College should persevere in the old plan of not announcing the subjects of the Lectures. How can they expect medical men to leave their other avocations to attend a lecture upon an unknown subject?— I am, &c., S. W. J. M.

A Subscriber.—Most certainly; although delay cannot always be avoided. If our Correspondent will name the work to which he alludes, we will endeavour to comply with his request.

We are much obliged to our friend Dr. Merei, and regret that the many lectures we are pledged to complete must forbid us, at this time, to commence the publication of another course.

Mr. Hardey.—The mistake committed also by the "Provincial Journal" is only to be laughed at; besides *de mortuis nil nisi bonum*, and that, even although the late Cabe Clark, of Banbury, was M.D., and also "kept a shop for the sale of hosiery goods up to his death."

A Constant Subscriber is under a mistake. The Hunterian Oration, in our last, was not headed "which *should* have been delivered," but "which *was not* delivered."

A Subscriber must pardon us if we decline to answer questions of which any bookseller will inform him.

Communications have been received from—

Dr. Butler Lane, Ewell; Mr. Hainthorpe, of Hexham; a Subscriber; Mr. Square, of Plymouth; Mr. Baker, of Shirley; Dr. Hastings, of Cheltenham; Dr. Robert Knox; Sir Alexander Downie, Physician to the English Legation at Frankfort; Mr. Harday; Dr. Dudgeon, of Gloucester-place; S. W. J. M.; Dr. George W. Balfour, of Cramond, near Edinburgh; Mr. Hunt, of Bedford-square; Subscriber; Mr. Holmes Coote, of St. Bartholomew's Hospital; Dr. Funck, of St. James's-place; A Constant Subscriber and Member of the College of Surgeons for Thirty Years; Mr. Adams, of the London Hospital and St. Helen's-place.

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ORIGINAL LECTURES.

CLINICAL LECTURE

ON SOME CASES OF MALIGNANT DISEASE.

DELIVERED AT

ST. BARTHOLOMEW'S HOSPITAL,

By E. A. LLOYD, Esq.

Gentlemen,—In the course of my present lecture, I will relate to you some cases of malignant disease occurring in the medullary or soft form.

The history of malignant disease is a subject much too long for me to enter into at present; and indeed it is involved in so much obscurity, that, even if my time would allow me, I should not be able to give you much information as to the nature and origin of this most distressing malady.

We have a great deal to learn, both of its causes, nature, and treatment; nevertheless I fully expect that we shall at some future period be much more enlightened on this subject, and that malignant disease, which now defies all remedies, will some day be as easily governed as many other maladies which are at present under the control of treatment.

Syphilis occasioned more serious and distressing consequences than most other diseases, except small-pox, before mercury was employed for its cure.

And here I may add, that I can recollect the time when that medicine was considered a specific remedy, and the only one to be depended on, for syphilis, and often given to such an extent as to cause a disease itself much more difficult to cure than the one it was intended to relieve. But now the greater number of the cases of syphilis are to be permanently cured by other remedies—remedies leading to no ill consequences whatever. Therefore, when we consider that both syphilis and small-pox can now be comparatively so easily controlled by treatment, I think we may reasonably expect that, at some future period, a remedy will be found for malignant disease also. And I state this with the more confidence, because we sometimes—very rarely—witness true cancerous diseases disappear from the operation of natural causes alone. This occurred in the case of a woman whose left breast I had removed for true scirrhus. Cancerous tumours formed on different parts of the body, but subsequently, after some months, entirely disappeared. At a later period, the disease occurred in the lungs and liver, and of this she died.

I will now narrate to you the particulars of a case, which is at present in the hospital—I mean the patient whose thigh I amputated a short time ago.

In directing your attention in this case, I wish you particularly to observe the great doubt which existed in the minds of many of the surgeons who saw it, as to whether the disease was of a malignant character or not. And I advert to this point here, that I may especially impress you with the great necessity there is of your attentively studying this class of disease in all its various forms; and I strongly urge you to store your minds with that practical information which can only be clinically obtained. In these cases there is often great difficulty in the diagnosis; although, in this instance, I certainly was surprised, that so many persons remained in doubt, even after the limb was removed.

The facts of this case have been collected for me by Mr. Fletcher, one of my dressers; and he has given so good a description of the disease, and so clear a history of the case, that I cannot do better than narrate it to you as nearly as possible in his own words.

CASE OF MALIGNANT DISEASE OF THE LOWER THIRD OF THE FEMUR,

FOLLOWING AN INJURY.—AMPUTATION OF THE LIMB.

Edward M——, aged 19, an agricultural labourer, apparently healthy, was admitted into Pitcairn's Ward, under Mr. Lloyd, on the 15th of November, with a large swelling at the lower part of the left thigh.

On examination, it was found to be of a roundish form, smooth on its surface, and projecting in some degree all round the femur, but more so on its outer side; it extended as low down as the condyles, and surrounded the lower third of the shaft.

The tumour was tense in every part, but softer and more yielding at some points than others. It evidently contained a considerable quantity of fluid, and, moreover, there was a peculiar crackling sensation felt on its surface in several places.

The skin on the outer side was reddened, but not adherent to the tumour, and a few enlarged superficial veins appeared in the integument over the swelling. The knee-joint was moveable, and appeared healthy.

He stated, that about six months ago he sprained his knee, and had had pain in or about the part ever since, though he had only lately been compelled to desist from work; that about a month after this sprain he received a blow on the knee from a cricket-ball, which hurt him considerably at the time; he soon, however, recovered from the immediate effects of the injury, but the limb afterwards always felt weak upon any extra exertion. About ten weeks previous to his admission he sprained his knee a second time, and immediately after that a swelling commenced, which had continued to increase in size up to the present time; that the growth of the tumour had been very rapid during the three weeks previous to his admission, and, being alarmed at this, he applied to a surgeon in the country, who told him it was a scrofulous abscess, and ordered him some medicine, directing him at the same time to rest the limb; but not getting any better under this treatment, he had been induced to apply to the hospital.

The aspect and general characters of the swelling, were like those of a malignant growth, but the fluctuation appeared so distinct as to induce many persons who saw it to believe it was merely a case of chronic abscess.

On the 17th, Mr. Lloyd, convinced of the malignant nature of the disease, determined, with the concurrence of his colleagues, to amputate the limb; but, before commencing the operation, he was induced to puncture the tumour, in order to remove all doubts that might exist as to its nature. Directly the lancet was introduced, about twenty ounces of dark blood gushed through the opening; a probe was then passed through some soft substance, that was easily broken down, to the femur, which was bare and rough for some extent. This evidence was quite sufficient to convince most of those who saw it, that the tumour was of a malignant nature, and every one agreed that immediate amputation was advisable.

The circular operation was accordingly performed above the middle of the thigh, and the stump was dressed with sutures, strips of adhesive plaster, and bandages.

There was considerable hæmorrhage from numerous vessels, both arteries and veins, during the operation, and it was found necessary to tie the femoral and profunda veins, as well as a great many smaller vessels.

The patient was kept under the influence of chloroform during the whole time of the operation.

For about a week after the thigh was removed, the discharge from the stump was thin and unhealthy; and to alter this, a piece of lint, dipped in balsam of Peru, was applied to the wound, and in two days a copious healthy discharge was produced.

The patient has gone on well ever since; he is still in the hospital, and in a very favourable state. It should have been stated that there were several enlarged glands in the upper part of the thigh, which were very tender to the touch. They are reduced almost to their natural size.

On the limb being examined after the operation, several persons who were present again expressed some doubts as to the nature of the disease, but a subsequent microscopic examination has proved clearly, by observing large cells, excessively delicate and crowded with nuclei, containing nucleoli, that the disease was undoubtedly malignant.

That part of the disease which lay at the outer side of the lower third of the femur, consisted of a large and nearly hemispherical sac, full of dark blood, partly fluid, and partly clotted; and that portion of disease which was at the inner side of the bone, was a lens-shaped mass of firm, white, medullary-looking matter, containing pieces of bone in its substance. The covering of this mass was continuous with that of the sac on the outer side of the bone, and was composed of periosteum and bone.

The periosteum of the cyst was thick and soft; it was firmly connected with the muscles and other parts external

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to it, and was continuous with the healthy periosteum of the rest of the shaft; in some places, however, it appeared sacculated and thinned.

The bony part of the cyst was arranged in prominent ridges, variously branched and connected, so as to form an irregular net-work, much resembling that of the pectinate muscles in the right auricle; the margins of these ridges were rough and irregular, somewhat like broken edges, and their substance was so fragile and weak, that the wall of the cyst was easily bent at nearly every part.

There appeared to be but one cyst. The solid part of the disease had the appearance of medullary substance, blotched with blood, and containing portions of hard, minutely cancellous bone, scattered irregularly in every part of its substance.

The greater part of the cancellous structure of that part of the femur which was enclosed within this mass of disease was solid, very hard, heavy, and ivory-like; this appeared to have been produced by gradual consolidation of the cancellous texture, for some faint traces of its original cancelli could be discerned in those parts which had undergone this change. A medullary substance, like that mass which was situated on the inner side of the bone, only rather firmer in consistence, was infiltrated in irregular masses in those parts of the cancellous structure which were not consolidated. There was a separation of the outer laminæ of that part of the wall of the shaft which was enclosed within the disease; and, upon looking down the cut surface of the shaft, the outer layers of its wall were distinctly seen gradually separating, the separation commencing about two inches above the disease; two or three of the outermost layers ceased abruptly at the cyst, as if they had been carried off with its periosteal investment; and the remainder, retaining their position, were rough, irregular, and here and there dotted with ivory-like patches.

It appeared as though the medullary growth had commenced in the wall of the bone, and, as it increased in size, had separated and pushed out the external layers of the wall, at the same time wasting and consolidating the cancellous structure of the interior. Under the medullary growth on the inner wall of the shaft, there was a similar but not so extensive separation of the laminæ.

One or two small isolated masses of mingled osteoid and medullary matters were attached to the outside of the shaft, about an inch above the border of the cyst, but none were found higher up in the thigh, nor anywhere in the soft parts.

The knee joint was healthy.

The front of the tibia presented that blotched, purpurous appearance of surface so often seen in connexion with medullary disease of the lower end of the femur.

The anterior surface of the patella was also deeply vascular, and a livid hue extended for nearly a line into its substance.

When there is any doubt as to the malignant nature of a tumour, it is advisable to puncture it before you perform any operation; but the puncture should be made only just before you are about to operate, as malignant tumours are liable to inflame, and, when they do, often excite serious constitutional disturbance; and, if any doubt exists in your mind after the puncture has been made, you have only to place under the microscope a little of the fluid which comes from the wound, when you will be easily able to form a correct opinion with regard to the malignant or innocent nature of the disease.

I have known cases, both malignant and benign, where this has been done with advantage; indeed I have never failed to arrive at a correct conclusion as to the nature of the disease, in any case in which this precaution has been taken.

In the foregoing case I did not consider any microscopic examination necessary, for, if any doubt existed, it was all removed from my mind directly the puncture was made into the tumour.

There is one point in the treatment after the operation to which I wish to call your attention. I mean the use of Balsam of Peru as an application to the stump, when the discharge is thin and unhealthy. It does not cause any material pain or uneasiness, and in many cases soon produces a healthy appearance of the wound.

The next case I shall relate resembles the former one in a marked degree. The patient was of nearly the same age, and the growth of the tumour was of about the same duration, (viz., about two months,) and likewise followed an accident which happened four months before her admission into the hospital.

For the particulars of this case I am indebted to Mr. Mason, who was my house-surgeon at the time the operation was performed.

CASE OF MALIGNANT DISEASE OF THE RIGHT THIGH.—AMPUTATION OF THE LIMB.

This patient, M. A. King, aged 24 years, came from Upnor, in Kent, and on admission gave the following history. Her health had always been pretty good, and before the commencement of the present symptoms, she had always been stout and hearty. There is no history of any malignant disease having occurred in any other member of the family. She stated that, on the 26th of December, 1848, she fell down while walking along the curb, and was then carried home immediately, as she could not walk. A surgeon was sent for, who told her that she had dislocated her knee. He extended the limb, and put on a long side splint, and kept her in bed for two months. At the expiration of that time, she got out of bed, and managed to walk with crutches, the limb being supported in a sling, which was passed round the neck and under the sole of the foot, and it was then that her attention was directed to a particular swelling in the thigh, which the surgeon said was owing to a fracture of the bone. Her health beginning to suffer, she thought it prudent to get further advice, and for this purpose she applied to St. Bartholomew's Hospital. She was admitted into Queen's Ward, under Mr. Lloyd, on April 5th, 1849.

On examining the limb the next day, a large swelling was observed occupying the lower part of the thigh, and the knee joint; the precise height to which it extended up the thigh could not be determined. It felt for the most part solid, but in some parts so elastic and yielding, that some persons suspected there was fluid, and that the swelling was common thickening of the soft part in a state of suppuration, consequent on the injury that the bone had received.

The skin could hardly be said to be discoloured, but there were distended veins traversing the swelling. There was no tenderness on pressure; but a constant dull aching pain was experienced, especially at night, natural sleep being thereby entirely prevented. The glands in the groin were not enlarged. The foot and ankle of the affected limb were œdematous.

The disease had during the last few days increased with rapidity. There was great constitutional disturbance; the skin was dry and hot, the pulse constantly more than 120, tongue furred, very little appetite, and thirst urgent.

Mr. Lloyd pronounced the tumour to be malignant disease, and this opinion was likewise held by the majority of his colleagues, who concurred in the necessity of an operation being performed without delay. Mr. Lloyd proposed amputation at the hip-joint, as affording the best chance of removing the whole of the disease, it being his opinion that the bone was implicated in the disease; that there were no means of determining at what part the bone was sound, and that therefore it would be most judicious to remove the entire bone. This proposition was overruled, on the ground (as was stated) that the patient would not bear so formidable an operation, and it was ultimately decided to perform the circular operation high up.

The patient obstinately refused for many days to submit to any operation, but the circular amputation was performed on Monday, April 16, 1849, and the section of the femur not appearing sound, an inch and a half more of the shaft was dissected out and removed, about as high up as the base of the trochanter minor.

Before commencing the operation, an incision was made through the centre of the swelling, to convince the sceptical as to the nature of the disease. A considerable gush of blood ensued, although the femoral artery at the groin, was forcibly compressed by an assistant, and in a few moments it was evident to all that the disease was, as had been diagnosed, medullary sarcoma.

At the section both of the common integuments and of the muscles, blood flowed copiously from the divided vessels. The blood was of a very dark colour. The quantity altogether lost was very considerable. Ten or twelve ligatures were applied; the femoral vein was tied.

The edges of the wound were brought into apposition, and retained by three sutures; strapping, pads of lint, and a bandage were also applied.

The patient was kept under the influence of chloroform during the whole time of the operation.

After the operation, she went on better than could have

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been expected for a few days; but subsequently, in consequence, as I believe, of a cause in no way dependent on the disease under which she had laboured, or on the operation she had undergone, an affection of her bowels occurred; she gradually lost strength, and, on the twelfth day after the operation, she expired.

Under these circumstances, it would be useless as well as tedious to narrate the symptoms and treatment from day to day.

Under the microscope the diseased structure showed all the usual characters of malignant growths.

In this case no *post-mortem* examination was allowed, so that we could not tell whether the disease existed in any other part of the body.

About three years ago I removed, in this hospital, the leg of a young man of the name of Chapman, who was a patient in Bentley's Ward, for a disease in the foot, of the same character as the foregoing. In that case there was enlargement of some of the femoral glands, and also dulness on percussion over the right side. The disease was progressing rapidly, the patient was losing strength, was unable to sleep from pain, his tongue was furred, and his pulse very rapid. The limb was removed at the upper part of the lower third. The wound was very slow in healing. A rapid pulse, (about 120,) hot skin, and furred tongue, continued for some months; but subsequently, under the continued use of quinine, sulphuric acid, and conium, all did well, and a short time ago I saw the patient in good robust health. The stump did not heal soundly till some time after he had gone into the country, but it is now so sound that he walks well with it resting in a socket, to which is attached a foot with a spring, so as to allow motion at the instep. Mr. Wormald examined the parts after the operation, and found that the disease, which was medullary sarcoma, had made its way above the ankle-joint, between the tibia and fibula. It would appear, therefore, that I deprived the man of no more of his limb than was absolutely necessary.

I once amputated at the middle of the thigh for a disease of a somewhat similar nature to the above, occurring in a young woman. After a protracted recovery, she lived without any return of disease for more than eleven years, and then died of another disease; but, as she died in the country, I had no opportunity of ascertaining what was the state of her viscera.

I consider that these cases afford us some encouragement to operate in malignant diseases, when the whole of the disease can be removed, and all other circumstances are favourable.

The result in the two next cases to which I will briefly direct your attention will tend somewhat to show that there is no great clemency in allowing such patients to die a natural death, as it is called.

The first case occurred when I was a pupil, and the particulars of it I read to the Medical Society of this hospital many years ago. There was another case very similar I met with not very long after the former, which I also related at the same time, but I have not been able to put my hand to the notes of it.

CASE OF MEDULLARY SARCOMA, OR FUNGUS HÆMATODES.

Mary Gurney, aged 35, servant to the master of St. Luke's Workhouse, was, for between three or four years previous to her death, afflicted with pain in her right hip and thigh, which were considered rheumatic. It commenced, she stated, after having very much fatigued herself by walking. She then suddenly sprained her hip, by endeavouring to reach something at a considerable height. She felt at the time, she said, as if something in her hip had cracked. The pain and inflammation produced by this were such as to oblige her to keep quiet for several days, through which means, and with the common treatment in such cases, she became apparently well. But ever after, on the least exertion, or on catching cold, she felt pain in the part. About four months antecedent to her death her health became very much deranged, and she had so much pain in her hip and thigh as to be unable to do her work. She was now placed under the care of the apothecary to the Institution, who administered such medicines as he was in the habit of prescribing in cases of chronic rheumatism. But the disease rapidly got worse, so much so that the slightest motion of the limb occasioned very great pain; and, on further examination, it was discovered that the parts were rather swollen, and it was considered probable that an abscess was forming. She was consequently now (ten weeks previous to her death) placed in the Infirmary, under the care of the Surgeon to the Institution. The symptoms at this time were very great pain in the hip and thigh, with some swelling high up, but no external redness. She complained that increased pain was occasioned by the slightest movement of the part. She was rather feverish, pulse quick, her skin dry, but not very hot; her tongue was white, her appetite diminished, and her bowels irregular. She was directed to be confined to her bed, the limb to be fomented with decoctum papaveris, haust. salin. cum antimonio to be taken every six hours, and pil. rhei c. calomel alt. noct. Various measures, constitutional and local, were subsequently employed for the purpose of relief; but, in spite of everything, the disease advanced, the swelling of the thigh increasing rapidly, and communicating to the hand, when pressure was made, a sense of strong pulsation. At one time, so generally was the pulsation felt over the thigh, that some eminent pathologists suspected that there was aneurism. The swelling at its inner part threatened to burst, but at this part no decided fluctuation could be felt. The swelling continued to increase, and the pain became so violent and incessant, that frequent delirium was the consequence. Opium was administered, but afforded no material relief, but the exhibition of conium, in gradually increased doses, procured great ease, but, producing sickness, it was obliged to be discontinued. After this matters got worse and worse; the limb acquired an immense size, the leg and foot being œdematous, the patient lost her appetite, daily grew weaker, and died a miserable death.

After death, when examining the limb, which formed an immense mass extending from the crista ilii to the knee, upon making an incision along the most prominent part of the tumour, if it may be so called, through the common integuments, it was perceived that the fascia had given way, so that for a considerable extent the diseased parts were in immediate contact with the skin; that the femoral artery was pushed up so as to lie on the surface of the tumour; as also were the branches of the profunda, but in other directions. The nerves also were thrust out of their natural course, but not to an equal degree with the blood-vessels. (There had been no paralysis during any period of the course of the disease.) The whole of the muscles of the thigh, almost as far as their insertions, were entirely destroyed,—dissolved as it were,—or converted into a new structure, as in parts they retained their natural configuration; but, being touched, were found to consist of a soft pulpy substance, such as you might easily run your finger through. The appearance of the whole mass was very like that of flesh running into a state of putrefaction, mixed with a substance resembling the medullary portion of the brain, masses of coagulated blood being here and there interspersed. The muscles of the right buttock were in a similar condition. The upper two thirds of the femur except the head were completely destroyed or broken down, as also were the right os innominatum, except the crista of the ilium and the acetabulum; and with the whole pulpy mass portions of the broken down bones were intermixed. The central portions of the tumour had projecting into it membranous septa containing ossific deposits, which more or less separated the mass into different portions. Other parts of the body, on account I believe of private reasons, were not permitted to be examined.

I had an opportunity, as I stated above, of being present at the examination of another case very similar to the former some time after, but I am unable to find my notes of it. But I well recollect that the two cases corresponded very closely, both as regards their progress and the pathological appearances after death.

Another case, too, a female of about 30 years old, being also the subject of it, was in St. Bartholomew's Hospital under my care, about two years ago. She was admitted by Dr. Burrows, supposed to have rheumatism; but the Doctor, on examination, discovering a swelling at the upper part of the thigh, turned her over to me. My time will not permit me to give you the details of this case, but I may state the swelling, which was attended with intense pain, and a constant sensation of throbbing increased with rapidity; that the patient left the hospital, was taken into the country, and there soon died, after having suffered most severe agony. The morbid parts were examined after death, and were found to exhibit well-marked encephaloid disease.

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Now, gentlemen, the preceding cases afford much matter for serious and important consideration, but at present it will be in my power to refer only to one or two points, and that only very briefly. The first point which presents itself to my mind in considering some of the preceding cases, refers to a question on which difference of opinion exists among experienced pathologists. It is, Can a simple tumour, long existing in a part, without occasioning any mischief, be converted at length into one that is malignant? That this conversion may take place I have no doubt. A nævus having existed from birth,—perhaps thirty or forty years,—has been known to be almost suddenly converted into a melanotic tumour. I removed a tumour of this kind, in this hospital, about two years ago. The subject of it was between 30 and forty years of age. She had had a nævus of the more ordinary kind from her birth, without experiencing any inconvenience from it till her last confinement, which had taken place about three months previous to her admission into the hospital. After its removal, in a very short time melanotic disease appeared in almost every part of the body, and the patient in a few months fell a victim to it. Thus no doubt a constitutional tendency to this particular disease arose, and the original morbid part, the nævus, was first obnoxious to it. We often see the testes, the ovaries, the uterus, and other parts of the body, become the seat of malignant disease, the original structure having been metamorphosed into a new substance. In cases to which I have adverted above, you see that the muscles themselves had undergone a similar change; we witness the same in the bones. Now, if natural parts endued with the greatest vital power can be so changed, is it too much to suppose that a new formation,—a parasite as it were, dependent for its nourishment on the parent parts, should be liable to have its action changed, or to become absorbed, and a new structure be built up in its place? Numerous other facts and analogies might be adduced to support this view of the subject.

There is at the present time a point of stirring interest connected with the subject of this lecture, as divers opinions are entertained among surgeons on the subject, and much comfort or misery to the patient is often involved in its decision. The question is, Are we, or are we not, to operate in cases of malignant disease? I answer, That in many cases it is not only right to operate, but our bounden duty to urge patients to submit to an operation. The operation is now always painless, and it may be the means of giving the patient, as in some of the cases related above, several years of comfortable existence. And although we are all pilgrims here on earth, travelling we hope to a better and an enduring home, yet we all long to linger on the way, and few without a pang can separate, shattered though it be, from their tenement of clay. To prolong the life of a parent one, two, three, or more years, may prove of the greatest advantage, in many respects, to a young family. The mere presence of a mother, the example of her patience under suffering, however impotent she may be in body, if there be a *mens sana*, is of inestimable benefit to her family. In a pecuniary sense, too, it may be of the greatest consequence to preserve even for a short time the life of a father. Moreover it appears to me that, as surgeons, we are bound in all cases to employ every means in our power to extend the thread of life to its greatest length. In some cases of carcinoma of the breast, in which it is very doubtful whether it is possible to remove the whole disease, that life will be prolonged by an operation may be very problematical; but in such cases as I have adduced—in fact, in malignant disease of a limb, the disease apparently extending no further, so that the whole of the morbid parts can be detached from the body I, never feel the slightest hesitation in recommending an operation. It has been mentioned, as a reason against operating in these cases, that there is danger to life in the operation; and no doubt in all operations there is some danger. But without an operation, a horrible death is certain. And is it wise, can it be right, to counsel our patients to pursue a course which will inevitably lead to an event which, under other circumstances, will be only contingent? Moreover, I should say, from the experience I have had in this large hospital, that patients seldom die from operations performed for the removal of malignant disease. Operations performed in many other cases are, I believe, much oftener fatal. I might perhaps assign reasons that would satisfactorily account for this, but my limits will not permit me to pursue this point any further at present.

Much may be done by medical treatment to arrest the progress, as well as to retard the recurrence, of malignant disease after an operation, but this part of the subject I must defer to a future lecture.

LECTURES ON PUBLIC HEALTH.

ADDRESSED TO THE STUDENTS OF THE THEOLOGICAL DEPARTMENT OF KING'S COLLEGE.

By WILLIAM A. GUY, M.B. Cantab.,

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CONTENTS.—Scurvy.—The Disease not peculiar to Seamen.—Formerly prevalent in barracks, prisons, besieged cities, convents, and monasteries.—Nature of the Disease; its Symptoms; its Causes.—Endemic among the Northern Nations, in Iceland, Greenland, Cronstadt, and the Northern parts of Russia.—Epidemic during the Sieges of Thorn, Breda, Rochelle, and Stetin; also in Brabant in 1556, and in Holland in 1662.—Has broken out more than once in the Penitentiary at Millbank, and was prevalent in the years 1846 and 1847.—The Scurvy among the Gold Miners of California.—Scurvy due to a Defective Diet.—Dr. Baly's experience at the Penitentiary.—The Potato an Anti-Scorbutic.—Errors of Diet in young Children.—Treatment of Infantile Fever.—The subject of Scurvy resumed; its Ravages in the Navy during the 18th Century.—Sanitary state of our Ships.—The Scurvy on board the Centurion.—Experience of Sir Richard Hawkins.—Mortality of Seamen in 1780.—Miscarriage of the Expeditions of Sir Francis Wheeler and Admiral Hosier in consequence of Disease.—Testimony of Sir Gilbert Blane as to the Seven Years' War and the American War.—Contrast offered by the Voyages of Cook and Parry.—Comparative Mortality of Sailors in the 18th and 19th Centuries.—The improvement in the health of the Navy a proof of the reality and importance of the Science of Hygiene.—Scurvy in the Army, in the Garrison of Oswego, and at Quebec.—Improvement in the Health of the Army.—Beneficial Effects of a change, in hot climates, from the plains to the hills, as recommended in Jamaica by Dr. Robert Jackson.

GENTLEMEN,—In to-day's lecture I commence my promised demonstration of the dependence of pestilential diseases on causes admitting of prevention, beginning with scurvy and other fatal diseases of seamen. I may premise, that none of the diseases which formerly scourged our fleets were peculiar to the sea. The fevers, the dysenteries, the foul ulcers, and even the scurvy itself, were all of common occurrence on land, among bodies of men similarly circumstanced in respect of food, clothing, cleanliness, and ventilation. The scurvy happened to be more peculiarly a disease of seamen, because, while they shared with soldiers and prisoners, and the inhabitants of besieged places, and the inmates of convents and monasteries, the evils of overcrowding, impure air, scanty supplies of water, and defective means of cleanliness, they surpassed all other bodies of men in the privations they had to undergo in respect of food. This, then, is my reason for speaking of the scurvy as mainly a disease of seamen. A word or two, in the next place, as to the nature of this disease. I dare say you are aware that the vulgar, whose vocabulary is generally very limited, are in the habit of applying the term "scurvy" to many diseases of the skin. Now, it happens that the best and most constant symptom of the true scurvy is a peculiar dark discoloration of the skin, in the form either of small round spots or of irregular blotches of larger size, on the extremities, or on the trunk of the body, or over the whole surface. These spots or blotches consist of dark blood poured out by the vessels underneath the skin. Sometimes this is the only outward sign of the disease; but in severe cases we have blood poured out in large quantities into the very flesh of the limbs, rendering them stiff and painful; and the vessels which in health keep the blood flowing within them, grow so weak that the slightest touch will break them and cause every appearance of a severe bruise. Then the gums, for the same reason, become dark, swollen, and spongy; the teeth get loose and fall out of their sockets, and the breath grows very offensive; and blood pours out from the mouth, nostrils, and eyes, and from every outlet of the body. At length the gums and the skin become the seats of foul ulcers, and old wounds break out afresh, and fractured bones, long since repaired, become disunited, and the poor sufferer, in full possession of consciousness, is reduced to such an extremity of weakness that he will faint on the slightest change of posture, and fall dead when carried on deck within sight of the land to which,

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with its fresh air, fresh meat, fresh fruits and vegetables, he had been looking forward as his certain and speedy cure.

I have said that this disease is by no means peculiar to sailors. There is a *land scurvy* as well as a *sea scurvy*, and there is no essential difference between them. Their symptoms are the same, and so are their causes, the principal cause—the *causa vera*—being a diet either deficient in quantity, or bad in quality, or defective in some important element, especially the vegetable acids. Hence it is a disease of the northern nations, whose diet is very apt to fall short in vegetable elements; and for this reason it is endemic in Iceland, Greenland, Cronstadt, and the northern parts of Russia. It also formerly existed in this country. Hence also it often raged in besieged towns, as in Thorn, Breda, Rochelle, and Stetin; and occasionally it has devastated whole kingdoms, as Brabant, in the year 1556, and Holland, in the year 1562. Again, it is a disease of forts and prisons; and, within a few years of this time, broke out more than once in a very severe form in the Penitentiary at Milbank. It has also manifested itself in very recent times, during seasons of scarcity. Thus scurvy, and all the diseases most nearly allied to it, were in great excess above the average rate in the disastrous years 1846 and 1847.

Scurvy has also been very prevalent among the gold miners of California, as appears from a very interesting account published by an American physician, Dr. Ober. He describes the emigrants upon the overland journeys, and at the mines, as living almost entirely upon fried bacon or fat pork and flour made into batter-cakes, and fried in the fat, which completely saturates it. This is washed down with copious libations of strong coffee, and large quantities of brandy or whiskey are taken in the intervals of the meals. Dr. Ober tells us that this has been the diet of thousands for months, under a scorching sun, when the temperature was over a hundred in the shade, the men being at the same time subjected to most intense labour.

"The consequence of this is, (I quote from Dr. Ober's account,) that after a time the strong man (generally the strongest, the heartiest feeder, and best worker in the company) suddenly finds himself destitute of strength, his limbs fail, he has palpitations of the heart on the slightest movement, his limbs contract and are troubled with cramps, his face, lips, and tongue are bloodless, his gums swell and bleed, black spots show themselves in various parts of the body, sometimes covering half the surface, and, if no amelioration takes place, the patient suddenly expires from some slight effort at motion. This is a picture of a severe case; but modifications of these symptoms manifest themselves in a large proportion of the people who have come in over the plains, or have spent much time at the mines; and, if they happen to contract any of the endemic diseases of the country, such as ague, diarrhœa, or dysentery, from this broken state of the system, no vital reactions take place, and physicians are astonished at the difficulty of getting a patient up when once down; and a dose of calomel or a blue pill I have seen many times induce a mortification of the face, and a dose of castor-oil taken for constipation produce a diarrhœa very difficult to cure."

The chief cause of the scurvy is, as I have told you, a diet defective in quality, or wanting in some essential element. A moist atmosphere would seem to come next in order; and filth, overcrowding, and foul air, indolence, listlessness, and despondency, great fatigue, and want of sleep, all promote it. But the supply of food is mainly in fault. It is not enough to have an abundance of fresh meat; it is not enough to have cleanliness and ventilation. If there is a deficient supply of vegetable food, and especially of that class of vegetables which contains a free acid, there is always a risk of scurvy. This was shown in a most convincing manner by Dr. Baly to have been the cause of the last outbreak of scurvy at the Penitentiary. There there was the most scrupulous attention to cleanliness and ventilation; but it happened that, from the dietary of the men afflicted with scurvy, the only vegetable in very general use which contains an acid principle—the potato—had been left out. This was restored, and the patients soon recovered. Now, very recent and very sad experience has convinced us that the potato is a vegetable that cannot be depended upon. It has become liable to disease to such an extent, that we may expect from time to time to have a scarcity of it, and a price so high as to shut it out from use in establishments where economy is an object of first importance, as in prisons and workhouses. In such a case, our first impulse would be to substitute rice, or oatmeal, or Indian corn-meal for it. But none of these would answer the purpose of a substitute. They are destitute of the vegetable acid of which I have spoken; and, in order to guard against the occurrence of the scurvy, we should have to add to our dietary some of the cheap green vegetables, such as turnip-tops, or some ascescent fruits, such as the orange or the apple, or to allow a certain quantity of lemon-juice.

Now, it is quite possible that those among you who may hereafter be appointed to country parishes will meet with opportunities among the poor, who, from want or ignorance, often live on very unwholesome food, of giving some useful dietetic advice; and such of you as may be called upon to officiate as guardians of the poor, or chaplains to prisons or workhouses, may be able to bring this knowledge to bear on a larger scale. Both the principle, that a vegetable acid is an essential ingredient of a wholesome diet, and the characteristic appearances on the skin and gums, which show that the principle has been overlooked, are very easily borne in mind. I therefore commend them to the safe keeping of your memories.

Now that I am on the subject of diet, I will give you another hint, which you may by-and-by have occasion to use with great advantage to the poor. Let me state, however, once for all, that, in any suggestions of this sort which I may have to offer, I suppose the clergyman to be officiating in some remote country village, (of which there are some thousands in England,) where there is no medical man within a moderate distance of him, where medical visits, even if required, are made at long and irregular intervals, and where, consequently, the poor are very apt to resort to the clergyman for advice, if not in difficult and dangerous cases, at least in the common run of maladies. In these country places, young children are very apt to suffer from errors of diet. It is, I believe, a general practice among the poor to feed very young children on the same food which they consume themselves, and very hard of digestion it often is. Very robust children thrive pretty well upon it; but the more delicate, especially if they happen to belong to large families, and to sleep several in the same room, when they once get a little out of health, go on from bad to worse, until their diet is set to rights, and a little simple medicine is given to them. Children so circumstanced waste away, their limbs shrink, and their stomachs swell; they lose their spirits, and sit moping about during the early part of the day, and at night grow flushed and feverish, and sleep badly. Sometimes they will go on in this way for weeks and months together, getting thinner and thinner, and worse and worse. If you make inquiries about their appetite, you will be told that it is either very bad, or very voracious, or very variable; and, if you further inquire as to the state of the bowels, you will be given to understand that they are either very confined, or that the child is teased and tormented with a constant diarrhœa, or that these two states alternate; perhaps you may find out that the child has worms. Now I will tell you in a few words how to treat these children. You must first of all confine them strictly to a diet of gruel made with milk, and give strict directions to the parents not to suffer any solid food of any kind whatever to pass their lips. Then, if the child happens to be suffering from diarrhœa or looseness of the bowels, it will very soon yield to this diet. You wait until the looseness has passed away, and then give every morning as much castor-oil as will move the bowels two or three times in the day—a tea-spoonful, or a dessert-spoonful, or a table-spoonful according to the age. If, when the child is first taken in hand, the bowels are costive, you begin at once with the castor-oil.

Now, I think that these directions are perfectly intelligible. By such treatment you can do no harm, and may do great good; and I need not tell you that there is no way in which you can so surely earn the gratitude of the poor as by taking an interest in the welfare of their children. I may also add, that, but for the interference of some kind superior, who is quick-sighted enough to discern the beginnings of this malady, to see that the child's health is failing, the parents themselves will often postpone calling in medical advice until the child is so seriously ill as to be with difficulty recovered.

But I must hasten to resume the thread of the argument which these practical suggestions have broken. In what remains of this lecture, I shall just have time for a rapid

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sketch of the improvements which have taken place in the health of the Navy, of which improvements the almost complete eradication of the scurvy is the most remarkable.

Some three-quarters of a century ago, a ship of war was a scene of the most disgraceful negligence. The diet consisted of very salt beef, biscuits mouldy with long-keeping, and puddings made of salt suet and flour. The water was so putrid, often so thick and green from decomposition and vegetable growth, and emitting so strongly the fetor of rotten eggs, as to disgust sight, smell, and taste. The ship was damp, filthy, and ill-ventilated, and the air of the wells so polluted, that fatal asphyxia was by no means of rare occurrence. Personal cleanliness was neglected; the clothing was insufficient; little effort was made to amuse the mind, and none to instruct it; the sailors' only luxury, an exorbitant allowance of spirituous liquors, at sea, as on land, the fruitful source of disease, misery, insubordination, and crime in all its shapes; add to all these privations and discomforts, a discipline not merely strict but severe, and punishment too often inflicted at the instigation of momentary passion, and we have a faithful picture of the naval service at the period to which I have referred. The consequences of such a state of things may be readily imagined. Disease alone was wanted to give the finishing touch to the picture, and convert this scene of hardship and deprivation into one of thrilling horror. Scurvy, putrid ulcer, malignant dysentery, and fever allied to that of gaols, (indeed, very frequently imported direct by discharged prisoners, as testified by Howard,) suddenly swept off the greater portions of many ships' crews, and well nigh depopulated whole fleets. Scurvy alone, without any aid from the other diseases which I have just specified, has more than once sufficed to place a well-manned vessel at the mercy of the winds and waves. Witness Lord Anson's ship, the Centurion, in 1742; "the crew so weakened by scurvy that only eight men were capable of doing duty, and these so reduced in health, that, had the ship been compelled to keep the sea a very few days longer, it would not have been possible to have brought her to an anchor at Juan Fernandez, and she must have gone adrift in the Pacific Ocean, the survivors perishing miserably, as once happened to a Spanish ship in the same Ocean, under the like circumstances. Or take the facts recorded in the table before you, which gives a summary of the deaths in Lord Anson's fleet in 1780:—

Name of Ship.	Number of Men.	Deaths in Ten Months.	Survivors.
Centurion . .	506	292	214
Tryal . . .	81	42	39
Gloucester . .	374	292	82

In large fleets the mortality was not less frightful than in single ships; for Sir Richard Hawkins, the great navigator, who lived in the time of Queen Elizabeth and her successor, relates that, in the course of twenty years, he "had known of 10,000 seamen" (a number short by only about 4000 of all who served in the fleet which conquered the Spanish Armada) "having perished by scurvy alone." This fearful mortality is not a story merely of the olden time, for, even so late as the year 1780, Sir Gilbert Blane found that, in a fleet manned with between 7000 and 8000 seamen, the mortality, in one year, had been one in every seven. Nor was it from any peculiarity in our own mode of manning, working, or provisioning our ships, that this destruction of life took place. The same diseases and the same high mortality occurred on board the vessels and fleets of foreign nations. Take, as a single instance, the testimony of a Portuguese historian, in reference to one of the exploring expeditions of that enterprising people. He tells us, in a strain of warrantable hyperbole, that, "if the dead who had been thrown overboard between the Coast of Guinea and the Cape of Good Hope, and between that Cape and Mozambique, could have had tomb-stones placed for them, each on the spot where he sank, the whole way would have appeared one continued cemetery."

The disastrous effects of this high rate of sickness and mortality in time of war may be readily imagined; but it may be well to give a few illustrations.

The expedition to the West Indies and North America, in the year 1693, consisting of two ships of the line and six frigates, under Sir Francis Wheeler, miscarried in the attack on Martinique, through the force being weakened by diseases; and, in his voyage to England, the ships' crews were so weakened by deaths from scurvy and fever, that there were hardly hands enough to bring the ships to anchor on their arrival.

Again, Admiral Hosier, who was employed with seven ships of the line in the year 1726, to protect the trade of the West Indies, buried his ships' companies twice over, and, in place of quelling and coercing the Spaniards, was set at defiance and insulted by them, and died of a broken heart.

To this same cause, excessive sickness and mortality occurring on board our ships of war, Sir Gilbert Blane, with great apparent justice, attributes the failure of our arms in no less than six general engagements which took place during the seven years' war, and the American war, every one of which engagements was a drawn battle. Is it not presumable that some, if not all of these, might have proved victories, had it not been for the deficiency of hands in consequence of mortality and disease?

Contrast with these facts, which I might easily swell into a volume, the voyages of Cook in 1772 and 1778, and those of our intrepid explorers of a north-west passage, in which sickness and mortality were, if I may be allowed the expression, held in check and kept at bay, by a just admixture of articles of diet, and a scrupulous attention to cleanliness and ventilation. Anson, in ten months after leaving England, lost 626 men out of 961, or about 2 in every 3. Captain Cook sailed round the world, and returned in three years with the loss of four men by accident, and one by disease. In Parry's three voyages of a year and a half and two years' duration, only seven men died out of 394. Or, if you prefer examples on a larger scale, take the Channel fleet in the year 1800, keeping the sea for four months without one vessel being in port, and bringing back, at the end of that time only sixteen subjects for the hospital; while only twenty years before the same fleet was so overrun with scurvy and fever as to be unable to keep the sea for ten weeks together. I will only add one more fact, or rather summary of facts, in illustration of this subject.

In the year 1779, out of nearly 30,000 men voted for the service of the Navy, nearly 1 in every 2 was sick in hospital, of whom 1 in 42 died; while (to pass over intermediate periods) in the year 1813, out of 140,000 men voted for the service of the Navy, little more than 1 in every 11 was admitted into hospital, of whom only 1 in 143 died.

In 1779 one sick in every two, and one death in every 42; in 1813 one sick in every 11, and one death in every 143! These figures merely compare the admissions and deaths in hospitals for the two periods. The comparison of the total annual mortality on board ship and in hospital taken together brings out results still more striking. Seventy years ago, the annual mortality in the navy was 123 per 1000; it is now somewhat under 14 in the 1000!

A more convincing proof of the efficacy of measures of prevention in preserving health and prolonging life can hardly be imagined or desired. The reality and importance of the science and art of hygiene could not receive a more conclusive demonstration. If it be true, as it undoubtedly is, that these improvements in the health of our seamen, due to a strict attention to diet, water supply, clothing, cleanliness, and ventilation, aided in some degree by superior medical treatment, an improved discipline, a less capricious exercise of authority, and some praiseworthy efforts to amuse and instruct the mind of the sailor,—if it be true, I say, that these improvements in the health of our seamen have alone sufficed to double the effective force of our Navy, to make one ship, for all purposes of navigation and warfare, equivalent to two of equal force, to enable a vessel to keep the sea for twice or thrice the time which was possible some 60 or 70 years ago; if it be true that at the old rate of mortality, all Europe could not have furnished the seamen necessary for our defence and safety during the great revolutionary war, then is it a mere waste of words to prove that public health is a great national blessing, the neglect of it a calamity and a curse, and the science and art of hygiene, which aims at its preservation and improvement, most worthy of the attention of all who enjoy opportunities of carrying its principles into practice.

At any rate, I trust that you will be ready to agree with me, that the wonderful improvements which have taken place, in the last three quarters of a century, in the health of our seamen, leading to the disappearance of the scurvy, and of the other loathsome diseases which I have mentioned as

having been associated with it, furnish a most convincing demonstration of the great truth for which I am contending, that some of the most severe diseases which have afflicted mankind have been in a great degree dependent on causes admitting of prevention or removal.

I am unwilling to quit the subject of scurvy without reminding you again of the great public services rendered by Captain Cook, in demonstrating the possibility of preventing scurvy and preserving the health of seamen by sedulous attention to the simple and obvious conditions of health. And I am equally unwilling to forego the opportunity which the mention of his name affords of adding another to the list of those philanthropists who have shown, by the whole tenor of their lives, that, if their humanity was not the direct offspring of religious principle, it was at least most closely associated with it. I shall have, in a future lecture, to speak of Howard as a martyr to the cause of the prisoner. It is an interesting coincidence, that Captain Cook lost his valuable life by practising in his own person the great lesson of humanity to the savage, which he had never failed to inculcate upon others.

In pursuance of the plan which I have proposed to myself, of proving, by means of leading facts and striking instances in the sanitary history of this country, the vital truth, on the ready acceptance and full appreciation of which by all classes of persons, the future well-being of our great and growing population must in no small degree depend, that some of the most fatal diseases which have afflicted us have been occasioned or promoted by causes admitting of removal, I had intended proceeding at once to the two subjects of small-pox and gaol fever.

But, before I enter upon these subjects, it may be well to detain you for a few minutes, while I follow up what I have been saying on scurvy and the diseases of seamen, by a brief reference to what has been done to improve the health of the other branch of the public service. I shall have occasion, in a future lecture, to prove to you that in time of war, the deaths from wounds received in battle bear but a small proportion to the deaths from disease. But, even in times of peace, there are many circumstances in the life of a soldier which expose him to a mortality exceeding that of the civil population of the same age. Among these circumstances, I may specify overcrowding in barracks, intemperance and dissipation, short or defective supplies of provisions, encampment upon undrained lands, exposure to the inclemency of the weather, and service in unhealthy climates. Hence a peculiar liability to agues and fevers, to diarrhœa, dysentery, cholera, and consumption. I shall not detain you at present by entering into any details respecting these complaints; but I will take this opportunity of enforcing what I have just stated respecting scurvy, by alluding to one or two instances in which that disease has committed sad ravages among our troops.

Lind tells us that, during the winter of 1756, the English garrison at Oswego was reduced by the scurvy to so great distress, that among 700 men they often could not muster 80 fit for duty—a number scarcely sufficient to protect them from the incursions of the Indians. Out of the 700 men, no less than 200 died of the disease.

Again, in the winter of 1759, the scurvy broke out among the garrison of Quebec. Speaking of this calamity, General Murray, the Commander-in-Chief, says:—"The excessive coldness of the climate, and constant living on salt provisions, without any vegetables, introduced the scurvy among the troops, which, getting the better of every precaution of the officer, and every remedy of the surgeon, became as universal as it was inveterate; insomuch that, before the end of April, a thousand were dead, and above two thousand of what remained totally unfit for any service."

So much regarding the scurvy among our troops.

If, from the mortality occasioned among our troops by this one disease, we turn to the mortality from all causes at different periods of time, we shall obtain conclusive evidence of the efficacy of preventive measures in preserving health and saving life. If we compare the average mortality of our troops in healthy climates, previous to the year 1836, with the average mortality which took place ten years later, we find that in the first period we lost nearly 22 per 1000 of mean strength, in the latter period only 14 in the 1000. If, again, we take the troops serving in tropical climates, we find the mortality reduced, in the same period of time, from 84 per 1000 to 42 per 1000, or exactly one half. A great part of this marked reduction was doubtless attributable to the very simple expedient of shifting the troops, where practicable, from the plains to the mountains. This course was recommended by Dr. Robert Jackson, in the case of the troops serving in Jamaica, and the consequence of acting on his wise suggestion was, that the annual mortality which, in the low grounds, was 120 per 1000, fell, on the hills, to 20 per 1000, being an annual saving of 100 lives in every 1000!

Thus, then, from the records of both branches of the public service, do we derive undoubted evidence of the efficacy of the simplest measures of prevention, in preserving health and saving life.

This fact of the greater salubrity of high grounds in hot climates is one which may be acted upon with advantage by the soldiers in a holier warfare—I mean our missionaries. Missionary stations, like barracks, should be established on hills, and not in the plains. The subject of my next lecture will be small-pox and vaccination.

ORIGINAL COMMUNICATIONS.

ON THE ADVANTAGES OF AN ELASTIC CONVOLUTED SPIRAL BANDAGE IN VARICOSE VEINS AND ULCERS OF THE LEGS.

By JAMES STARTIN, Esq.

Much has been said of late, in your own and contemporary pages, on the subject of the class of maladies heading this communication; yet I believe it is very generally allowed, by surgeons of every grade, that Thompson's remark is as truthful and apposite as when it was pronounced, viz., that "the varicose is a very obstinate form of ulcer, and baffles often the best directed efforts of our art," ("Lectures on Inflammation," p. 439;) consequently, I shall make no apology to your readers for introducing a plan to their notice which I trust they will find as efficacious in their hands as it has proved in my own; and, in earnestly soliciting them to institute a few trials of it, I will guarantee that their labour will be inconsiderable, the expense trifling, and the advantages important.

For some years, many hundred examples of varicose ulcers have annually passed under my observation, as surgeon to the Hospital for Diseases of the Skin, and the treatment generally adopted has been far from unsuccessful; yet the plan I am at present advocating, which has been in public practice for many months past, and in private for a longer period, possesses some advantages which are not so readily attained by the method in former and more customary use, which was that recommended many years ago by Wateley, ("Practical Observations on Ulcers on the Legs, 1797,") although somewhat modified by the bandage employed, being made of "Glover's patent twilled flannel," and constitutional treatment being superadded to the local means recommended by that author. In the following brief remarks on this novel surgical appliance, it is unnecessary to insist upon the causes, or describe a varicose ulcer; suffice it, therefore, to say, that an inability to support the column of blood in the superficial veins, owing to the faulty action or destruction of their valves, constitutes the chief cause; and it is to supply this deficiency by the artificial substitute of a convoluted spiral strip of vulcanized Indian-rubber, which comprises the plan I am desirous of testing by professional experience and opinion. It may be well, however, to premise, that this treatment is specially advocated for those varicose ulcers only which are not complicated with extensive erythema, eczema, impetigo, psoriasis, or other disease of the skin of the leg, and that it will probably be found most useful in that varicose sore, so well characterised by Sir E. Home as "a species of ulcer which is seldom very deep; when it spreads, it is generally along the surface; its shape is commonly oval, the ends of the oval pointing vertically; the edges of the surrounding skin are commonly neither thick nor irregular, but are imperceptibly lost in the ulcer," &c.—(Home on Ulcers, p. 275.) Yet it may be borne in mind, that, providing varicose veins are present, and other disease of the skin of the leg is not present, beyond the ordinary œdema or erythema surrounding nearly

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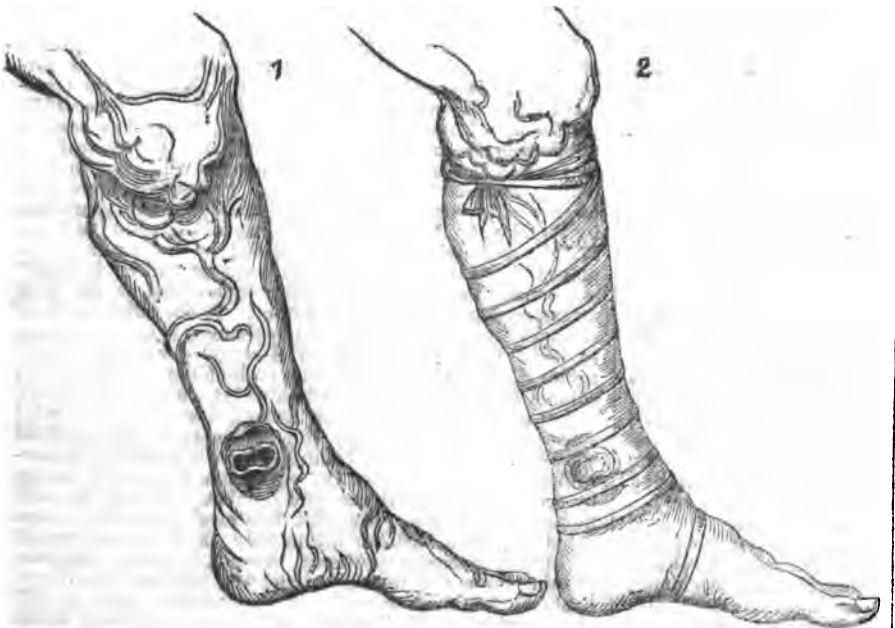
every ulcer, that the convoluted spiral bandage will exert a beneficial effect, and be found applicable; and this is the case whether the ulcer be round, oval, or irregular, deep or superficial, irritable or indolent, cicatrizing or sloughing, single or several, painful or otherwise; for this bandage interferes with no dressings or manipulations, nor does it conceal the wound, or hinder the application of any other roller, poultice, or remedy,—its sole office being to supply artificially the place and functions of the imperfect or deficient valves, and thus divide the column of blood as obtains in the normal condition of the limb; and I believe it will be found to accomplish this most desirable end most effectually, whilst, at the same time, it constitutes a cool and agreeable support for the leg, and removes that undue tension of the skin so commonly found complicated with varicose ulcers, by furnishing numerous *points d'appui*, and tending thus to prevent or avert those specific diseases of this membrane before referred to, which are produced, or materially augmented by a tense state of its parts.

From what has now been stated, it will be understood that the convoluted spiral bandage may be combined with any other treatment, local or general, furnished by experience, or deemed advisable in the cases wherein the apparatus is to be applied; so that it may be regarded as an adjuvant rather than as the *sine qua non* of the treatment; and, when employed with this view, I have much confidence that its value will be generally allowed and appreciated. Before proceeding to describe it, however, it may be well to mention that, during its employment, lotions containing a little purified glycerine (℥ss. ad ℥viiss.) to prevent their drying, and slightly medicated with nitric acid, yellow or black wash, have in my experience proved more useful and suitable applications than plasters or ointments; and I prefer the following method of using these liquids:—A small piece of *bibulous paper torn from the sheet into the size and form of the ulcer* (the object of which is to furnish a soft, smooth surface, and to prevent the dressing sticking to the sore) is first to be wetted with the lotion, and then placed upon the ulcer so as barely to cover its edges; over this, a pledget of lint or linen wet in the same solution is next to be laid, and this should be large enough to cover every portion of the discoloured or inflamed skin surrounding the wound. This dressing, when thus applied, may or may not, at the option of the operator, be secured with a turn or two of the common calico roller, wet in the same liquid; and over all is to be placed the convoluted spiral bandage, in the manner I will detail after having briefly described its nature.

This bandage may be manufactured of two or more qualities, according to the class of patient on whom it is to be applied, or the cost to be incurred; the best kind for ordinary use consists of half or three-quarter inch wide elastic band or webbing of vulcanised Indian-rubber covered with silk or cotton, two yards and a half long, or four or more yards in length, when the external saphena vein is to be supported to its entrance into the falciform opening of the fascia lata. At one end of this narrow band, a piece of strong silk binding, six or seven inches long, the ends of which are to be sewn together, is fixed obliquely, so as to form a sort of loop or stirrup into which the foot is to be placed; the other end of the band is sewn at right angles into the middle of a yard or more of similar binding, which serves, after the fashion of a garter, to fix the bandage below or above the knee or round the pelvis when the spiral turns are completed.

This simple arrangement constitutes the entire apparatus; the webbing or band of which it is composed costs from 1s. to 4d. per yard, according to whether the vulcanised thread constituting its foundation be covered with silk or cotton, or is finely or coarsely manufactured; but another still cheaper and equally efficient method of constructing these bandages exists, which is also the one employed in my public practice; this is, to take a piece of (No. 36) patent vulcanised Indian-rubber sheeting, of any width, and two and a half yards long, on which parallel lines half or three-quarters of an inch apart are to be marked, so that it may be accurately cut into strips of this width; the incisions should be commenced on these lines alternately, at a distance of three inches from each end of the piece, the object of which is to leave a portion of double the breadth at the end of each bandage, so as to form a loop or stirrup for the foot, as before described. This wider portion of the bandage being properly fashioned, and an opening made in it, to fit the instep, either with scissors or a stamp made for the purpose, the apparatus only requires, to render it complete, a yard or so of cotton binding of the same colour as the vulcanised sheeting to be fixed at the opposite end of the band, as mentioned when the webbing is employed. The cost for each bandage thus constructed amounts only to sixpence or eightpence.



This sketch was taken from the Case No. 11, in the annexed tabular statement of Mr. Tyler. The patient's knees presented no obstacle to the descent of the bandage, consequently it could not be fixed above them, as should have been the case, without the risk of slipping down. It would therefore have been better to have employed a longer bandage carried up the thigh and fastened round the pelvis. Moistening the elastic band with glycerine and chalk will also prevent its slipping, as will a turn or two of the common calico bandage applied obliquely over it.

The method of applying the convoluted spiral bandage, and its effects upon the varicose veins and the sore, will be best understood by reference to the subjoined drawings, by my friend Staff-Surgeon Pilleau, made from a patient who had been under treatment with it for some few weeks. The case has been chosen, not so much to manifest the rapid improvement of an ulcer of many years duration and great extent, as to demonstrate the mode in which these sores heal, and the marked effect of the bandage in almost obliterating the appearance of the large varicose veins over which it is applied, and which has been represented without exaggeration or diminution.

From the sketch it will be perceived, that the loop of the bandage is first placed over the instep, so as to bring the commencement of the elastic band immediately under the outer ankle, which situation is to be preferred, although it can be applied under the inner ankle, should an ulcer or other peculiarity in the case require it. In the Plate No. 1, the ulcer represented in the lower third of the leg was originally of the usual oval shape, as will be seen from the part lightly shaded; it was then fully double its present size, and the ends of the oval pointed vertically. These are now transverse, showing the usual effect of this bandage, but owing to the patient's neglect, and several days' standing at the

"wash tub," the edges of the sore had become a little elevated, and the healing process had been slightly interrupted. On referring to Plate No. 2, it will be seen that two turns of the spiral bandage are made before reaching the sore, the upper turn passing close beneath its lower border, whilst the next or third turn is taken immediately above it; the bandage being then obliquely continued at equal intervals of three-quarters of an inch, to an inch or more, until it reaches the knee, where it is fixed by a turn or two of the binding acting as a garter.

This is the general arrangement which I have found it best to follow, as the long column of blood in the external enlarged veins by this means is divided into eight or more short columns, and, consequently, the capillaries of the ulcer are relieved to the extent of this division of the pressure upon them, while much of the tension is taken off the entire skin of the leg, by the blood being caused to pass inwards by the deeper veins, and collaterally by the smaller venous branches. From such a disposition of this simple contrivance, the parts concerned in the reparation of the ulcer are left in comparatively a normal state, and it is surprising how quickly reparation commences when no constitutional cause is present to interfere with the process. The mode of cicatrizing in sores thus circumstanced, is, however, somewhat peculiar, and in deep ulcers much resembles what is seen in the reparation of bone, *i. e.*, the base of the ulcer often heals, leaving an indented cicatrix the exact form of the sore remaining, as it were, impressed into the surrounding skin, as witnessed in plate (Fig. 1,) although it will be observed, that the lapse of a few months commonly serves to obliterate this appearance.

I trust, from the details now given, that most of the advantages of the proposed plan will become apparent; but there are a few not quite so obvious, which may deserve a passing remark, as they more particularly concern the poorer class of patients—this being more especially the poor man's bandage. The first is, that rest is unnecessary during the treatment, and the extreme ease and readiness with which the bandage may be put on the leg, and the pertinacity with which it retains its position under every motion of the limb, render it peculiarly applicable to this class of patients. The next is the facility that exists of applying poultices or the ordinary dressings to the wound, without removing the bandage, all that is necessary in the former case being to put the poultice over the bandage, whilst in the latter, the lower spiral turn of the band next the ulcer, may be drawn from the leg, and the dressing put upon the wound, and then fixed in its position by letting the elastic band resume its place, when the same process may be repeated with the turn of the bandage immediately above the ulcer, by which means the ordinary tedious process of dressing is reduced to a minute's duration, and the varicose veins have the uninterrupted support of the bandage for any time that may be desired; ablutions, baths, &c., may also be used without disturbing, and with but very little hindrance from the bandage.

I have found patients express themselves very generally in favour of the simple expedient I have thus attempted to describe, nearly all have lauded its coolness, and the support it gives to the limb, whilst some have been enthusiastic in its praise, as will be verified by my colleague Mr. M'Whinnie, or by any of the gentlemen attending the practice at the Hospital for Diseases of the Skin, amongst whom Henry Chapman, Esq., (well known by his standard works on "Surgical Apparatus," and on "Treatment of Ulcers,") will, I am sure, bear testimony; as will also J. S. Tylor Esq., long a diligent student of cutaneous disease, and who has kindly furnished the annexed table of twenty-four recent cases in which the bandage has been used, the results being attached to each case. I shall, therefore, no longer trespass on your pages, than to cite two instances taken at random from my case-book, as they briefly show the little care and management necessary for a satisfactory result under the use of this remedy.

Esther Pratt, aged 50, residing in King's-road, Chelsea, a married woman, having borne seven children, applied Sept. 11, 1850, as an out patient (No. 28,341) to the Hospital for Diseases of the Skin. She stated that she had suffered from enlarged veins of the left leg for upwards of twenty years, and that the limb had often been in a state of ulceration for many months at a time, but had healed again under the treatment obtained from hospitals and dispensaries; for the past four or five years, however, the sore had remained open, and had resisted every means she had tried for its cure, and that latterly it had spread to the size of a large table-spoon, was very painful, particularly at night, and subject to burst out bleeding; from which cause she on one occasion nearly lost her life. On examination, this ulcer was found to be situated in the middle third of the inside of the leg, very nearly in the course of the internal saphena vein. It was rather larger than a modern table-spoon, irregularly oval in shape, the long axis of the oval being parallel to the leg; it was not deep, nor were the edges indurated. A patch of erythematous inflammation extended to about an inch and a half around the sore, which was not otherwise than healthy in appearance, a circumstance owing probably to its having been poulticed and rested for a week or ten days previous to the patient's application to the hospital. It was very sore, and the mass of enlarged veins, extending from the external saphena all over the limb, participated in this soreness, which was augmented in bed, on approaching the fire, on being handled or pressed upon, or on assuming the upright position. The following means were advised. The wound to be dressed every morning, with a compress of linen three or four times doubled, wet with very weak black-wash, containing glycerine, a piece of bibulous paper, imbued with the same lotion, being first placed next the ulcer, and directions given that the pledget of linen was to be moistened with this liquid twice or thrice a day, without removing the dressings from the leg or disturbing the wound. The bowels were to be kept soluble, and the inflammatory action in the leg moderated by a morning and evening draught of sulphate and carbonate of magnesia, containing ten drops of wine of colchicum in each dose; and, until the pain and inflammation had subsided, the patient was directed to bandage the limb with a common calico roller, previously dipped into hot water, and, at the close of the week, if matters progressed satisfactorily, she was told to renew her visit, to have the spiral bandage applied. In about ten days she called again, and as the ulcer was in an entirely favourable state, it was dressed, as before described, with the glycerine lotion, &c.; the pledget of linen being secured by a turn or two of wetted calico roller. The spiral bandage was then put on over all, from the instep to above the knee, in the manner already detailed, with directions that it should remain as long as it retained its position; that the dressing was to be renewed every other morning, without taking off the bandage, but that the pledget of linen, &c., was to be wet occasionally with the lotion, or warm water, if it got too dry, or produced irritation. Should the spiral bandage cause itching or uneasiness in any other part of the limb, it was to be sponged over with vinegar and water, or thin gruel acidulated with vinegar; and in the event of anything like an excoriation of the skin, a piece of wet blotting-paper was to be interposed, where required. This patient did not attend more than four times, and no change was made in the treatment thus advised, save to lessen the dose and frequency of taking the aperient, and to abstain from dressing the ulcer more frequently than absolutely necessary. By the middle of December the sore had entirely healed, and on the 18th she was dismissed cured, with instructions to continue the use of the spiral bandage as long as she found comfort or support from its employment.

The Rev. A. C., a clergyman from Devonshire, who had for many years suffered from varicose veins of both legs, which had baffled his professional advisers, both here and on the Continent, where he had resided occasionally for long periods, applied to me about six weeks ago, complaining of eczema in both limbs, which not only prevented his taking exercise, of which he was very fond, but was the source of much annoyance and pain to him, and obliged him to discontinue the "laced stockings," which had hitherto been his only source of relief. By attention to his general health, combined with a slight course of mercurial alteratives and hot wet bandages to the legs, previously anointed with an astringent ointment, the eczema yielded in about three weeks, when I advised him to throw aside his laced stockings, and to make trial of the elastic convoluted spiral bandages, to be applied from the instep to above the knee, over the wetted calico roller, to which he consented, and I saw him a week afterwards, when he said, (my friend being an Irishman,) "By my faith, I find these artificial valves of yours the coolest and most convanient my legs have known for many a day—I can walk as well as ever I could in my life."

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Name and Address of Patient.	Date of Application of the Spiral Elastic Bandage.	Description and Situation of Ulcer, &c.	Duration of Disease.	Duration under Spiral Bandage before Cured.	Results.
1. Eliza Sampson, Wharf-rise, Kingsland-road.	Dec. 16, 1850.	Varicose Veins of Right Leg, Large Oval Ulcer above Inner Ankle.	Ulcer breaking out at intervals for six years.	.....	Progressing favourably.
2. Susan Harper, æt. 43, 5, Salisbury-court, Fleet-st.	Dec. 16, 1850.	Varicose Veins of Right Leg, Foul Ulcer, size of a shilling, over the Tibia in the centre of the Leg. Varicose Veins for many years.	Ulcer 6 months.	6 weeks.	Ulcer cured, Jan. 27, 1851.
3. Joseph Selvey, æt. 41, 14, Hoxton-market.	Dec. 16, 1850.	Immense Varicose Veins of the Right Leg and Thigh, with Two large Ulcers situated halfway up the Leg on the inner side.	Varicose Veins 16 years, Ulcers 2 years.	6 weeks.	Much relieved—Ulcers healed, Jan. 27, 1851.
4. Mary Hickman, æt. 47, 14, Red Lion-square.	Dec. 18, 1850.	Varicose Veins of the Right Leg, with large Ulcer over Inner Ankle.	Ulcer 6 weeks.	5½ weeks.	Ulcer cured, Jan. 24, 1851.
5. Maria Hatton, æt. 39, 2, Virginia-row, Bethnal-green.	Dec. 18, 1850.	Varicose Veins of Left Leg—Foul Ulcer, size of half-a-crown, just behind and above the Inner Ankle.	Ulcer 2 years.	.....	Progressing favourably.
6. Elisabeth Seil, æt. 62, 112, Drury-lane.	Dec. 20, 1850.	Varicose Veins to some extent—large Ulcer, size of two half-crowns, over the Inner Ankle of the Right Leg. Tried all methods of cure.	Ulcer 18 years.	.....	Idem.
7. Anne Garrett, æt. 24, 109, Great Suffolk-street, Boro.	Dec. 20, 1850.	Varicose Veins of Right Leg, ditto of Left Leg, with three Ulcers on the inner side, about middle of leg, largest the size of a shilling.	Ulcers at intervals 2 years.	.....	Not much relief—bandage badly applied by the patient.
8. Jane Cuffley, address not given, can be ascertained.	Jan. 6, 1851.	Varicose Veins, small Ulcer of the Right Leg, Varicose Veins several years.	Ulcer 6 weeks.	12 days.	Ulcer healed, Jan. 18, 1851.
9. Jane Brake, æt. 45, 5, Berkeley-street, Clerkenwell.	Jan. 6, 1851.	Varicose Veins of both Legs, Ulcer on each Leg over Ankles about the size of a shilling, Ulcer of Left Leg healed seven years since, and broke out again.	Ulcer of Left Leg 14 years' duration, other Ulcer 12 years.	2 weeks.	Ulcer of Right Leg healed, Jan. 30, 1851.
10. Sam. Chappell, æt. 61, 3, Tun-court, Redcross-st., Cripplegate.	Jan. 6, 1851.	Varicose Veins—Ulcer, size of shilling, over Inner Ankle of the Left Leg.	Ulcer 9 months.	6 weeks.	Healed Feb. 17, 1851.
11. Elizabeth Shiel, æt. 60, 14, Well's-pl., South-st., Camberwell.	Jan. 6, 1851.	Varicose Veins of Left Leg, Ulcer, size of half-a-crown, over Inner Ankle.	Ulcers 10 years.	.....	Varicose Veins so large, that Mr. Startin had a drawing made of the case—(see plate.)
12. Elizabeth Cook, æt. 28, 10, George-gardens, Bethnal-green-rd.	Jan. 8, 1851.	Large Varicose Ulcer over Inner Ankle of the Left Leg.	4 weeks.	.....	Relieved—bandage to be discontinued for a short time, as an erythematous state of the skin had come on; Ulcer better, Feb. 27, 1851.
13. Sarah Bullpin, æt. 60, 73, Bermondsey-st., Borough.	Jan. 13, 1851.	No Ulcers at the present time, though she had often had them—large Varicose Veins of the Right Leg.	Varicose Veins 25 or 30 years.	.....	Relieved — finds much support from the bandage.
14. Jemima Boyton, 5, Southampton-st., Camberwell.	Jan. 13, 1851.	Varicose Veins of both Legs, Ulcers over Inner Ankles of both Legs; Right, size of half-a-crown.	Ulcers 5 years.	.....	Relieved in both legs from winding two spiral bandages.
15. Emily Grimes, æt. 36, 17, Great Tower-street, City.	Jan. 15, 1851.	Varicose Veins of Left Leg, with Varicose Ulcer, size of half-a-crown, middle of inner side.	Varicose Veins 20 years, Ulcer 1 month.	.....	Progressing favourably.
16. Mary Skinner, æt. 61, 6, Neckinger-road, Bermondsey.	Jan. 15, 1851.	Varicose Veins of Right Leg, Ulcer over Outer Ankle size of a shilling.	Ulcer 12 months.	.....	Nearly well.
17. Wm. Woodward, æt. 36, 6, John-street, Commercial-road.	Jan. 17, 1851.	No Ulcers,—Varicose Veins of the Right Leg, accompanied with much Inflammation of the Skin in various places.	Varicose Veins 12 years.	.....	Inflammation of skin subsided; leg greatly relieved, March 10, 1851. Finds bandage give support, cool and comfortable.
18. George Margetts, 12, Little Warner-st., Clerkenwell.	Jan. 17, 1851.	Varicose Veins of Right Leg, a large Ulcer healed some time since.	Varicose Veins 7 years.	.....	Much relief.
19. Francis Ludlow, 17, Old Change, Cheapside.	Jan. 17, 1851.	Varicose Veins of the Leg, small Varicose Ulcer, the size of a sixpenny piece, beneath the Inner Ankle, Varicose Veins six years.	Ulcer 3 weeks.	10 days.	Ulcer healed, Jan. 27, 1851.
20. Chas. Hammersley, æt. 17, 19, Half-Moon-crescent, White-conduit-fields.	Jan. 20, 1851.	Small Varicose Veins of Left Leg, Ulcer, size of shilling, above Left Inner Ankle.	Ulcer 5 weeks.	1 week.	Cured, Jan. 27, 1851.
21. Lucy Wood, 1, Farnham-place, Gravel-lane.	Jan. 20, 1851.	Varicose Veins of the Right Leg, of large size, with Ulcer, size of half-a-crown, over the Outer Ankle.	Varicose Veins and Ulcer at intervals for 20 years.	.....	Likes the bandage.
22. Jane Harris, æt. 70, 15, Leader-street, Chelsea.	Jan. 20, 1851.	Varicose Veins of Right Leg, with Ulcer, size of a shilling, above the Inner Ankle.	Ulcer 15 years.	.....	Idem.
23. Mary Adshead, æt. 40, 29, Maltby-st., Bermondsey New-town.	Jan. 22, 1851.	Varicose Veins of Right Leg, Ulcer size of shilling on dorsum of the right foot towards the Outer Ankle.	Varicose Veins 4 years, Ulcer 3 months.	2 weeks.	Ulcer healed Feb. 5, 1851; Varicose Veins much better.
24. Sarah Flowers, æt. 30, 9 Londenhall-st.	Jan. 24, 1851.	Varicose Veins of Right Leg and Thigh, Two Ulcers, one size of a shilling, two inches above the Inner Ankle, the other smaller, below and in front of ditto.	Varicose Veins 1 year, Ulcers about 6 months.	Large Ulcer 2 weeks, smaller do. 5 weeks.	Large Ulcer healed, Feb. 7, 1851; smaller ditto healed, Feb. 28, 1851.

The above tabular report was kindly furnished me by Mr. Tylor, who writes as follows:—

"37, Charterhouse-square, March 10, 1851.

"My dear Friend,—Enclosed are the details of twenty-four cases of varicose veins and ulcers of the lower extremity, taken at the Hospital for Diseases of the Skin. They have all been treated with thy 'Elastic Convoluted Spiral Bandage,' and nine of them have been cured since the 16th of Decem-

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ber last, when this plan of treatment was frequently adopted there. It will be seen that one out of this number has become healed after having been only a week under treatment, and another within a period of ten days.

"I intend following out the remaining cases, and have no doubt they will present equally satisfactory results. It is true that most of these patients have been placed under a course of medicine, and all have used the glycerine lotion, but many of them had previously been in various hospitals in London, and had been subjected to both local and general treatment with but little advantage; so that, as far as can be judged from present results, I think this plan of treatment may fairly be considered to offer greater prospect of success in the cure of this troublesome class of complaints than any which has hitherto been tried.

"I remain, sincerely and respectfully thine,

"Jas. Startin, Esq." "Joseph S. Tylor.

It must be borne in mind, that every case included in this Table was selected for its supposed fitness for the bandage, and also that recourse was had to constitutional treatment, light diet and abstinence from malt liquors being enjoined. The treatment was not the same in every case, and consisted of chalybeates, mercurial alteratives, colchicum, opium, and aperients, according to the formulæ in the Pharmacopœia of the Hospital, lately published. It was sometimes found necessary to allow the bandage to be removed every day, and a stocking, fitting tightly to the leg, was commonly advised to be worn to retain the bandage in its position; and in one instance, as it irritated the skin of the leg, the bandage was applied over the stocking.

4, Savile-row.

COMMENTARIES
ON
CONVULSIVE DISEASES.

By CHARLES BLAND RADCLIFFE, M.B.;
Licentiate of the Royal College of Physicians.

I.—OF THE CONVULSIVE TEMPERAMENT.

1. We may learn our first lesson upon this subject by noticing the peculiarities of persons who are liable to tremble when exposed to cold, or when startled or distressed in any manner; for this involuntary movement, however insignificant in itself, blends, through many insensible gradations, into the more serious forms of convulsion. If, then, we institute the necessary examination, we find that all agree in being more weakly and delicate than ordinary. They are women, rather than men, or men who approach most nearly to the feminine habit; and not the strong and stalwart of either sex.

A parallel lesson is to be found in the study of those movements of elderly people, which vary from mere tottering tremulousness to that severer agitation, to which the name of "shaking palsy" is given. Here the convulsive symptoms are more decided, and the indications of defective vital tone proportionately confirmed. Thus, the head is now bare, or the few locks which remain are soft and snowy,—the countenance without fire,—the hand pale and cold,—the limbs weak and wasted,—the pulse without quickness and vigour,—the teeth wanting,—while all youthful impulses and aspirations have departed. Everything, in fact, indicates debility and decline of the most decided character.

In persons subject to these tremblings or shakings, both young and old, there is also a disposition to another convulsive symptom, in which the contraction is continuous. Cramp of the muscles of the leg occurs frequently at night, especially when the bed is unprovided with sufficient coverings, and when, therefore, the sleeper may be supposed to be chilled by the exposure. There is also another and more serious form of cramp, which occasionally complicates the troubles of old age, and is indicative of softening of the brain,—indicative, that is to say, of an exaggeration of that natural atrophy of this organ which marks advanced life.

And further, these preliminary conjectures respecting the characteristics of the convulsive temperament receive additional confirmation from the fact, that convulsions frequently attend upon dissolution, and that death itself is invariably marked by rigidity of the entire body. As seen in these several instances, therefore, it would seem as if the muscular contraction became more decided in proportion to the want of energy in the system; for we see tremulousness in connexion with less marked degrees of feebleness, convulsion with mortal exhaustion, and tetanoid rigidity with complete extinction of life; and hence we should conjecture that the temperament under consideration will be found to be characterised by want of vital tone. Whether this be the case or not, however, we proceed to ascertain by an examination of other questions.

2. We secure a more distinct view of the features of the convulsive temperament in persons liable to hysteria and chorea, and, with proper care, it is not difficult to trace the likeness which is here presented.

In the multiplicity of symptoms belonging to *hysteria*, however, our first care must be to avoid confounding the voluntary or half-voluntary acts connected with violent passion or emotion, with the involuntary or nearly involuntary convulsions in which the patient falls to the ground, as in epilepsy. These opposite conditions, it is true, are often exhibited at different times in the same person; but, as we shall see in the sequel, there is as great a difference between the state of the system at these times, as between a person flushed and heated with anger and one about to faint away from fear.

Notwithstanding these differences, however, there are certain common features in the hysteric habit. The fact that it belongs to woman, is a primary argument that it is marked by a certain delicacy or debility when we compare it with a masculine standard. It is found, also, (and upon this all medical authorities are agreed,) that hysterical women are of a more weakly constitution, less adapted for fatiguing exercises, and recovering with greater difficulty when exhausted, than ordinary women, while the circulation is often so languid and defective, that the limbs are icy cold in the height of summer.

Nor does there appear to be any reason to suppose that the convulsion in this case is dependent upon functional activity in any organ. Local pain is no such proof; for this we know to be more frequently a sign of want of energy than the reverse, and to be relieved by remedies of a tonic and stimulating character. Excessive uterine discharge, also, is no proof of active disturbance; for most generally, if there is any difference between the state of the organ chiefly concerned and the rest of the system, it is one marked by deficiency of tone, and not by excess.

It is not to be doubted that there are times in the history of every hysterical person when there is a disposition to feverish activity, and that, in some instances, the habit is constantly more vigorous than that we have described; but, at these times and in these persons, *excitement*, and not convulsion, is the dominant symptom,—as we shall see in the sequel, when we come to speak of epilepsy, and of other states attended with convulsive symptoms.

Passing to *chorea*, we notice a similar order of facts to those we have just considered. It is still found that women are more frequently the subjects of this malady than men; and the women whose parents were infirm or aged, or who themselves had been enfeebled by illness or injudicious habits more than the stronger of the same sex. In convalescence from severe and exhausting diseases, choraic symptoms (which in this case may be considered as intimately allied to the subsultus of typhoid depression) are very common. There are few cases, also, in which we do not find unmistakable signs of anæmia and chlorosis. During life the countenance is pale, and the lips and tongue blanched; and after death the muscles, both voluntary and involuntary, are found shrunken and flaccid, and in colour more like those belonging to white-fleshed animals than anything else; or, if there is more blood in the system, its watery and depraved character is seen in the pastiness of the skin, the presence of effusion in the serous cavities, or in the solid depositions connected with rheumatism.

In chorea, also, as in hysteria, there is no reason to suppose that the convulsive symptoms are dependent upon any local vascular activity. If any organ be more affected than another, it is by being more enfeebled. To use the words of Dr. Watson, "the instrument is not broken anywhere, but slackened, jangling, and out of tune; and (to pursue the metaphor) we have to restore its harmony by bracing it up again."

So far, therefore, the convulsive temperament appears to

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be one of undue delicacy, and as yet we can find no evidence of the existence of any local activity.

3. If a visit be paid to any large lunatic asylum, we find the *epileptics* are gathered together in the wards devoted to those inmates who are demented or *lost*—to use the word by which the keepers define this deplorable condition—and the first glance sufficiently confirms the propriety of this classification. We see, undoubtedly, differences in individuals, which make it an extremely difficult matter to form a connected idea as to the class, and we can scarcely arrive at any conclusion if we remain where we are; but if we pass to other parts of the asylum, and compare what we have left with what we then see, this difficulty ceases. We leave persons who, for the most part, sit moping and drivelling for the day together, whose eyes fix vacantly upon you without any meaning, whose tongues forget to answer after the first syllable is uttered, and we have passed to others who bewilder you with incessant movement and jabbering. Compared with what you have left, the new scene presents signs of intense, though unbridled life; and in this way, therefore, we are able to perceive more distinctly that the epileptic temperament is marked by mental and bodily weakness and not by vigour.

If now we return to the former wards, we may see in what the peculiar characteristics of this feebleness consist. On taking hold of the hand of any of these patients, you feel in all probability a frog-like coolness and clamminess, and this is especially the case in winter. The pulse is not unfrequently twenty beats below the rate of rapidity which belongs to health, and in addition to this it is weak and feeble. The want of animal heat involved in these facts, is further shown in that eagerness after warmth which causes the patient to huddle round the grating which guards the fire, or to extend himself upon the tubes of warm water which serve to heat the cells and corridors. And besides all this the complexion is generally pale and leaden, the cheeks without colour, the countenance languid and dejected, the limbs wasted, and the entire muscular system shrunk and flaccid, particularly if the malady is of any continuance.

The innate debility of the system in these cases is further indicated by unmistakable signs of a scrofulous disposition, —a fact which is insisted upon by the chief authorities of our own times who have written upon this subject. Indeed, some of greatest name believe that there are no exceptions to this complication. In cases also where such signs are not conspicuous, we may often trace the injurious workings of the syphilitic or mercurial poisons, or find traces of scorbutic or some other cachectic disposition. It has been well remarked, also, that where epilepsy has shown itself in persons who have been distinguished for their talents or genius, it has not been until the vital powers had been exhausted by the exertion and excitement connected with their use. In fact, there is no one of these miserable cases in which we are not able to find traces of some organic degeneration such as we have mentioned, or else of that peculiar prostration which follows undue vital activity.

At times, undoubtedly, epileptics may become maniacal, and exert themselves violently, but between this state of excited and erring volition and that of suspended consciousness in which the body is violently convulsed, as in the fits, there is no resemblance whatever. They are indeed antagonistic and incompatible, for the one is marked by the presence and the other by the absence of fever. At times, moreover, there may be a certain fulness of the vessels; but this also does not involve excitement of the system; on the contrary, (if I may judge from the cases which have fallen under my own notice,) this condition is totally opposed to that which is found in the well-fed butcher, and therefore another proof of the want of activity in the system. In short, it is venous congestion, and not true plethora.

In conclusion, it remains to say, that no local disturbance is a necessary complication of the epileptic temperament. In the brain and spinal cord all manner of morbid appearances have been described; but no other proof than their inconstancy is necessary to show that they are not essential to the malady. Upon this, indeed, Esquirol has expressed himself in words which require no comment: —"De toutes ces recherches," he asks, "particulièrement de celles de Bonnet, de Morgagni, Baillie, Greding, Mechel, Wenzell, que pouvons nous conclure? Rien, sinon que ces mêmes alterations ont lieu chez des individus qui ne sont pas épileptiques, comme Wepfer, Lorry l'ont prouvè. Avouons franchement que les travaux de l'anatomie pathologique n'ont jusqu'ici répandu aucune lumière sur le siège immédiate de l'épilepsie." This applies equally to all organs which have been supposed to have any immediate concern in the induction of this malady; for any change which has been described has been noticed also in cases in which there were no convulsive symptoms.

Other points might be noticed, but these are sufficient to show that the temperament in epilepsy, as in the cases we have previously considered, is marked by debility or exhaustion, and not by vigour,—not even by local vigour.

4. Similar conclusions arise out of the history of the convulsive movements associated with febrile affections. Initial rigors are attended with feelings of sinking and coldness, with feeble pulse, sunken countenance, and corrugated skin. It is the same also in cholera, only infinitely more aggravated; for, in this case, coolness of the skin has become coldness and clamminess; the pulse no longer beats at the wrist; paleness and sallowness is deadened into blueness; while depression, with an obscure sense of melancholy, have lapsed into indifference and hopelessness. At the very time the frame is racked with spasm, everything indicates the most overwhelming depression. And that these rigors and spasms are connected with this state is evident, for a twofold reason. It is evident, from the mitigation which takes place as the system rallies, and from the complete cessation when the pulse and heat have returned. It is evident also from the recurrence when the stage of feverish excitement has passed off. Subsultus, indeed, is as constant an accompaniment of the last stage, as rigor is of the first; and it is equally in proportion to the depression of the system at the time, for it is aggravated into convulsion at the moment of dissolution, and into tetanoid rigidity when life is at an end.

This conclusion is borne out also in other cases where an animal poison has been introduced into the system, as in tarantism and rabidity. In the first affection, the symptoms resemble those which succeed the bite of a snake. After being stung, we are told that the person falls down without sense and motion, in which state he is when the involuntary dancing originates; so that, whatever influence music may have in the matter, it is clear that the movements themselves are preceded and accompanied by depression. In rabidity, also, it is well known that the influence of the virus is to induce debility. At the beginning, and before the system is fully mastered, there may be a fair amount of activity and vigour; but this passes off as the malady progresses, and, if life be prolonged, death is preceded by extreme exhaustion. Now, it most generally happens that the convulsions keep pace in increasing severity with the progressing weakness; and we have no alternative, therefore, but to suppose, in this case, as in those which occupied the former parts of this paragraph, that convulsion and feverish activity are incompatible conditions.

Nor can we ascribe the muscular contractions under consideration to any local vascular orgasm. The entire system is poisoned, and any local affection is obviously of a secondary character. All, therefore, that we can say of the convulsive movements with which we are here concerned is, that they are associated with a certain state of the system generally, in which the only marked feature, when compared with the normal standard of health, is expressed by the word "prostration."

The consideration of these circumstances is calculated to illustrate two very important points in connexion with the history of the convulsive temperament, to one of which we have already referred. In the first place, the fact that the muscular contractions associated with febrile disorders are invariably coincident with a state of collapse, and that they disappear when the system rallies, is a strong argument in confirmation of what has been already said when speaking of hysteria and epilepsy, namely, that the convulsions in these cases are connected with a state which is the very opposite of vascular activity. In the second place, we are able to obtain some light as to the relation of the hysteric or epileptic to the strumous habit of body; for, as febrile convulsions are not confined to persons of strumous, sanguine, nervous, or any particular temperament, but happen to all alike when the system is sufficiently prostrated, so also we may argue (as, indeed, experience teaches us) that hysteric or epileptic convulsions may manifest themselves in the most

different habits when the vital energy is sufficiently reduced. Be the force of the analogy what it may, however, it is sufficiently clear that the convulsive symptoms in connexion with the febrile condition arise at a time when the system is in a state of prostration.

5. It is still the same lesson in a different guise when we come to consider the cases in which the muscular contractions are prolonged and continuous. In the subjects of *catalepsy*, all that is observable in the intervals between the fits is an appearance of delicacy, the skin being pale and the pulse more readily affected by external agencies than it ought to be. A man whom I occasionally see, and who at times is affected by this singular malady, has the appearance and manners of an hysterical and excitable woman; and I understand that he is pale and cold during a fit, so arguing that the predisposition may be this paleness and coldness of which I speak. The onset of *tetanus* may be attended with varying excitement, but this gives way as the disease progresses, and death is preceded by great exhaustion. From the beginning to the end there is no true fever. We may conclude, also, that any excitement which may exist at first is not essential, from the fact, that the convulsion continues, or even increases in severity, after it has passed away, and even when it has given place to mortal exhaustion.

In one sense, moreover, this is in accordance with the experience of army surgeons, for they tell us that soldiers are most liable to this malady when dispirited, exhausted, ill-fed, and exposed to cold; and hence in tetanus, as in catalepsy, we may argue, that the true predisposition consists in a depressed state of the vital powers.

6. In order to complete this sketch of the history of the convulsive temperament, it is necessary to pay a moment's attention to certain cases which do not come under any of the preceding heads.

In children, then, convulsions often usher in febrile disorders, and, as in the case of rigors in the adult, they are attended with manifest depression. At other times they are connected with teething, or other causes of irritation; in which case (if we judge from the subsequent feverishness) they seem to replace the initiative rigors of hectic; and here, also, there is no evidence of vascular excitement at the time, but the reverse.

Adults, moreover, are liable to many convulsive affections which belong neither to the hysteric nor epileptic group; but we need only speak of those connected with pregnancy and childbirth, and those which are brought about by excessive hæmorrhage.

In puerperal women, the convulsions may arise under various conditions and circumstances; but in none of these have we any proof that the powers of the system are intensified, and in others the evidence is altogether contrary. When they occur during the latter months of pregnancy, the strength of the mother may be supposed to be exhausted by the great appropriation of her nutrient juices by the fœtus. When they arise from uterine hæmorrhage, the conclusion is obvious. Nor is it different when they serve to usher in that fearful fever which is occasioned by the inoculation of poisonous matters. In none of these cases can it be supposed that the convulsions are connected with any true excitement; but, on the contrary, everything leads to the conclusion, that this frightful addition to the natural troubles of woman happens in a state and at a time when the system is prostrated, and this in an extreme degree.

And, finally, all these considerations are borne out and confirmed by the occurrence of fierce convulsion in persons previously in perfect health, or in the lower animals, during the progress of mortal hæmorrhage; for at this time there can be no conceivable excitement of the system, whether partial or general.

7. In conclusion, therefore, we gather from this survey of the principal varieties in which it is presented to our notice, that the *convulsive temperament* is one of prostration, and not excitement,—of delicacy, and not vigour; and that these characters, though presented in an infinite number of aspects, both in different people, and in the same person at different times, are never lost.

4, Henrietta-street, Cavendish-square.

[To be continued.]

RETROVERSIO UTERI.

By JOSEPH DOUGLAS, M.R.C.S.,
Surgeon to Queen Adelaide's Lying-in Hospital.

On the 17th of October I was sent for to Mrs. C., residing at Knightsbridge. She complained of severe pain in the back, and considerable bearing down. She considered herself in the fifth month of pregnancy, and had miscarried five times at about the same period. The lower portion of the abdomen was occupied by a hard tumour of about five inches diameter; the os uteri was found very low down in the pelvis, bearing a soft, relaxed character, and readily admitting the extremity of the finger. There had been no discharge. The pain being severe, and the countenance anxious, I ordered her a grain of the acetate of morphia, and gave directions for my being sent for should any further symptoms present themselves. On the following, and for many succeeding days, she complained merely of weakness, and a sensation of faintness, for which I directed an occasional dose of camphor julep. The hardness of the tumour over the pubes had much subsided, but its size had greatly increased. Trusting to the report of the nurse, that the bowels and bladder were regularly relieved, I made no further examination until November 8th, when I found the cavity of the pelvis completely blocked up by a soft resistant tumour, the space between which and the anterior wall of the vagina being so narrowed that the finger could not pass, the os uteri being of course out of reach. On introducing the catheter, I drew off eight pints of high-coloured urine, and directed a turpentine enema to be administered; it was, however, returned without any fæculent admixture. On the following morning, on making an examination, I found the os uteri situate very high, and resting against the parietes of the bladder, immediately above the pubes, the patient looking extremely pale and anxious. The case was now evidently one of retroversion, the body of the uterus being completely tilted over, its fundus occupying the lower portion of the pelvis, and its neck pressing against the bladder, causing complete retention of urine, I considered it to be the better plan in some degree to restore her strength, before proceeding to mechanical assistance. I therefore gave her twenty minims of the tincture of sesquichloride of iron three times a day, and directed the abdomen to be frequently rubbed with warm turpentine, keeping the bowels open with castor-oil. This plan, including the regular use of the catheter and of turpentine enemas, was continued until the 20th, when, finding her strength and health in a great measure restored, I directed her to lie on her left side, and, with great caution, introduced my left hand into the vagina, gradually pressing the fundus of the womb upwards, until I had the satisfaction of feeling it quit the pelvis, and resume its normal position in the abdomen; the moment of this being accomplished was marked, on the part of the patient, by a sensation of the return of something to its natural position in her body! The catheter being no longer necessary, I ordered the use of a T bandage for some days, and for a week or two longer continued the use of the tincture of iron. She has ever since continued in perfect health, and has every indication of going on to the full period of gestation in safety.

9, William-street, Lowndes-square.

CASE OF SPONTANEOUS DISLOCATION OF THE LENS.

By GEORGE W. BALFOUR, M.D.

The following case of spontaneous dislocation of the lens, of itself a rare occurrence, will be found to present two especial points of interest. 1st, the diagnosis; and 2nd, its termination, as illustrating a mode of treatment which will be found applicable to many cases of a similar accident.

I first saw the patient, widow Anderson, on the 26th of January. She then complained of excruciating pain in and around the right eye, particularly just over the supraorbital notch. On impression, the conjunctiva was found to be a complete mesh of enlarged blood-vessels, the cornea hazy, but free of vessels; the anterior chamber filled with a brownish tumour, apparently resting on the posterior surface of the cornea; at the superior and internal part of the cornea, a small portion of the iris was observed fully dilated;

between it and the edge of the tumour an equally small portion of the pupil was visible. There was considerable lachrymation, and vision was entirely gone, with the exception of the perception of light. Her age was 77, her pulse 80 and firm, tongue clean, and general health good. The following is her previous history:—She never used spectacles till above 60, but then observed that the same glass did not suit both eyes, although she cannot specify the exact nature of the difference. Both before and since that time she has frequently complained of pain as now, but not so bad. At those times the eye watered much; the left eye often watered sympathetically, but was never painful. For years past black specks have been constantly floating before the right eye; and latterly a larger one, like a herring-scale, has occasionally been observed within the field of vision. None of these were seen by the left eye. Her present attack commenced on the morning of the 22nd January, when she awoke blind, and with acute pain in the eye, which has since increased.

As the exact nature of the case was not very evident, I resolved in the first place attempting the reduction of the general ophthalmia, hoping that some circumstance might meanwhile occur, tending to elucidate the nature of the tumour within the anterior chamber. With this view leeches were applied to the external angle of the eye, and hot fomentations and poultices were applied; the nape of the neck was subsequently blistered, and her bowels occasionally purged. Under this treatment the appearance of the eye improved, and the severity of the ophthalmia was lessened; the only difference observed in the apparent tumour was, that it occasionally sunk inwards, as it were, causing the disappearance of the little bit of pupil visible; at these times the cornea became much clearer. A dilute solution of tannia was now ordered as a wash for the eye, and two days afterwards I was surprised to find the cornea clear and transparent, the pupil of its natural size and figure, the iris natural but tremulous, the conjunctivitis much better. This was on the 8th of February; since then the eye has gone on improving. By the 10th she could distinguish the sky; in three days more the branches of trees, fingers held up, &c. Now she can see every thing, but not so well or distinctly as formerly, and she can neither work nor read; but in another month or so an ordinary two and a half inch lens may be fitted into the right eye of her spectacles, which will, I trust, restore her to useful vision.

The result of the case showed that the supposed tumour had been the lens spontaneously dislocated, lying behind and protruding the inferior portion of the iris; by some lucky accident it got disentangled, and fell to the bottom of the vitreous humour, where I hope it will remain.

The fortunate termination of this case seems to show that, in all similar cases, dilatation of the pupil by belladonna may be resorted to, not only as an aid to diagnosis, but as a means of cure, the lens disappearing beneath the vitreous humour as in ordinary cases of couching. The previous blow in traumatic dislocation will probably have produced enough of disorganisation of the vitreous humour for the purpose, and in all cases of spontaneous dislocation it is probable that there has been previous disease of the vitreous humour, as seems to have been the case here, as evidenced by the pain, floating specks, &c. It seems probable that the larger speck, the herring-scale, was the commencement of the dislocation—a portion of the lens actually loose. Dilatation of the pupil was not resorted to in the foregoing case, because the iris seemed to be already fully dilated.

In conclusion, all writers on ophthalmology who mention this subject, state that the diagnosis is easy, the lens, either transparent or opaque, being visible in the pupil. The treatment recommended is either couching or extraction. The preceding case shows that the diagnosis is not always easy, and that the treatment need not be so harsh in many if not most cases.

Cramond, near Edinburgh.

A LETTER in last Saturday's *Times*, signed "Truth," and dated from Southsea, states, that in a Government steamer, under a Commander R.N., there are a surgeon and an assistant-surgeon, the former receiving 182*l.* 10*s.* per annum, and the latter 129*l.* 5*s.*, but if the vessel be under the command of a master, there is only an assistant-surgeon, and his salary then is 184*l.*, being a trifle more than that of the surgeon. Surely this is either a mistake or a great anomaly.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

UNIVERSITY COLLEGE HOSPITAL.

By J. RUSSELL REYNOLDS, Esq., M.R.C.S.,
Late Physician's Assistant University College Hospital.

PYELITIS.

RACHEL L., aged 34, admitted under Dr. Parkes, May 8. A stout woman, of strong conformation and moderate height. She was in service in the country until three years from the present time, and has lived for the last eighteen months in London as a kitchen-maid. Her work has been laborious, almost always standing, and she has often felt that it was too much for her to accomplish. She is unmarried, but has had one child rather more than three years since. Her food and clothing have always been good, and sufficient in quantity. Her parents are living, and are in good health. She began to menstruate when thirteen years of age, and was "regular" for eight months. She then went into service as a "maid of all work," and the discharge ceased for fifteen months. She suffered no inconvenience from this, but, upon its return, had occasional dysmenorrhœa; the discharge was profuse, and accompanied by clots and shreds. This has been more marked recently.

With the exception of infantile diseases, her health has been good. During her pregnancy she had frequent attacks of epistaxis, but there has never been any other symptom of the hæmorrhagic diathesis. She has never had rheumatism.

Five months before admission, without any assignable cause, she felt pain in the region of the left kidney. It was slight at first, came on at different times, and, after lasting for about half an hour, abated. The attacks of pain, however, soon became more severe; it was not confined to the renal region, but darted downwards and forwards to the groin and pubes. She had no rigors or heat of skin; her appetite was good, and she slept well. The only additional complaint was "a sinking feeling at the pit of the stomach," and craving for food, principally vegetables, which neither increased nor relieved her sensation of discomfort. The lumbar pain continued for two months, gradually becoming more severe and constant; it was confined to the left side; and now her urine, which she was compelled to pass much more frequently than usual, changed in colour; it was of a pale claret, and subsequently of a coffee tint. She felt at times pricking pain in the upper and anterior part of the left thigh. She lost her appetite, felt weak, and could not continue her work. The bowels were regularly opened throughout the whole period. For a fortnight before admission, she had had medical attendance, but without any marked effect. The urine has regained its natural appearance. Catamenia have appeared twice since the pain first commenced, and at each period she has felt relieved. She is menstruating now.

Pain is at times very intense in left renal region, and there is great tenderness at the same point. None in right, none in pubic region, none along the course of the spine. Torsion of the trunk does not increase the pain; there is absence of any alteration in the joints in any part of the body. There is no change in the form of the vertebral column. There is not any sensation of abdominal pulsation, neither can it be discovered by the hand. No palpitation of the heart; no murmur in the course of the aorta. She has no difficulty in extending the thigh; no spasmodic movement of the legs; no diminution of their sensibility. She has perfect control over the evacuation of both the rectum and bladder. There is no evidence of accumulation in the colon; the bowels are regular, and free in their action. There is no general tenderness of the abdomen; upon deep pressure over the left kidney only is there pain; no unusual distention with flatus. Pulse soft and full. Tongue whitish on the dorsum; moderately red at the tip and edges. No sickness, no thirst, restlessness, nor fever. Ankles not œdematous. Occasionally she suffers from headache, but has not become unusually drowsy. Skin is of medium temperature, and not dry nor harsh.

Applicetur emplast. cantharidis, 4 by 3 in., reg. renali. sinist.

℞ Potassæ carbonatis, gr. x., sodæ pot. tart., gr. x.; potassæ nitratis, gr. v.; sp. æther. nitr. ℥xv.; infusi junip. c. scopar., ℥iss., M ft. haust. ter die sum.

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℞ Extracti lupuli, gr. ijss.; extr. lactucæ, gr. ij., fiat pilula horâs omni sum.

May 10th.—Pain continues. Tongue whitish; bowels open; no sickness; pulse 90, soft and full; respiration 18; tenderness as before.

Cucurb. cruent. ad. ʒiij., reg. renali. sinist.

May 11th.—Pain much relieved by cupping. Tenderness less marked; slept well; pulse as before; catamenia ceased. Urine 20oz., 1·025 sp. gr., sharply acid, of amber colour, with flocculent deposit (¼th) of blood corpuscles, epithelium scales, and crystals of oxalate of lime. Upon heating, and adding nitric acid, there is a small deposit of albumen.

May 12th.—Tenderness slight; at times, but rarely, spontaneous pain in renal region. Heart sounds normal. Both apices of lungs sound well upon percussion. Auscultatory signs normal. Urine, 36oz., 1·015 sp. gr., very acid, deposit of epithelium only, no albumen.

May 14th.—There was an increase of pain last night, but she is not suffering from it now. Slight tenderness remains. Urine, 34oz., 1·015 sp. gr., pale amber colour, sharply acid, deposit as before.

May 15th.—Pain recurs at irregular intervals, and micturition more frequent than usual. Pressure directly downwards towards the kidney, through the abdominal walls, is not attended with pain; but, when strong pressure is made upon the right side, and the intestines are thus forced to the left, sharp shooting pain is felt in the original seat, (the left renal region.) Urine 36oz., 1·012 sp. gr., reaction and deposit as before.

She presented no other symptoms of importance, and was discharged much relieved.

Remarks.—Pain in the loins, the first symptom attracting the attention of this patient, may arise from very different causes, and be, for a longer or shorter period, the only evidence of disease having its seat in organs which, although placed in close proximity to each other, vary widely in the nature and importance of their functions. The difference in value of the several organs which may manifest their morbid condition by this one symptom,—pain, renders the diagnosis of its source the first point to be obtained, in order to direct the treatment which may relieve it, and to give an estimate of its probable result. In this case, *lumbago* was not the cause of pain; for it is usually equal in intensity on the two sides, is much increased by torsion of the trunk, and is generally accompanied by rheumatic affections of the joints in different parts of the body. The sufferings were greater than those usually undergone in the early stages of *caries of the vertebral column*,—and in the more advanced conditions of that disease there is some alteration in the form of one or more of the spinous processes; together with loss of sensibility and voluntary power in the lower limbs, accompanied by their spasmodic movement. None of these symptoms presented themselves in the case under consideration. *Aneurism of the abdominal aorta* may exist, and give no other evidence of its presence than severe pain in the lumbar region. This, however, is extremely rare; and the absence of murmur and pulsation renders it highly improbable that the aorta was the seat of this disease. There was no accumulation of fæcal matter in the *colon* to cause pain.

The next symptom which appeared in the history of the case clearly indicated that the urinary organs were affected. The secretion was greatly changed in character, and there was increased frequency of micturition. These symptoms might be due to disease of the bladder or ureter; but the absence of pain or tenderness in the pubic region; and their presence, to a notable degree, in that of the *kidney*, leave no doubt of *its* being the organ in fault. The change in the urine makes it probable that there was some more important disease than mere *nephralgia;* and again, the pain was not so severe as it is in that affection. With *nephritis* (which is, as an acute idiopathic inflammation, extremely rare in this country) there is great febrile excitement and burning pain; the urine is sometimes, at the commencement, of a deep red colour, and subsequently pale and limpid,—thus presenting, to some degree, the kind of alteration observed in the case of Rachel L——; but she cannot be said to have suffered from an *acute* inflammation, and, if the substance of the kidney was inflamed at all, *chronic nephritis* was her complaint; but the chronic form is almost invariably connected with the gouty diathesis, affects both kidneys at the same time, and is attended by the secretion of alkaline urine, or, at all events of urine much less acid than is common in the healthy condition. It is plain that some other disease must have been present here. The absence of nephritis and of all evidence of peritonitis renders it extremely improbable that *peri-nephritis* was the cause of suffering. Dr. Prout was of opinion that it never occurred as a distinct disease. Its course is usually that of a suppurative inflammation, and is totally different from that of the case under consideration. The pain and tenderness were more intense than they are commonly observed to be in *Bright's Disease*. The albuminous condition of the urine was only temporary, due most probably to a small quantity of blood derived from extraneous sources, as the only time on which it could be recognised was the day following that on which the catamenia ceased. The absence of œdema, of any change in the character of the skin, of symptoms indicating the presence of urea in the blood in such quantity as to exert a deleterious influence upon the functions of the brain, together with the negative characters of the urine, render it impossible to affirm, and almost to suppose the existence of that morbid change known as "granular degeneration of the kidney." As it does not appear that any of the diseases mentioned can be believed to have caused the symptoms presented by this woman, we come, *per viam exclusionis*, to *pyelitis*. The pain was of the amount and kind usually present in that affection. It was referred to one side only, and this is commonly, indeed almost invariably, the case. It is said that the left kidney is more commonly affected than the right. M. Rayer's experience will not allow him to subscribe to this opinion; but, inasmuch as one case is of importance, this would tend to confirm the notion of the older physicians. The urine presented characters peculiarly met with in pyelitis. It was a chronic inflammation, with occasional exacerbations. What was its *species?* *Simple*, without any obvious cause, is so rare, that it may be excluded. Was it *tuberculous?* There was no evidence of this in the urine, so far as it was examined. The lungs were healthy; and it would be contrary to the law of Louis that tubercles should exist in the kidneys, without any similar affection in them; there was no appearance of the tuberculous cachexia. The same may be said of the *cancerous* form: its cachexia was not present, the urine was not fetid, nor did it contain any of the matters peculiar to that disease; and again, the age of the patient renders the existence of carcinoma improbable. There is no reason to suspect *verminous* growths in this case; they are extremely rare. In the vast majority of cases, pyelitis is dependent upon *calculus*, and it is most in accordance with the symptoms, both positive and negative, to believe that such was its cause in this instance. During the time that she resided in the hospital, no calculous matter was found in the urine; she was not aware of ever having passed any; but this is perfectly compatible with the idea that she may have been its subject; as, from the shortness and dilatability of the urethra in females, small fragments are often known to have made their exit unobserved, unless the attention has been particularly directed to their detection. If a calculus becomes impacted, there is commonly seen an intermittent affection of the kind described in the preceding case.

The urine did not present the characters commonly met with in the *lithic acid* diathesis,—the habits of life were unfavourable to its induction. There were no phosphates in the urine, and it was acid, circumstances not leading to the belief that she could have had a *phosphatic* calculus. The other form of common occurrence is the *oxalate of lime*. The derangement of the digestive functions, and craving for vegetables, may have had some influence in producing (?) this concretion. The "sinking feeling," of which she constantly complained, is among the more constant symptoms of oxaluria. The amount of gastric disturbance was less than is usually present in the oxalic diathesis, though this morbid tendency may exist without any derangement of the stomach worthy of notice. There was no connexion in this case with the gouty or rheumatic diathesis, (observed in lithic acid concretions,) and oxaluria has never been shown to be related as cause or effect with those diseases. Oxalate of lime causes hæmaturia more commonly than does any other form of calculus, and when this is the case the urine becomes dark and coffee-coloured, owing to its action upon the colouring matter of the blood. The changes in the appearance of the urine, which took place before she was admitted into the hospital may have originated in this manner. Again, oxalate of lime crystals were passed; and, though these may be seen when there is an impacted calculus of

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lithic acid, yet the reasons for believing that such a calculus did not exist in this instance, throw the import of their presence in favour of the existence of an oxalate of lime concretion.

The inflammation caused in this case was of the kind which M. Rayer describes as common, when a calculus or many calculi remain for some time in the pelvis or calices of the kidney, viz., chronic with occasional exacerbations.

Treatment.—M. Rayer finds that a blister will give relief in some cases when cupping has failed. It was tried first in this instance, but was not productive of so much benefit as the loss of a small quantity of blood. Diluents and diuretics were given; the urine was natural when she left the hospital, and she had experienced great relief.

Prognosis.—As one kidney only was affected, and that not severely, as the general health had suffered little, as there was no appearance of pus in the urine, and as no other part of the urinary system was diseased, the prognosis was favourable rather than otherwise, inasmuch as the immediate result was considered. As it was not possible to ascertain with certainty whether a calculus was impacted or not, the future issue of the case was necessarily a matter of doubt.

ROYAL FREE HOSPITAL.

By JOHN L. MILTON, Esq., M.R.C.S. Lond.

UNUNITED FRACTURE.

Few accidents have more occupied the attention of our greatest surgeons than fractures. Even in their uncomplicated state their great number, their variety, the way in which some elude observation, or, when detected, evade reposition; the serious deformity to which they may give rise, and the helpless state to which thousands of patients are reduced by a neglected or intractable fracture, have justly placed this class of accidents and their results among the most serious injuries to which the human frame is liable. Among these results, ununited fracture has long held a prominent place; and, in the belief that every contribution to a subject on which opinions are so much divided has its value, we beg to subjoin the following details:—

George Reid, a labouring man, was admitted Dec. 11th, 1850, into the Royal Free Hospital, with diffuse erysipelas of the right arm. It appears, from his account of the case, that, about two years ago, he fell from a ladder, a height of 34 feet. He felt much hurt and shaken, but was able to get up and return home. Finding his arm broken, he went to a surgeon, and afterwards to the Middlesex Hospital. His statement of the treatment adopted there is sufficiently obscure, but it would seem that he left off attendance too soon, and returned to work with an ununited fracture. He continued to work till the date of the present accident, being able to unload a cart-load of bricks or pull anything nearly as well as before, there being no pain or displacement of the arm; but he never could bend the forearm upon the arm, and raise it up, as it then fell over.

On Christmas-day, being somewhat tipsy, he tilted his chair over, and fell upon his elbow. Next day he went to work, but felt ill, and his arm was painful. By noon he was unable to work any longer, and towards evening the pain and swelling grew much worse. He was finally admitted, as stated, on the 31st of December.

At this time diffuse erysipelas covered the arm, from the wrist to above the elbow. The arm was greatly thickened, measuring more than 18 inches in circumference, and around the elbow were numerous vesications. In the situation of the internal condyle was a large prominent swelling, in which Mr. Gay detected fluid, and which he accordingly resolved on laying open. So soon as the bistoury was introduced, a large quantity of thin fluid was forcibly expelled, followed by some portions of substance strongly resembling curds. On introducing the finger through the opening, it traversed a large cyst, at the further end of which were found the two ends of the fractured bone, rough and bare. The arm, which was kept perfectly straight and fixed, through the distension to which it had been subjected by the contained fluid, gave way suddenly about two inches above the elbow, with indisputable evidence of its being fractured in that situation. As no active steps could be taken at the present moment, a poultice was applied to the opening and the arm confined by a bandage; the patient being put on moderate diet, and treated with salines.

This treatment soon had a very beneficial effect. On the next day the redness had faded, and the swelling much diminished. The patient, on being asked how he felt, answered, "Quite well," and throughout his stay exhibited the most profound and stoical indifference to suffering, or else experienced none.

Some days after, as the discharge could not readily escape from and "bagged" near the elbow, a counter opening of considerable depth was made at the most depending part. A good deal of bleeding ensued, and Mr. Gay was subsequently obliged, after trying pressure and styptics, to cut down upon and tie two small vessels.

From this time the healing of the abscess proceeded uncheckedly, and, when seen in the early part of February the inflammation appeared to have entirely subsided, and the amount of motion in the arm enjoyed previous to the accident for which he was admitted had been regained. The arm was wasted, and the muscles seemed flabby, but there was a considerable amount of control over the movements of the limb, which seemed, however, to depend upon the fracture having formed a sort of false joint, while the elbow was carried to and fro with the forearm. The man expressed himself perfectly satisfied with the amount of use he derived from it, and was anxious to leave the hospital as soon as possible. It was surprising to observe how the new joint formed by the fracture superseded the elbow in usefulness. He could flex or extend the portion of the limb below the fracture without the least inconvenience, and assured us that he felt quite equal to his work, which involved the use of both hands, as in wheeling a barrow or carrying heavy weights. The only exception to its usefulness was his inability to raise a weight to a height even with his shoulder.

Mr. Gay, reviewing this state of matters, seeing the considerable control exercised over the movements of the arm and forearm, the great use such a joint offered, and the indifferent, and in many cases lamentable, results which have followed attempts at healing ununited fractures, determined on not urging the man to submit to any operation, and to discharge him. Mr. Gay, however, suggested the aid of a splint which should have the effect of fixing the fractured bones firmly, so that the elbow might again be brought into play; but whether this will give greater freedom to the use of the arm or more control over it, is at present doubtful; the probability being that nature's reparation will outvie that of art.

FALSE ANCHYLOSIS OF THE JAW.

The following case, strongly exemplifying how long a serious inconvenience may be tolerated by the frame, the inability of nature to remedy such a defect, and its ready, and we hope successful, removal by the knife when we might vainly have attempted a cure by milder means, will, we hope, not be without interest to our readers.

The patient, a pale, thin young man, suffered fifteen years' ago from hooping-cough, which lasted long, and was marked by a serious relapse. He was salivated, and the soreness of his mouth was followed by stiffness and inability to open his mouth freely, which gradually increased to such an extent, that when he entered the hospital nothing short of violence could bring his teeth more than a quarter of an inch asunder.

On the right side the cheek adhered to the gum as far as the commissure of the lips. On Saturday, January 25, this was divided by Mr. Wakley for about an inch backwards, and two strong cartilaginous bands passing from the anterior surfaces of one jaw to the other were severed. A cork was then placed between his teeth, but, finding that he bit this through, and that it was not answering the object, Dr. Robertson, the house-surgeon, placed in his mouth the gag of a stomach-pump. This powerfully separated the jaws, and in a few days he was able to open them to the extent of nearly an inch. One more bridle still remained; but Mr. Wakley was anxious to defer further steps till he had seen the full result of his first operation.

The Navy Estimates.—48,635*l.* is the sum required in the navy estimates for the ensuing year for scientific purposes; last year 49,703*l.* were awarded for the same object. We wonder that the whole amount of the item was not struck out, instead of a mere reduction, seeing that the present House of Commons is so practical as not to care for science. The decrease is 1068*l.*

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SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON COMPARATIVE OSTEOLOGY.
BY RICHARD OWEN, F.R.S.
Hunterian Professor to the College.

THIS AFTERNOON, MARCH 15.—Lecture VI.—Skeletons of the *Batrachia*. Bi-concave Vertebræ of the Perennibranchiate Species: Simplification of the Skeleton as compared with that of Fishes. Cup-and-Ball Vertebræ of the Caducibranchiates; Reduction of the Number of Vertebræ in the Amourous Family. Determination of the Bones of the Head. Pectoral and Pelvic Extremities. Key to the Nature of the Pelvis afforded by that of the Menopome. Metamorphosis of the Skeleton of the Frog. General Observations on the Batrachian Skeleton. Its characteristics determine the Nature of Gigantic Extinct Species.

TUESDAY, MARCH 18.—Lecture VII.—Skeletons of the *Ophidia*: Characterised by the Vast Number and Peculiar Complexity of the Vertebræ. Their Processes and Modifications in Different Species and Different Parts of the Vertebral Column. Ribs Hollow, Moveable, without Sternal Ribs or Sternum. Long Cervical Hypsapophyses, which form Œsophageal Teeth in the Detrodon Scaber. Density and Strength of the Overlapping Cranial Bones: Mobility of the Maxillary, Mandibular, and Palatine Bones: Modification of the Upper Jaw in Poisonous Serpents. Rudimentary Scapular Arch in Anguis. Vestiges of Hinder Limbs. Large Fossil Serpents. Compensations for Absence of Prehensile or Ambulatory Limbs.

THURSDAY, MARCH 20.—Lecture VIII.—Skeletons of *Lacertilia*. Easy Transition from Serpents to Lizards. Some Procælian Type of Vertebræ in both: their Modifications in the Cervical, Dorsal, Lumbar, Sacral, and Caudal Regions. Modifications of the Atlas, illustrated by that in Extinct Saurians. Structure of the Skull in Lizards. Complex Scapular Arch. Locomotive Extremities. Costal Parachute of Draco Volans. True Wings of Extinct Pterodactyles.

SATURDAY, MARCH 22.—Lecture IX.—Skeletons of *Crocodilia*. Osteological Distinctions between Crocodiles and Lizards. Characteristics of the Vertebræ in Different Regions of the Crocodile. Determinations of the Bones of the Head. Complex Eustachian Canals. Scapular and Pelvic Arches and Extremities. Illustrations of the Extinct Reptilian Orders of Dinosauria and Enaliosauria.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	March 15.—STATISTICAL SOCIETY.—*Anniversary*. Three o'Clock.	
	MEDICAL SOCIETY OF LONDON. *Subject*: Dr. Nunn, "On a Change which takes place in the Skin of the Legs of Persons affected with Certain Forms of Dropsy. Eight o'Clock.	
Monday,	March 17.—STATISTICAL SOCIETY OF LONDON. *Subject*:—Lieutenant-Colonel Sykes, "On the Mortality of the Troops, European and Native, under the Madras Government, from 1841 to 1847 inclusive." Eight o'Clock.	
	CHEMICAL SOCIETY. Eight o'Clock.	
Tuesday,	March 18.—PATHOLOGICAL SOCIETY. *Meeting of Council*. Seven o'Clock.	
	LINNEAN SOCIETY OF LONDON. Eight o'Clock.	
	HORTICULTURAL SOCIETY. Three o'Clock.	
Wednesday,	March 19.—MICROSCOPICAL SOCIETY. Eight o'Clock.	
	ENTOMOLOGICAL SOCIETY. Eight o'Clock.	
Thursday,	March 20.—ROYAL SOCIETY. Half-past Eight o'Clock.	
	HARVEIAN SOCIETY. Eight o'Clock.	
Friday,	March 21.—ROYAL INSTITUTION. *Subject*:—Mr. Brockedon, "On some Properties peculiar to Caoutchouc, and their Applications." Nine o'Clock.	
Saturday,	March 22.—GUY'S HOSPITAL PHYSICAL SOCIETY. Eight o'Clock.	
	ROYAL BOTANIC SOCIETY. Quarter to Four o'Clock.	
	MEDICAL SOCIETY OF LONDON. *Subject*:—Dr. Forbes Winslow, "On Prison Discipline in relation to its Influence upon the Health of the Body and Mind." Eight o'Clock.	

THE MEDICAL TIMES.

SATURDAY, MARCH 15.

MEDICAL TAXATION.

THE State carriage has been upset by the Chancellor of the Exchequer loading it in a very unfair and clumsy manner. The success of Mr. Locke King's motion for the extension of the county franchise was a mere excuse,—a kind of companion ladder, of which Ministers availed themselves to get out of their uneasy seats. The real cause of the overthrow, we feel persuaded, was the Chancellor of the Exchequer, who found himself embarrassed with the "probable surplus" of 2,521,000*l.*, and set about stowing it away on principles which were quite contrary to the common laws of gravitation. The Income-tax was a burden—a grievous, oppressive, intolerable burden—which weighed heavily on the inhabitants of every town and village through which the State vehicle rolled its cumbrous wheels; and although Lord John Russell has had the character of being a good whip, no doubt he felt, as he grasped the reins of office, so uneasy in his seat that he knew, or instinctively felt it impossible to turn the corner with such a budget inside. His right honourable friend, the Chancellor of the Exchequer, to dispose of this marvellous surplus, set about lightening the machine by taking a certain amount of the weight off the duty upon coffee, chicory, timber, sugar, and agricultural seeds, substituting for the obnoxious window-tax another upon houses, and transferring from the county-rates a charge for the maintenance of pauper lunatics, amounting to 150,000*l.*, taking, strange to say, a larger share for the maintenance of those confined in county, than for those confined in private asylums. We do not wonder that, with a balance so disturbed, any carriage should be upset; but the machine has been *pro tem.* lifted out of the mire, and set agoing again, with the same driver on the box, and the same passengers inside. We have not consulted Zadkiel or Moore's Almanack; we do not believe in astrology, mesmerism, or witchcraft; therefore we do not pretend to raise the veil of futurity, and anticipate the fate which we apprehend must await the course of such unsteady and partial legislation. We would, however, fain point to some sign-post, or transmit some telegraphic communication to the Chancellor of the Exchequer, giving him some hints respecting the duty *he* at all events has to perform towards the Medical Profession.

The window-duty is on all hands admitted to be one of the most odious taxes ever imposed upon an intelligent community; and upon medical men, living in houses highly rented, it falls with peculiar hardship. The reasoning of the Chancellor upon this point appears to us extremely unsound; he observes, "I think that the value or rental of a house is a fair test of the means of the owner or occupier." We challenge the fairness of this principle. Is the amount of his house-rent any criterion whatever of the income of a London physician? Yet in the Budget, which at present exists in a state of suspended animation, undergoing some tortuous process of resuscitation, it is proposed that all houses above 40*l.* a year shall pay two-thirds of the old window-tax. Again, our financial philosopher concedes that all houses, a portion of which may be appropriated to any kind of business, shall be largely exempted from this tax, and pay only 9d. in the pound. But surely the dwellings of physicians and surgeons, as well as boarding-schools and private lunatic asylums, are equally entitled to consideration as places in which general business is carried on. Then why draw so invidious a distinction between county and private lunatic asylums? The proprietor of Haydock Lodge has, on this point, sent out a circular, in which he broadly affirms, that we are indebted to private asylums for all improvements which have taken place in the management of the insane, which the counties have only copied, and that generally very unsuccessfully. The evidence contained in the Reports of the Commissioners for 1834 and 1847 seems to us to bear out the truth of this statement. The distinction is an invidious one, and ought not to be recognised; for

surely the enterprise of individuals who have vested enormous sums in such undertakings, at a period when the counties remained culpably supine, allowing their pauper-lunatics to pine in gaols and workhouses, ought not to be wholly disregarded. True it is that counties are now very generally building lunatic asylums; and private establishments, which have for years maintained pauper-lunatics, are being evacuated without the slightest compensation or consideration being shown towards the proprietors, who have embarked their capital in such establishments; therefore, when the Chancellor of the Exchequer proposes so invidious a distinction, we are not surprised that it should be met with resistance.

But the State carriage has hardly yet resumed its journey; whether its wheels, as *Punch* has it, will ever roll safely over the *Wood*-pavement, is a problem which a very few weeks will now determine; but, in the mean ume, let the Medical Profession be on the alert, and the Chancellor of the Exchequer not disdain taking such hints as he may find thrown out in the *Medical Times*.

CONVICTION OF SARAH CHESHAM.

There are some points of interest in this case deserving of the attention of the Medical Profession. This woman has been for five years a poisoner by profession; taking life as it suited her, on her own account, and teaching others the mysterious and deadly art. Previous to the last trial, ending in her conviction, she had been twice indicted for the alleged murder of her two children, but had succeeded in escaping from the righteous judgments of the law. Instead of being deterred by her perils, she seemed to be more emboldened in the career she was pursuing; and without flinching for a moment in her hateful designs, she only meditated how she might accomplish them with equal certainty and greater secresy and ease. The cold malignity of her conduct exceeds anything in modern records, and vies in atrocity with the most detestable examples of Mediæval barbarity.

It appears that on her second trial the medical witness described with minuteness the symptoms and progress of poisoning by a repetition of small doses of arsenic, and that the prisoner, although in danger of the gallows, listened with greedy ears to the recital, hoarded every incident in her memory, and, on her acquittal, proceeded to put in practice the fearful suggestions she had heard. The law court was to her perverted mind a school of homicide. She there learned all the refinements of murder, and came forth from the prisoners' dock an adept in the black art. Forthwith she prepared rice puddings saturated with arsenic, and administered the lethal food to her husband in small quantities through a lengthened period, thus gradually sapping the stronghold of life, and scarcely leaving a trace to betray her deadly work. Her victim perished; and it was only after great care that the fatal agent was discovered.

This woman rejoiced in blood; she killed for the mere love of murder. Like many other of the Essex poisoners, she was impelled by no adequate motive, and took away life merely to gratify the satanic suggestions of her evil heart. Unsatisfied by the murders she had secretly committed with her own hand, she prompted others to the same crimes. She was publicly known in her neighbourhood as a poisoner, as women in old time were notorious as witches, and thought capable of striking dead with a look.

The acts of this woman cannot be accounted for on any ground of rationality. She had indulged her homicidal propensity until it had become an invincible passion of her heart. Her reason had lost its controlling power, and casuists might call her insane.

Be it so; but she is equally guilty. It is the duty of all men to check the beginnings of crime, and, if they do not, they are responsible for its issues. This precept is in accordance with the Divine law, and is the corner-stone of sound morality. There is too much maudlin sensibility abroad in favour of excusing the guilt of insane criminals; but injudicious pardon is often a premium on transgression. The superlative atrocity of a crime, defeating all the experience of life and the calculations of reason, never can constitute a plea for mercy.

The acts of this woman—only a type of many such,—call loudly for the interposition of the Legislature to prevent the indiscriminate sale of arsenic and other poisons. Another session cannot pass away without seeing something done to arrest the fatal practices now too prevalent in the rural districts. A grave responsibility rests upon the Government, who, from this time forth, must be considered morally responsible for all the poisonings that occur, through a neglect of the necessary legislation. It is idle to say that the wants of the public require that commercial dealings should be unfettered. We are aware that arsenic is employed in large quantities by farmers for agricultural purposes; but their interests might be guarded while the interests of our common humanity are not forgotten. Parliament might at any rate decree that arsenic for sale should be mixed with charcoal, which would effectually prevent its use as a poisonous agent. A legislative prohibition in the promiscuous sale of arsenic is become a necessity. We hope that our brethren and the druggists throughout the country will meanwhile exercise extreme caution in the sale of all deadly drugs to ignorant persons, and thus do as much as in them lies to abate this foul crime and national disgrace.

THE COLLEGE THEATRE.

It is strange, but not less true than strange, that the theatre in which the lectures and orations are delivered at the College of Surgeons is a perfect model of *bad* ventilation. We, who are waging a perpetual war against foul smells, and continually urging upon others the evils of contaminated atmospheres, are compelled to endure both, in a pre-eminent degree, in the very heart of our own College! The only relief to closeness is to seek a draught; and the proof that such a luxury is to be found is afforded by the colds and coughs, the rheumatisms and stiff necks, to say nothing of sore throats, which render miserable many an ardent student of science. The *well-like* feel of the theatre at Professor Owen's opening lecture was generally commented on, and we know that some of the audience are sufferers therefrom. If there be any hope of enlarging the College, we do trust that the theatre will be improved; but, as such a contingency is rather remote, we conjure the powers that be to take some means to introduce a little more oxygen and a little less carbonic acid into the lungs of their visitors and members.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Our anticipations of the weakness of the executive of this learned corporation have most unhappily been verified. We give Mr. Hodgson's inaugural address almost *verbatim*. We heard it with difficulty, and much fear that the President is unequal to the office thrust upon him. As *Punch* said of Lord John, "the place is too much for him." For Mr. Hodgson personally we entertain the most profound

respect; while we also consider his appointment as a compliment to the provincial surgeons, in whose cause we have so long and so anxiously laboured. As for the majority of the Council, we trust that, unused to office, they will allow themselves to be guided by Dr. Curnham; still there are one or two hints we would in all kindness offer them. First and foremost, let them determine upon a professional reader, one who will not "tear a passion to tatters, and split the ears of the groundlings." In this respect especially Mr. Charles Hawkins is a great loss to the Society. Again, the present mode of taking the ballot for new Fellows is objectionable and inconvenient, especially in a crowded meeting. We hope some means of improvement will be devised. We this week publish a short abstract of the proceedings of last Tuesday. It is not our habit, nor is it in accordance with the rules of the Society, to do so; but if the Council cannot or will not enforce their own regulations, we as others are warranted in considering them abortive. Dr. Bence Jones's speech was the speech of the evening—in fact, the only one that repaid the pilgrimage to Berner's-street.

POISONOUS NATURE OF SCOTCH CHLOROFORM.

THREE weeks ago we published an article with the above title, in which we directed attention to the fact, that the chloroform made in Scotland and purified according to Dr. Gregory's process, did not keep, but that it soon became charged with poisonous gases, and was then unfit for medical purposes. By the publication of that article we have, it appears, given offence to the Scotch makers; and the firms of Messrs. Duncan, Flockhart, and Co., T. and H. Smith, and John J. Macfarlane and Co., have actually written to us, to say "that the inference which that notice is intended to convey is false." Whether such be the case or not, will perhaps be made evident by the following extract from their letter:—

"Five months ago, in the absence of Dr. Gregory on the Continent, Dr. Christison, on the part of the conductors of the *Monthly Medical Journal*, published a caution to manufacturers of chloroform, against the use of a process which Dr. Gregory had made known in that journal not long before, and which we all had found to produce an article incapable of being kept without decomposition. As we had recalled from our customers all the chloroform prepared by us according to that process, have not resorted to it again, and have not received a single complaint as to the quality of our chloroform since, we were entitled to consider this matter effectually disposed of; but, to our great astonishment, we observe that this now almost forgotten story has been raked up again in your journal of last week, and in a shape so offensive and injurious to us, that if we could imagine we had ever done anything to deserve such treatment, or that you could possibly have any other reason for so treating us, we could arrive at no other conclusion, than that the notice in question was deliberately designed to destroy our credit as manufacturers."

In answer to the latter part of this statement, we have only to say, that we had no intention of doing anything of the sort. In point of fact, we made no allusion whatever to the firms who have addressed us, but simply stated, in a general way, the very facts which they themselves have admitted, viz., that the Scotch chloroform purified according to Dr. Gregory's process would not keep, but would soon become charged with chlorine and hydrochloric acid,—two gases which are exceedingly irritating and poisonous in their nature.

A reference to the above extract will show that not six months have elapsed since the Scotch makers were in the habit of preparing their chloroform in the faulty and unscientific manner already alluded to; and, notwithstanding that they might have called in as much of the noxious article as was within their reach, and have relied very much on the paper published by Dr. Christison in the *Monthly Medical Journal*, yet, as there are many country practitioners who have no opportunity of reading the one or hearing of the other, we considered it to be our duty to warn them against the use of an article possessed of such deadly poisonous properties as that to which we have referred. We chose the present moment for the publication of our caution, because we thought that it was the very time when the chloroform so made would have become charged with a large amount of noxious gases; and our sole object in directing attention to the subject was, to guard against the mischief which would infallibly arise from the indiscreet use of such an unwholesome article. Within our own experience, at one of the largest of the metropolitan hospitals, we have seen great danger occasioned by the employment of decomposed chloroform; and we can hardly trust ourselves to think what might have been the results if its use had fallen into the hands of those who are so far unaccustomed to the administration of chloroform as not to know the normal from the abnormal effects of it.

Finally, it is our duty to say, that if our caution has been worded in such a manner as to give offence to the Scotch chloroform-makers, we sincerely regret it; though we are compelled to admit, that the bombast of the Scotch writers on this very subject has been past all compass, and that it richly deserves the severest censure that can be passed upon it. The Edinburgh firms, however, inform us they have recalled from circulation Dr. Gregory's chloroform, and now manufacture the drug on more scientific principles. We do not for a moment question the truth of their statement, to which we take the earliest opportunity of giving every possible publicity.

BIBLIOGRAPHICAL NOTICES.

Prostitution in Relation to Public Health. By WILLIAM ACTON, late Surgeon to the Islington Dispensary. (Reprinted for private circulation.)

This pamphlet is the introductory chapter to the second edition of Mr. Acton's treatise on Syphilis, but the matter has appeared to him so important, that he has reprinted it for private circulation. Its purport is to point out that syphilis is a disease to be *prevented*, as cholera or typhus is. Without theorizing on the subject, or viewing it from some abstract point of morals, it is sufficient to mention, that Mr. Acton believes that syphilis is as prevalent now as it ever has been, and that, although it is easy to give a numerical statement of its frequency, it prevails among the lower classes, in our large towns, in a much larger proportion than 1 in 20. (a) When, therefore, we consider the after effect of this disease, the injuries it causes to the constitution, the loss of time and labour to the sufferer, the seeds of disease it transmits to the next generations, it cannot be doubted that Mr. Acton is quite justified in believing that preventive measures should be adopted with as much care as if we were dealing with small-pox or ague. We were not, indeed, prepared for the enormous amount of syphilis among our poor population. In five years, there were admitted into the Dreadnought hospital-ship 3703 patients out of a total of 13,081, or at the ratio of 28·3 per cent. (b) In one year, at St. Bartholomew's, among Mr. Lloyd's and Mr. Wormald's out-patients, the proportion was

(a) With respect to the Army Returns quoted at page 7, and which give 181 annual admittances into hospital for syphilis per 1000 men, it is possible that the same case may be returned as a fresh admission three or four times,—so that this ratio may be too great. Still the number is no doubt very large.

(b) The annual cost of syphilitic patients in the Dreadnought is nearly 1000*l.* per annum.

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even greater than this, being 2513 patients, out of a total of 5327 of all diseases. Of these 2513, every fourth was a woman or a *child*.

It is in vain to wait till an advanced morality can check this complaint; we must act with men and diseases as we find them; and Mr. Acton believes that the only mode of preventing syphilis is by providing immediate means to cure it, and thus to prevent its spreading. Syphilitic patients should receive the utmost attention in our public charities, and Lock Hospitals should be provided in greater abundance. Mr. Acton does not enter into the subject of registration and examination of prostitutes, although we should have been glad to know his opinion on this point. We doubt the propriety and efficacy of this plan, at any rate in large cities; but, if it be abandoned, then nothing remains to be done except to cure all cases as soon as possible, and to make well known to the poorer classes the terrible immediate and remote effects which this disease may bring upon them.

Mr. Acton has done good service by bringing this subject forward.

General Index to the first Thirty-three Volumes of the Medico-Chirurgical Transactions. Published by the Royal Medical and Chirurgical Society of London. London. 1851.

Those only who have themselves constructed an index to a large work can duly appreciate the labour the undertaking enforces; and those only who have had occasion frequently to refer to serial works, such as the "Transactions of the Royal Medical and Chirurgical Society," can fully appreciate the benefit conferred by that labour. An index, if well constructed, is useful not only to those who possess the volumes to which it refers, but also to all those who have access to those volumes in the libraries of others.

The usefulness of an index is just in proportion to its completeness; to the facilities it affords for ascertaining absolutely the presence in, or absence from, the volumes of any given article,—of any article on any given subject,—the names of the contributors, and of the articles communicated by each. Tried by this guage, the "Index of the First Thirty-three Volumes of the Medical and Chirurgical Society" is perfect. It is divided into four parts. In the first is an alphabetical list of the contributors; in the second, a list of the articles contained severally in each volume, with dates of their publication; in the third, a list of the engravings and woodcuts contained respectively in each volume; and, finally, a general index. The last constitutes the greater part of the volume, and its compilation must have involved very considerable labour. In it are arranged, under the name of each contributor, all the papers the author has had published in the "Transactions;" under the name of any given disease, &c., all the articles in which that disease is treated of; while in a different type from the former are given the names of authors to whom reference only is made.

The whole merit of constructing this index is due to Dr. Hennen; and deeply do we, in common, we are sure, with every member, not only of the Society but of the Profession, feel indebted to him. He has conferred a lasting benefit on us, and most heartily do we tender him our thanks. We rejoice that, as a trifling token of their sense of obligation, the Council of the Royal Medical and Chirurgical Society will present Dr. Hennen with a piece of plate.

A Small Contribution to the Great Exhibition of 1851. By Dr. J. C. H. Freund.

Under the above title, Dr. Freund has addressed a pamphlet of forty octavo pages to His Royal Highness Prince Albert. We may shortly state the general argument. The black death, in the reign of Edward III., the sweating sickness, the pestilences of 1483, 1485, 1506, 1517, 1528, and 1529, not having been caused by an influx of strangers to witness an Exhibition of the Industry of All Nations, *ergo* there need be no fear of any malarious result from the gathering in London for such a purpose during the present year. Having thus at once, by this royal road in argument, dispelled all fears of fever and pestilence, the author most cruelly dashes the cup of rejoicing from our lips, by advocating preventive measures, in the fear that London might perchance become a lazaretto and a charnel-house. He proposes, first, that the various foreign governments shall, when passports are applied for by persons about to visit London, demand a medical certificate that such person is free from any infectious disease. What alarming notions must our worthy doctor have of the general desire of foreigners to visit England during this year. He expects, so great will be the "draw," that typhus, measles, scarlatina, hooping-cough, small-pox, cow-pox, syphilis, aye, and even hydrophobia, will take up their beds and walk to Monsieur l'Ambassadeur, for permission to change the air in England. It is to be hoped that our august Prince Consort did not arrive at the 36th page ere he closed with good Dr. Freund; or we should have deeply sympathised with him under the shock which such anticipations must have caused. The preventive propositions of the Doctor are eight in number; but we shall only give the last, as worthy of record from its startling novelty.

"VIII. It might also prove useful to request the different Water Companies to give the most liberal supply in their power during these few months. Hotel-keepers, and those housekeepers who are in the habit of accommodating a large number of visiters, to be particularly reminded, in cases of infectious o serious illness occurring in their houses, to see that the necessary aid, medical and otherwise, be procured without the least possible delay."

We call the attention of those of our readers who let lodgings on a large scale to the above most salutary, important, and *novel* ideas.

The Surgical Anatomy of the Principal Regions of the Human Body. By Thomas Morton, late Fellow of the Royal College of Surgeons, &c.; and William Cadge, F.R.C.S., Assistant-Surgeon to University College Hospital, &c. Illustrated by Lithographic Plates and Wood Engravings. London. 1850.

This work was published in parts. Mr. Morton's object in preparing it was to present the student engaged in anatomical pursuits with a systematic plan by which he might proceed in his dissections, and, at the same time, to induce him to connect the knowledge he thus obtained of the structures of the principal regions of the human body with the study of the diseases that occur within their respective limits, and of the surgical operations which may be required for their relief. The general excellence and usefulness of the work to the practitioner, as well as to the student, so far as it had proceeded at Mr. Morton's death, was generally acknowledged. The commentary on the plates, illustrative of the surgical anatomy of the head, and neck, and upper limb, has been written by Mr. Cadge, and is equal in all respects to that of his accomplished and lamented predecessor on the perinæum and inferior extremity.

Guide de Médecin Practicien, ou Résumé Generale de Pathologie Interne et de Thérapeutique Appliquées. Par F. L. J. Valleix, Médecin de l'Hôpital St. Marguerite, &c. Tome II., III., IV. Second Edition. Paris. 1850-51.

The first volume of this excellent work was briefly noticed in the last volume of the *Medical Times*. The second, third, and fourth volumes have now reached us. The four volumes treat respectively of diseases of the respiratory, circulatory, digestive, genito-urinary, and nervous systems. This is unquestionably the most able and practical modern work on the practice of medicine with which we are acquainted. The first edition, in 10 volumes, was published in 1847. That a second edition should be called for in 1850, sufficiently attests the high opinion entertained of its value on the Continent. The matter in the present edition, although greater than that in the edition of 1847, is, by an alteration of type, condensed into five volumes. A large portion of each section is devoted to therapeutics. As it now stands, we can confidently recommend it to our readers as far in advance of any English work on the practice of medicine. We shall notice it at greater length on receiving the concluding volume.

Additional Observations on the Nitrate of Silver. By John Higginbottom, F.R.C.S., Eng.

Mr. Higginbottom has been very persevering in his attempt, for the last twenty-five years, to direct the attention of the Profession to the application of nitrate of silver in substance or strong solution (ʒj to water ʒj) to the skin in all cases of simple or specific inflammation, as in bruises, ulcers,

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erysipelas, or variola. We think that Mr. Higginbottom does not overrate its power under the circumstances; and although we must consider nitrate of silver rather a hobby of his, we must admit that he rides it with much discretion.

A Letter to the Right Honourable Lord Campbell, Lord Chief Justice of the Court of Queen's Bench, on the Clause respecting Chloroform in the proposed Prevention of Offences Bill. By JOHN SNOW, M.D. London. 1851.

We have but a few words to say about this excellent pamphlet. It is well timed, forcibly written, and fully bears out the views we have taken upon the same subject. The Author has our thanks for enlightening the public in general, and Lord Campbell in particular, on the use and abuse of chloroform; subjects upon which no man is a higher authority than Dr. Snow.

FOREIGN CORRESPONDENCE.

FRANCE.

THE INFLUENZA.

"IT is an ill wind," says the proverb, "which blows no body good." This sage maxim is now in course of full illustration; for never, since the memory of man, were the doctors here in such request. For two or three days last week, we had a sharp cutting wind—a regular mistral—alternating with excessive heat, sometimes accompanying it, so that you were frozen on one side of the street, and roasted on the other. The sudden change of temperature, or perhaps one of those mysteries which we are accustomed, in our ignorance of the true cause, to call "epidemic influence," has brought with it an anomalous kind of *grippe*, rheumatic fevers, and affections of the respiratory organs, innumerable in kind, and of divers intensities. By far more than half the population complains of "pains," is laid up with acute rheumatism, or goes about coughing and panting like a broken-winded horse.

The grippe, on the present occasion, appears to attack the trachea and upper portion of the bronchia chiefly, and the irritation is accompanied by a secretion of most tenacious mucus, which is excessively distressing. An alkali, combined with some ipecacuanha, ammonia, and tincture of hyoscyamus, appears to have more effect in relieving the distressing cough than any other remedy; but unfortunately, the French Pharmacopœia does not contain either of those useful formulæ, liquor potassæ or liquor ammoniæ acetatis.

ACUTE RHEUMATISM.

In the treatment of the acute rheumatism now so prevalent, many of the French practitioners have recourse to copious blood-letting. From what I have seen, I cannot say that the practice is judicious. The disease is certainly modified by the grippy constitution of the year; and evacuants have not the same effect as they would have under other circumstances. The patient is enfeebled, and the convalescence prolonged by active bleeding or purging, even in cases where the violence of the articular inflammation would seem to indicate the most active measures. Full doses of colchicum and opium have a more beneficial and just as rapid effect; but when the disease has been driven from the joints, it takes refuge in the muscular tendons, and the pain then becomes intolerable.

Vapour baths are of course in full request. They are furnished for a moderate sum,—about one and sixpence; but the apparatus is of a clumsy kind, and the administrators thereof all women. To be thus steamed by the fair sex is occasionally disagreeable for more reasons than one. A fat patient, for example, fainted in the bath, and tumbled right on the boiling pot. He was so fat and at the same time so slippery, that the woman was unable to lift him up, and the consequences might have been serious had not your correspondent happened to be in the adjoining room.

MESMERISM.

The mesmerists give out that they can cure acute articular rheumatism by merely looking at the patient; and I have met with more than one respectable person in the middle walks of society, who is fully convinced that this is not a *blague*. You can indeed have no idea of the extent to which mesmeric imposture is carried here. Almost every street has its consulting somnambulist, and they all thrive. Mesmeric exhibitions form part of the entertainment in all public shows, and have taken possession even of the streets. The exhibitor is generally a respectable-looking, well-dressed man, the somnambulist a female, whose eyes are bandaged. She sits on a chair in the centre of the crowd, and performs a number of wonders in the style of Robert Houdin, the *canaille* all the while attributing her tricks to some supernatural gift. These gentry, indeed, have now full swing, for the tribunals have decided that the exercise of somnambulism is legal; that is to say, that the pretence of second sight, prophecy, divination, &c., is not a false one. The modern Sibyl has therefore recommenced her trade, minus the practice of medicine, which the authorities are willing to leave to the initiated. Some of our first literary characters, I regret to say, openly patronise the delusions of mesmerism, and to them is mainly attributable the favour and indulgence shown to it by the public. Alexander Dumas, Eugene Sue, and Frederic Soulier are the main culprits in this line.

COMPULSORY MEDICINE.

The tribunals, as I just mentioned, are prepared to confine the practice of medicine to doctors. This is only fair, since the authorities decide that a doctor is bound to practise whether he will or no, and that for nothing. A curious example of this latter principle was furnished the other day in the *Canlieue*. A retired physician was called up at an unseasonable hour of the night to attend some one attacked by a sudden malady. The doctor's wife prudently answered that her husband was out; but the parties were not to be put off so easily. A complaint is made at the nearest *corps de garde*, which happened to be composed of national guards. The lieutenant at once orders out four men and a corporal, forces the doctor's door, seizes him in bed, and marches him off to the patient's abode, where he is compelled to give the necessary assistance. A few days afterwards, our ingenious *confrère*, resolved on not being done, sends in a bill of five francs to the *chef de poste* for a night visit, and, as no notice was taken of the demand, issues a summons against the lieutenant for "violation of domicile." The tribunal decided that the violation was justified by the urgency, and the doctor was put in for the summons as well as the visit. This seems queer law; but the authorities have not always the same chance, as the following anecdote, frequently told concerning the late Professor Marjolin, shows:—When Marjolin commenced life he was extremely poor—so much so, that he was unable to pay the rent of a wretched dissecting-room which he had hired in the neighbourhood of la Pitié. On the expiration of the first quarter, the bailiffs were sent in to seize for non-payment of rent. Marjolin received them with great courtesy, and dwelling in pompous terms on the fragments of decomposing mortality which composed his whole stock in trade, encouraged the law-limbs to "seize his effects." At the same time, he reminded the authorities that they were bound in law to preserve the said effects for a month "without degradation or injury, and to return them on offer of payment in the same state as when seized." It is unnecessary to say that the conditions were declined, and Marjolin allowed to continue for a few quarters more, until brighter days shone. The great surgeon used to tell this story himself with infinite glee.

GENERAL CORRESPONDENCE.

PSORIASIS.

[To the Editor of the Medical Times.]

SIR,—My attention has been drawn to the letters on Psoriasis, contained in your Number of the 22nd ult., and I am anxious to make known to your correspondent, "A Country Practitioner," as well as to your contributors, Drs. Hayne and Tunstall, through the medium of your valuable Journal, the manner in which I have for several years been in the habit of treating this troublesome disease. I do so the more readily, as it will be found confirmatory of the theory and treatment described by Dr. Tunstall; but, as it is more simple, it may on that account recommend itself to some of your numerous readers.

In Upper Bavaria, about 45 miles from Munich, a spring has existed for several centuries, to which tradition in the first place, and subsequently science, attributed great efficacy as a remedial agent in scrofulous and cutaneous diseases. Dr. Wetzlar's work on this water (Die Iod-und-Brom-haltige Adelheids Quelle zu Heilbrunn, in Ober Bayern,) "The Iodated and Bromated Adelheids Spring of Heilbrunn, in Upper Bavaria; 3rd edition, 1839," was presented to me by the author in 1842, and I was so much struck with his description of the water, and the numerous cases recorded, that I determined, when an opportunity should offer, to test its virtue in any of the diseases over which it was said to exert a sanitive influence. I first employed it in glandular affections with perfect success, and subsequently in cutaneous affections.

Out of numerous cases of psoriasis which I have treated with this water, I extract the following from my note-book:—Miss L., aged 18, of a fair complexion and phlegmatic temperament, has been afflicted with psoriasis almost from childhood, the disease occupying more or less the whole body, excepting the face and hands. In other respects her health good, with the exception of occasional attacks of indigestion. Had undergone a variety of treatment, which it is unnecessary to state.

After some preliminary treatment, I ordered her the Adelheids water, two doses daily, of from 4 to 6 ounces each, to be taken fasting, an interval of twenty minutes to half an hour between the doses, during which she was to take exercise in the open air, and half an hour after the last glass to breakfast. Further, to sponge the whole body, morning and evening, with the water, and to have a bath at 92° Fahrenheit three times a week, at first with a peck of bran, and subsequently with a quart and a half of *mutter lauge*, or lees of salt. A simple diet was also ordered, and the use of all green vegetables strictly forbidden.

Great comfort was derived from the bran bath, inasmuch as it allayed the itching, and imparted softness to the skin. The alkaline bath, however, and the external use of the Adelheid water, seemed at first to irritate the parts affected, and the eruption assumed a deep red colour, which continued for ten or twelve days. The blotches then became paler in colour, and more circumscribed in extent, till the end of the third week, when, the catamenia having appeared, the course was suspended for eight days. Considerable improvement had taken place in the meantime. The arms were nearly free from eruption, and in those parts where it still remained it had put on a more healthy appearance. A second course was now ordered, and continued until interrupted as before. The progress towards recovery was now rapid, and in every respect satisfactory; and, my patient having occasion to go to Schwalbach, I ordered her a course of the ferruginous water of that place, with the view of strengthening her digestive organs, and giving tone and energy to her general system. She returned at the end of a month totally free from the eruption, and has continued so up to April of last year, when I heard of her from a near relative.

I have since treated many inveterate cases of this disease, some in exactly the same manner, others by combining an aperient water, such as Homburg, with the Adelheid, and ordering the baths of that place at the same time; followed, as the case might indicate, by a course of Schwalbach, or the sulphurous baths of Aix-la-Chapelle. When the bowels are constipated, and no aperient mineral water can be procured, a teaspoonful of the sulphate of magnesia may be dissolved in the first dose of the Adelheid water, and increased if necessary.

As my translation, or rather digest, of Dr. Wetzlar's book may not be accessible to your readers, I may mention that, according to the best analysis of the Adelheid—that of M. Barruel—a litre, or 32 ounces, contains—muriate of soda, gr. 73·800; carbonate of soda, gr. 9·503; iodate of soda, gr. 1·828; along with carbonates of magnesia, lime, and iron, together with bromate and sulphate of soda. Hence it appears that the peculiar character of the water is formed by the combinations which soda forms with iodine and bromine, the whole being impregnated with carbonated hydrogen gas.

In all cases I should recommend the genuine water, as imported in glass bottles, to the spurious imitations of Struve and others. It may be had in London, at any of the mineral water depôts. I have trespassed so long on your valuable space, that I will not offer any remarks on the other affections in which I have found this water efficacious.

I am, &c.,

ALEXANDER M. DOWNIE, M.D.
Physician to the English Legation, &c., &c.
Frankfort-on-Maine.

[To the Editor of the Medical Times.]

SIR,—A letter lately appeared in your valuable Journal, signed "A Country Practitioner," requesting communications as to the available treatment of the above named disease. Having had a severe case under my care, I beg to record it among the many. The patient was completely covered with very deep fissures, and for many months unable to walk, or even to be dressed with her ordinary clothing. The remedies recommended were—alkalis, purgatives (saline,) alteratives (hydr. c. cretâ. hydriod. potass, in decoct. sarsap., &c.;) diuretics, tonics, combined with liq. potassæ, liq. arsenical., &c., internally. Warm baths, ablutions with warm water and soft soap, milk and warm water, &c. The following ointments were also applied externally:— U. iod. plumb., u. iod. sulph., u. hydr. nitr. mit., and ung. oxyd. zinci. Receiving no benefit from the foregoing treatment, I ordered the warm baths and external applications to be discontinued; also to discontinue the internal treatment, to persevere with the emollient ablutions, and take liq. hydriod. potass. et arsenici, gtt. viij. ter die ex aq. The parts were lubricated two or three times a day, or oftener if necessary, with fresh cream. In about four weeks a marked improvement was observable. She is still taking the drops, which were ordered on the 13th of July last, and the only parts affected now are the toes of each foot, the patient being able to follow her usual duties.

I am, &c.,

THOMAS STAINTHORPE, M.R.C.S. Eng., and L.A.C.
Hexham, Northumberland.

DIEFFENBACH'S OPERATION FOR UNUNITED FRACTURE.

[To the Editor of the Medical Times.]

SIR,—I find, in the *Medical Times* of February 22nd, at p. 220, a notice of the performance, by Mr. Stanley, of Dieffenbach's operation for pseudarthrosis. The article ends thus:—"We shall anxiously watch this case, the first operated upon in England, and trust, for the credit of what is really a simple affair, the result will be as successful as that described by Dr. Bushnan."

For the credit of the hospital to which I am surgeon, I am unwilling to allow this paragraph to remain uncorrected.

In the year 1849 I performed this operation in the South Devon and East Cornwall Hospital, at Plymouth, under the following circumstances:—

William Hender, a miner, aged 22 years, was admitted into the hospital on the 27th of September, 1848, with ununited fracture of the left thigh-bone, just below its middle. The fracture occurred in the early part of the preceding February. On admission, the fractured ends moved easily and smoothly on each other, without pain; the limb was much emaciated; his bodily health much enfeebled.

Some days having elapsed, I rubbed the ends *very roughly* against each other for about five minutes, and repeated the friction daily for about a fortnight, but, finding that no inflammatory action was induced, I caused a strong galvanic current to be passed through the part daily for three weeks.

When his health became established, I placed him under mercurial influence, and kept his gums tender for about a month.

Finding these remedies of no avail, I determined, with the sanction of my colleagues, Messrs. Derry and Whipple, to practise Dieffenbach's operation for pseudarthrosis. This was done in the spring of 1849, in the following manner:—

I thrust a sharp-pointed bistoury down to the bone, about an inch or less from the extremity of the upper fragment, making a wound in the skin of about an inch long. I applied a drill to the denuded bone, and, with a bow attached to it, rapidly drilled a hole, which passed through the medullary cavity, and, as far as expedient, into the opposite side of the bone. I then wedged a bone netting mesh, adapted to the size of the hole, into it by several smart blows with a hammer, and left the mesh projecting through the wound. I then repeated the same proceeding in the lower fragment. The limb was then placed in a convenient apparatus, which kept it quite immovable.

Considerable fever, and some inflammatory action, followed the operation, and the pegs were allowed to remain in the holes for nearly three weeks. They were then withdrawn. At that period there was a moderate swelling of the thigh, with pain when handled.

At the expiration of a month from this date, I was disappointed to find the pseudarthrosis as complete as ever. He was soon afterwards discharged from the hospital.

In 1850 he returned to it, and requested me to amputate his thigh, which I did on the 1st of April. The fractured ends were enclosed in a sort of capsule, and covered with a thin fibrous layer.

I enclose a piece of a thigh bone, which I drilled with the same instrument which I used for the operation, that you may judge of the size of the peg. I found it impossible to make any impression with a gimlet on a dry thigh bone, and therefore substituted a drill, which I consider a great improvement.

I am, &c., WM. JOSEPH SQUARE.
4, Cobourg-street, Plymouth.

STRIPED MUSCULAR FIBRES A NEW FORMATION IN TUMOURS.

[To the Editor of the Medical Times.]

SIR,—In your paper of the 22nd February, in the report of the Medical Society, is mentioned a case of fibrous tumour of the

uterus, attached to the orifice of each Fallopian tube, and of the size of a marble. Dr. Hassall stated that he could detect no difference between its structure and that of the walls of the uterus; he therefore concluded it to be "fibro-muscular;" and he remarks, that tumours of epithelium, bone, cartilage, &c., were met with, and he could see no reason why muscular tumours might not also be observed.

Now, in the first place, permit me to ask, What Dr. Hassall means under the name of fibro-muscular? Did he find the tumour composed only of muscular fibres, as they are to be found in the regular structure of the uterus? If so, we do not understand what he means by fibro-muscular, since we name the analogous tumours composed of epithelium or cartilage, merely epithelial or cartilaginous tumours. If the tumour was composed only of muscular fibres, then this would appear to be the first case of pathological tumours, composed and formed simply of muscular fibres.

But it is possible that the tumour, besides being a fibrous one, contained striped muscular fibres, as the result of a pathological new formation. If this be meant by Dr. Hassall, then we can only add in confirmation, that those tumours exist, and have been described by Rokitansky and Virchow.

Virchow (a) mentions a case of pathological new formation of striped muscular fibres, which occurred in a woman suffering for a long time from ovarian tumour. On the *post-mortem* examination there were found numerous cystic ovarian tumours, containing fluid. On the walls of the single cysts were smaller prominences, composed of the common cystoid texture. Between the cysts, however, was a harder, whitish, fibrous stroma, in which were embedded singular tubera of the size of a cherry to that of an apple, and some of them distinguished by a finely speckled appearance.

Under the microscope they showed numerous layers of striped muscular fibres, similar in form and thickness to those found in a young fœtus. They consisted of long, moderately large fibre cells, attenuated towards the end, having in general one long oval nucleus, and rather dark transverse stripes. The nuclei of the cells were large, having sometimes two, but in general only one, very large and brilliant nucleoli. The nuclei were always situated peripherically to the cell-contents; and on those spots the stripes could not always be distinctly seen. In almost every one the nucleus was in the centre of the longitudinal axis, and the cell seemed to be lacerated where it was not so. There were often observed fatty molecules in the fibre cells, which, by their increase, seemed to effect the destruction of the cell by fatty metamorphosis. Virchow proposes to name these tumours "myo-sarcoma."

Rokitansky (b) also mentions a tumour of the testis, where he found a development of striped muscular fibres under pathological conditions.

These two cases are probably the only ones hitherto described where striped muscular fibres have been discovered in tumours as a pathological new formation, and I, therefore, trust you will deem them worthy of notice in your valuable paper.

I am, &c., F. Funck, M.D.

25, St. James's-place, March, 1851.

INCIPIENT GONORRHŒA CURED BY THE GUM ELASTIC CATHETER.

[To the Editor of the Medical Times.]

Sir,—I hope you will consider the following worthy a place in your estimable journal, as, so far as I am aware, there is not a similar case on record.

About a week ago a young gentleman, who has been the victim of illicit intercourse times out of number, and who has suffered severely for his amorous folly, contracted a fresh gonorrhœa. On the following morning he came to me complaining of an intense itching in the perinæum, with *ardor urinæ*, and all the prominent symptoms of gonorrhœa. Upon examining the parts, I perceived the orifice of the urethra inflamed, and was able to squeeze from it a drop or two of the regular clappy matter. The itching and incessant desire to void his urine were perfectly intolerable, and he kept continually bawling "Oh, Doctor, can't you give me some relief?" It therefore occurred to me, in order to allay this irritation, to introduce an elastic gum catheter, which I did in a gentle manner. When the instrument came to the prostatic portion of the urethra, he was almost in ecstacies with the agreable titillation which it produced; he did not faint, as he was formerly accustomed to catheterism. When the instrument entered the bladder, I withdrew the stylette and allowed the urine to flow through the catheter.

After all the urine had passed, the desire to void more was excessive, and the irritation created by the instrument great. I kept the catheter in the urethra for about *fifteen minutes*, and then withdrew it very gently, when there came a great discharge of yellow matter with it, which continued for a few hours, during which time the pain and irritation in the urethra were severe. I told him to go home and get into a hot-bath, and gave him an anodyne draught to take directly, telling him that I would see him in the evening. When I next saw him, which was at eight o'clock in the evening of the same day, he was much better—itching and irritation had ceased some hours, neither had there been any discharge since I saw him, and he was able to void his urine without any pain or smarting whatever.

I merely ordered him a dose of calomel and jalap at night, to be followed on the following morning with half a pint of Cheltenham water. Next morning, had passed a good night; no discharge—in fact, quite well.

Remarks.—By some timid pathologists my treatment may be considered somewhat rash and injudicious; but have the results not fully verified the practice?

Here was a gonorrhœa presenting itself *eleven hours* after the act of coition, and we may, therefore, *à priori*, conclude that it offered to be of an aggravated type, having thus so early established itself; but, by the simple act of introducing the catheter, it is arrested in its virulent career, and, in a few hours afterwards, totally subsides and altogether disappears. In treating gonorrhœa, it had certainly never hitherto struck me to treat it, in the first instance, with catheterism, and what induced me in the present case to adopt it, was the urgent entreaty of the patient to have the intolerable itching removed; and it therefore occurred to me, that the irritation consequent upon introducing a catheter in the present inflamed state of the urethra, would effectually act as a counter-irritation, and probably allay the suffering of the patient, and the *sequela* of the case fully proved my ideas rational and correct; and, more than that, as it not only removed the itching but entirely cured the disease.

The old adage, "a stitch in time saves nine," is fully realised in the above case, as I have no doubt whatever that had the patient not presented himself when he did, but allowed the disease to run on for a day or two longer, my treatment would have very probably proved ineffectual. As this is the first case in which I have attempted the above practice, I am not, consequently, able to pronounce it a sovereign cure in all similar cases, but the good results from it in this instance were so instantaneous and permanent, that I can only say that I intend having recourse in all similar cases, and can confidently recommend it to the notice of my professional brethren. I am, Sir, &c., H. Hastings, M.D.

Cambray, Cheltenham, March 1, 1851.

SELF-SUPPORTING DISPENSARIES.

[To the Editor of the Medical Times.]

Sir,—My engagements since the publication of your number for February 15 have hitherto prevented my replying sooner to your correspondents, W. H. M. and Mr. J. Armitage Pearson, respecting "Self-supporting," or more properly "Provident Dispensaries;" and, as the Northampton Royal Victoria Dispensary, with which I am connected, is one of some importance, I have thought that a few statements and remarks from me may be acceptable to these gentlemen.

W. H. M. desires a copy of rules. I shall have pleasure in supplying him with our report for the last year on his application to me, which will afford him information as to the working of the system in this town, which, I may remark, on the whole works well.

Our Committee are anxious to exclude all who are not the fit recipients of its benefits; that is, whose circumstances are such as to enable them to pay for medical attendance, &c., in the usual manner, and are annually striking off the names of such; there will be, notwithstanding, (however great such vigilance,) parties on the books who ought not to be there; consequently, so far it does injury to our fellow-practitioners, as well as to the officers themselves.

I shall not enter into the matter of remuneration further than hereafter to state the profit accruing to the medical staff on the average, leaving your readers to judge for themselves. I may just observe a vast amount of labour has to be performed, of which no one but those engaged in it can form an adequate idea; great want of consideration on the part of the patients too frequently mani-

(a) "Verhandlungen der Physikalisch-Medicinischen Gesellschaft zu Wurzburg," heft 6, p. 189, published by Virchow and Kölliker, and kindly forwarded to me by W. Bowman, Esq., of King's College.

(b) "Zeitschrift der Aerzte zu Wien, 1849," Jahrgang v. p. 391.

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fested; and, were it not for much higher, dignified, and nobler motives on the part of the medical officers than the mere matter of gain, few would be found to give up so much time, labour, and toil.

I am decidedly of opinion, that, if provident dispensaries are based on sound and judicious principles, having especial regard to the admission of suitable objects, they are capable of affording great moral, social, and public benefit, inasmuch as they lessen the poor-rates, and induce industrial and independent habits. I have myself met with many instances where the members, but for their admission, and during sickness, would have applied to the Union medical officer, and, as a matter of course, parish relief would have followed, either in the form of money allowance or in the granting of money orders, &c. So far, then, is the rate-payer relieved, and the poor doctor too, whose remuneration, alas! alas! is anything but remunerative, and whose toils and labours need no addition. The member thus continues still independent, one of the main features of these institutions being to produce independency. Again, by these means medical men are relieved of many a bad debt, which they otherwise would have; and I am surprised this point is not more clearly perceived. A considerable degree of jealousy seems to exist with our neighbours, but I confess I think without reason, except it be on the ground of improper admissions.

I am anxious, Sir, to occupy as little space in your columns as possible, should you think these remarks in reply worthy insertion I now come more into detail.

9248 cases have been attended during the last year, 1850; and, after deducting the payments for drugs, &c., leaves a profit of 2¼d. and a fraction per case.

184 midwifery cases have been attended at 10s. per case. If these be added to the above, they would yield about 5d. per case. The profits of last year are less than heretofore, a fact which needs explanation. Our drug accounts were very heavy, as a large order was given not long before the expiration of the year, and was added to the current year's liabilities, necessarily diminishing the rate of profit, which would otherwise have been rather more than 6d. per case, as in the year 1849, when it was 6½d. and a fraction, exclusive of labour fees.

The weekly payment for a family is 2d., or 8d. monthly; persons under 14 years, pay 4d.; servants, 2s. 6d. half yearly.

If sick at the time of entrance, all persons pay 5s. in addition to the other payments.

Labour fees 5s., paid three months prior to confinement, the member having been admitted and keeping up her payments six months previously. The remaining 5s. is paid out of the honorary fund, which constitutes one, and the free members' payments the other fund.

With regard to subscribers' privilege, there is no direct advantage, the object being to do good to those who cannot secure the attention they require during sickness otherwise.

One word with respect to fines. Members pay 1d. per week if they do not keep up their payments; five weeks in arrear subjects them to exclusion. Apologising for the length of this communication, I am, Sir, &c., B. SPURGIN.

Sheep-street, Northampton.

ON THE RELATION OF THE EXANTHEMATA.

[To the Editor of the Medical Times.]

SIR,—My object in addressing you was twofold: 1st. To endeavour to correct what appeared to me some errors into which a great authority had fallen; and 2nd. To elicit, if possible, some great principle to guide our Profession to a true pathological faith on the subjects of variola and vaccinia.

I need not say how complete was my disappointment on reading Dr. Gregory's reply to Dr. Knox, for it contained nothing of a conclusive or satisfactory nature as to the point at issue, viz., the identity or non-identity of variola and vaccinia.

From men whose opportunities of investigation are very great, and whose position alone gives weight to their words, we naturally look for accuracy of statement and precision of expression. In Dr. Gregory's first paper we read, "It requires no great stretch of the imagination to conceive that the primary exanthematic miasm, so largely disseminated throughout the animal kingdom, is composed of two or three ingredients, which, variously combined, appear in the several forms of small-pox, cow-pox, chicken-pox, sheep-pox, and *equine grease*." In his reply to Dr. Knox, he introduces, for my "special edification," a quotation containing a statement, which he says "is quite correct." I suppose I am at liberty to ask Dr. Gregory whether he meant to convey the idea, that he, by his own experience, is enabled to confirm the observations of Professor Hering, that "there is a *peculiar* vesicular disease affecting the horse," (not "equine grease,") "which is capable of communicating the cow-pock either to the cow or directly to man." That decisive, "it is quite correct," seems to signify private experimental knowledge of the fact; and yet, when "equine grease" and "a peculiar vesicular disease" have been spoken of synonymously, it becomes rather difficult to arrive at the Doctor's real meaning from his *peculiar* mode of expression.

If, however, the *pferdermarke* has been communicable to man and the cow in two instances only under Professor Hering, it is possible that these cases may rank with those of Sacco, which did not bear experimental inquiry in this country with the same results as in the south of Europe. Dr. Gregory evades the "equine grease" part of his story by means of a "peculiar vesicular disease," but does not condescend to notice the more direct experiments of Messrs. Ceely and Marson on the variola ovina, which still completely negative a material portion of his paper on the Exanthemata.

Allow me, Sir, to say, that I am no more the *fidus* Achates of Dr. Knox than of Dr. Gregory as individuals; but, as men of science and lovers of truth, I am their faithful servant, though equally unknown to both.

From the oracular style of the first paper on the Relation of the Exanthemata I was led to hope, by being a little inquisitive (not judicial) that the presiding deity of the Small-pox Hospital might further enlighten us on the "primary exanthematic miasm;" but, like the Proteus of old, he appears not to like being troubled by inquisitive mortals; so that the lion character, which exhibited itself at first, is now changed to that of a fish (with abundance of feed and careless of bait) gliding with satisfaction and comfort in its own element, working its way against the stream, occasionally leaping an obstacle, until the time shall come and the place reached as the fitting repository for the future offspring.

We want neither allegory nor myths, but experiments and facts; we want nor fictions nor prophecies, but truth and reason.

Many of the mysteries in the laboratory of nature have yielded to the scrutiny of experiment, and have been solved by the efforts of reason, yet many still remain for the industry of man to fathom; but they will be ever stubborn while they have no better exertions made to unravel them than are to be found in the narrative of fiction or in oracular expressions.

The original subject of inquiry still remains in as much mystery as on the morning of the 18th of January last; if possible, indeed, it is more mystified than before.

There are, however, two little facts upon which I cannot refrain from commenting. 1st. The deterioration of the cow-pox matter; and 2ndly. Its spontaneous reproduction. They form a theme of great interest, and, if well worked out, calculated to lead to the most practical and extensive application, not only in reference to small-pox, but to all diseases of the contagious and epidemic kind. I am, &c., INQUISITOR.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Mr. Hodgson having taken the chair, delivered the following address:—

Gentlemen,—Before I proceed to the business of the evening I shall take the liberty of craving your indulgence for a few minutes, while I make a few remarks on this the first occasion of my occupying this chair.

I regard the situation in which I find myself placed by your kindness, as one of the greatest honours that could be conferred on me. How can I do otherwise, when I look around me and see many of the most illustrious members in the Profession who have occupied the post I now have the honour to fill.

Gentlemen, I have for very many years felt the deepest interest in this Society. It was my fate to be very early in life connected with it; indeed, I believe I am one of the oldest members of it. I became a member soon after its first institution, and well remember this chair being occupied by Marcet, Yellowley, and others, and around me I saw Babington, Abernethy, and other distinguished men now no more.

These recollections would excite in me deep sorrow, were it not that I see their places filled by names distinguished in this day as the brightest ornaments in the Profession. It was my lot soon

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after I became a member to be elected on the Council; and I was engaged in preparing the first catalogue of the Society with the late Mr. Samuel Cooper.

These were great honours, and they filled me with deep feeling towards the Society, and, though circumstances removed me, and I have not for many years been residing in London, yet I have not felt the less interest in its proceedings.

Gentlemen, I regard the post in which you have now placed me not merely as a compliment to myself, which I fully appreciate, but also to all those who practise in the provinces; and I am sure all my brethren there will look at the honour conferred on me with reference to themselves; they will feel that the Profession in the provinces is not overlooked.

Entering on my new office, I feel I shall invite comparison with that talented and enlightened physician who preceded me; nevertheless, I promise you my best exertions, and all the means in my power shall be used for the interests of the Society, which I believe to be one of the most useful, valuable, and instructive medical societies in the world. Moreover, I know, gentlemen, my duties as president are not confined to this room. There are many others which engage the attention of its president elsewhere. Some of these I am not well acquainted with; but, with the kindness of my colleagues, many of whom have a more extended experience in their duties, I hope effectually to serve the interests of the Society, and to show, by the end of the year, that the Medical and Chirurgical has not fallen off.

A paper by Dr. Ogier Ward,

ON THE COMPRESSION OF THE SKULL AT BIRTH,

was read, in which the author sought to prove that the compression of the infant's skull which takes place during parturition, besides the evidences of asphyxia which it causes at once, when the pressure is very great, also induces consecutive and remote effects, inducing paralysis, epilepsy, convulsive fits, and insanity, and he even hinted that idiocy might also be thus caused, as there was only one at the asylum at Highgate whose skull was not deformed. The compression was most marked in first labours, or where the pelvis was distorted, or the child born at the full period, with the bones nearly ossified. Dr. Ward believes, indeed, that instead of being an occasional event, it almost invariably occurs during the progress of the birth; but that in the great majority of instances the deformity is removed almost immediately by the first cry of the infant, if not even previously, at the moment of its expulsion from the vagina, by the elasticity of the cranial bones. In those cases where the deformity continues for an indefinite period, it may produce the effects above described. Great tendency to flatulence was one of the most common signs of the effects of the compression on the brain. The treatment should be directed to excite the cerebral circulation, so that the overlapping bones may be expanded, and for this purpose the author recommended the free use of the birch, which, he said, might be continued for hours without danger. The crying of the child caused a flow of blood to the head, and thus effected the intended object. Foville's experience as to peculiar head-dresses and tight bandaging the head, in childhood, causing insanity, was appealed to as supporting his views.

In the course of the discussion, Dr. Webster confirmed the statement respecting Foville. Dr. Copland had drawn attention to the effects of this compression of the skull many years ago, and especially to two varieties, which he had termed "diamond shaped." In one of these, one side of the head was thrust up over the other, in the other it was thrust forwards. In one excellent example of this, in a child eighteen months old, the mother had previously borne four or five children, so that the deformity could not have been from pelvic distortion. These varieties are sometimes met with after puberty, but rarely, and are then connected with epilepsy. By Mr. Cæsar Hawkins the suggestion was thrown out, that the deformity of the skull, instead of being caused by compression at birth, might be induced by the pressure of the uterine walls during pregnancy; but this opinion was at once denied by Dr. Robert Lee, who asked how that could occur, when the child was floating in the liquor amnii. Neither did he (Dr. Lee) believe that the compression, during the birth of the child, produced any ultimate ill effects. He thought that the malformation, when it existed, did so long before labour commenced. Mr. Cæsar Hawkins gave a case of the diamond-shaped head, which was gradually, but certainly cured by the natural efforts.

A paper by Dr. Pearce was next read, descriptive of a case of the chylo-serous urine, occurring in the person of an Indo-Briton, but only while suckling, and ceasing when the child was weaned. The urine was ultimately analysed; its specific gravity was 1013; neither caseine, pus, nor the phosphates were present, the milky appearance being due to albumen and animal fat. Dr. Bence Jones commented on the chemical diagnoses given in the paper, between the chylo-serous urine and urine to which milk had been added for malingering purposes.

The report of both papers and of the discussion will be given at greater length next week.

MEDICAL SOCIETY OF LONDON

Dr. J. R. Bennett, President, in the Chair.

CONGENITAL MALFORMATION OF THE BLADDER, &c.

Mr. T. H. Wakley exhibited a patient named P——, an inmate of the Royal Free Hospital, the subject of monstrous or malformed genito-urinary organs. Previously to showing the case, he said the man had been sent to the hospital by Mr. Eaton, surgeon, of Grantham, Lincolnshire, in the hope that surgical assistance might afford the poor fellow some relief. He (Mr. T. Wakley) had carefully and repeatedly examined the parts, and, upon mature deliberation, considered that surgical interference was justifiable, and he had brought the patient there that evening with a view to elicit an opinion upon the subject from the fellows then present, as well as to show them so novel and distressing a case. He had heard that a malformed bladder had been operated upon successfully by a surgeon at Berlin, but the malformation in that case, as far as he could ascertain, was of a very different character; the arrest of development occurring in the mesial line just over the pubes, the surgeon had merely to bring the lips of the fissure together; but, in the case to be shown to the Society, there was no cavity to enclose. He had made every inquiry respecting the Berlin case, but could not obtain any satisfactory information; however, he believed it to be as he had stated, and that surgeons had not yet attempted any surgical alleviation in such cases. Many cases of the kind which had been met with in practice had been described, and the late Mr. Earle had devoted considerable attention to this class of malformations, with a view to their mechanical relief. Writers had not even discussed the merits of operative procedure in these cases, but it must be remembered that reparative surgery had been of late years making rapid strides, and was so successful in its results, that surgeons were certainly authorised to pause, even in so bad a case as the present, before they left the patient to the comparatively small amount of assistance which he received from instrumental means.

The man was then introduced. He appeared to be about twenty-five years of age. The parts having been uncovered,—

Mr. T. Wakley, in continuation, said: The Society would observe that no umbilicus existed; the abdominal muscles were separated at their lower part, through which appeared the posterior wall of the bladder with its muscular and mucous coats, forming a highly vascular tumour, very painful to the touch, and readily bleeding. The orifices of the ureters could be distinctly seen; the urine was constantly dribbling from them, and flowed over the rudimentary penis, producing very severe excoriation of the parts. The rudimentary sexual organ was about one inch in length, and closely applied to the inferior part of the tumour, which, when depressed, displayed complete epispadias, the urethra being merely a groove. The opening of the seminal ducts could be seen at the root of this rudimentary penis; upon each side is a prominence corresponding with the partially descended testes. The parts were partly covered with hair; indeed, every symptom of manhood existed to the discomfort of the patient, sexual desire being as strong as if the parts were in a healthy state. Mr. T. Wakley, then (the patient himself being present, and standing close by him,) read quotations from Mr. M'Whinnie's pamphlet, giving the description of the dissection of a malformation of the genito-urinary organs, which very nearly corresponded with that of the man then before the Society. He thought that that dissection strongly favoured the probability of the success of an operation. In the case exhibited, as far as it was possible to judge from external examination, the pubic symphysis was complete. The majority of writers state that in these malformations the pubic bones are widely separated, and only connected by ligamentous bands. In this case he certainly considered the pubic bones to be in apposition, and firmly united. The

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operation which he proposed to perform was by transplanting from the neighbouring integument of the abdomen a natural covering, to protect the painful and highly vascular urinary tumour. This he would attempt to accomplish in the following manner:—Two flaps of skin to be dissected up from the integument in immediate contact with the lateral edges of the tumour, leaving a broad root still attached to the skin immediately over it. These portions of skin should then be twisted over an expanding silver shield, modelled so as to cover the tumour without pressing upon it. This instrument would be useful; first, in preventing adhesions between the posterior wall of the bladder and the transplanted skin; secondly, in protecting the latter from contact with the poisonous urine; thirdly, in allowing the lateral edges of skin to be brought together by sutures over the plate. Of course every attempt should be made to favour union, both in the middle line, and also at the lateral edges of the tumour, from above downwards; and, as union progressed, the silver shield would be lowered and diminished in size, until only an opening should be left for the passage of the urine at the root of the newly-formed bladder; incontinence of urine would then be the only discomfort to the patient. Mr. T. Wakley said the operation would of course be performed by degrees, and many difficulties must be encountered. The enemy to the successful issue of the operation would be the urine; but he thought the silver shield would combat that evil. On Monday the man would proceed home, and make arrangements for his return to the hospital, as he was most anxious an operation should be attempted. Mr. T. Wakley, in conclusion, called attention to the apparatus which had been constructed to catch the dribbling urine, and protect the parts from injury. The instrument was a modification of that invented by the late Mr. Earle, the difference being, instead of an oval plate, held in its place by hernial springs, a zinc plate, accurately fitted to the man's body around the malformed parts, especially in the perinæal portion, thus requiring only a broad waistband to retain it in its place. A galvanised India-rubber tube passes from the most dependent part of the zinc plate to the ankle, according to Mr. M'Whinnie's method. For the manufacture of the apparatus, the cast on the table had been made, the zinc plate being worked on the cast. He (Mr. T. Wakley) trusted that he should at some future day, not very far distant, again introduce the patient to the notice of the Society, when the result of the operation would be seen, whether successful or otherwise.

The general impression among the fellows seemed to be, that no surgical operation should be attempted. It would be too dangerous.

MEDICAL NEWS.

Royal Medical and Chirurgical Society.—The following gentlemen have been elected fellows of this Society:—Mr. Cadge, of University College, and Huntley-street, Bedford-square; Dr. Jenner, Professor of Pathology in University College and Albany-street; Mr. F. J. Mouat, of Calcutta; Dr. Goodfellow, of the Middlesex Hospital and Russell-square; Mr. Nicholls, of Savile-row; Dr. Power, of Queen-street, May Fair; and Mr. Robinson, of Camberwell.

Officers and Councillors of the Medical Society of London, for 1851-2.—President—E. W. Murphy, M.D. Vice-Presidents—Francis Hird, Esq.; J. F. Clarke, Esq.; E. Lankester, Esq., M.D., F.R.S.; Forbes Winslow, M.D. Treasurer—Henry Hancock, Esq. Secretaries in Ordinary—C. H. F. Routh, M.D.; C. Cogswell, M.D. Secretary for Foreign Correspondence—T. Davidson, M.D. Councillors—E. Headland, Esq.; G. Pilcher, Esq.; W. C. Dendy, Esq.; J. Middleton, Esq.; S. Stedman, Esq.; S. W. J. Merriman, M.D.; W. Smiles, M.D.; F. Sibson, M.D.; J. R. Bennett, M.D.; H. H. Walton, Esq.; J. Gay, Esq.; F. Nunn, Esq.; A. B. Garrod, M.D.; R. Druitt, Esq.; J. S. Bushnan, M.D.; W. Coulson, Esq.; J. W. Woodfall, M.D.; A. P. Stewart, M.D.; J. H. Bennett, M.D.; E. J. Tilt, M.D. Orator—E. Canton, Esq. Fothergillian Medallists—Best essay on Phthisis, gold medal: Dr. Richard Payne Cotton, of 4, Bolton-street, Piccadilly. 2. For the best essay on Uterine Hæmorrhage, gold medal. Richard Hodges, Esq., F.R.C.S., Rochfort, Essex. 3. For special services rendered to the Society, silver medal: Henry Hancock, Esq., 59, Harley-street.

The Levee.—The following members of the Profession attended Her Majesty's second levee of the season:—Sir David Davies, Dr. Billing, Dr. Latham, Mr. Edwin Saunders, and Mr. Borlase Childs. The following presentations took place:—Dr. Bremner by Colonel Parke, C.B.; Dr. Coote, by the Earl of Devon; Dr. G. J. Shaw, by Lord Broughton; and Mr. Blakeney, staff-surgeon, by Lord Gough.

Naval Appointments.—Surgeon James Salmon (1840,) re-appointed to the Prince Regent; Assistant-Surgeon Wm. Macleod, M.D., re-appointed to the Prince Regent. Surgeons Alfred Baker Cutfield (1840) to the Penelope; John A. Mould (1838) to the Ceylon receiving-ship at Malta. Assistant-Surgeons Michael Walling (1846) to the Penelope; John T. Robinson, M.D., (1845,) additional of the Hastings, 72, flag-ship, on the East Indies Station, to the Rhadamanthus steam troop-ship at Sheerness; James W. Elliott (1848), formerly of the Oberon steam-vessel, to the Prince Regent, 90, at Portsmouth.

Military Appointments.—Royal Artillery: Assistant-surgeon Briscoe, M.D., is to do duty with the Horse Artillery in Ireland, in the room of Assistant-surgeon Howard, who has been withdrawn from that command. 99th Regiment: Assistant-surgeon Carroll is under orders to embark for the head quarters at Van Diemen's Land.

Obituary.—Assistant-Surgeon Stuart, of the Cape Mounted Rifles, killed in action with Sandilli's Caffres, at the Keiskamma River, while under the command of Colonel Mackinnon. Lately, off the coast of Africa, Mr. Symonds, Assistant-Surgeon of the Kingfisher. At Sierra Leone, Staff-Assistant-Surgeon Watson. Staff-Surgeon Ford, at Cephalonia, Brownson, 2nd West India Regiment. Assistant-Surgeon Reid, 4th Dragoons, Dublin. Assistant-Surgeon Ligertwood, retired on full pay, 3rd Veteran Battalion. On the 9th inst., Mr. Thomas Parker, aged 68, M.R.C.S., and one of the senior apprentices of the late John Abernethy, Esq. Died on the 12th inst., at Bentinck-terrace, Regent's-park, John James Bowie, M.D., aged 31. Dr. Bowie was the son of Capt. Bowie, R.N. He took his degree in medicine at Edinburgh in the year 1841, and afterwards passed some considerable time on the Continent. Several years since he was elected one of the assistant physicians of the Hospital for Consumption, which office he resigned about a year ago, on account of being seized with the disease which eventually terminated his existence. This disease proved to be phthisis pulmonalis, though it assumed a different character in its commencement. Dr. Bowie was a well-informed physician, and a most amiable man. He had much taste in the Fine Arts, and displayed, both in drawing and oil painting, no mean capacity. In his medical career, so prematurely terminated, he gave great promise of success, being universally respected and esteemed, never deviating, even in the smallest things, from the standard of professional honour.

Mr. George Elin, late House Surgeon of King's College Hospital, has been appointed House Surgeon to the Birmingham General Hospital.

Dr. Hutton has been appointed Physician-Accoucheur to the General Lying-in Hospital in the York-road, in the room of Dr. Reid, resigned.

Our talented correspondent, Mr. Harvey Holl, has been appointed resident medical officer at the York Infirmary.

There is a vacancy in the office of Physician to the Islington Dispensary, and of Resident Medical Officer to the Eastern Dispensary, Great Alie-street, Goodman's-fields. Mr. Lonsdale is the only candidate for the new surgeoncy to the Royal Orthopædic Hospital: he is, of course, sure of success.

Newton Abbott Board of Guardians.—The principal business at a recent meeting of the board was a discussion, introduced by Mr. Thomas, in reference to the medical officers. He stated that Mr. Creed had on a previous occasion proposed that the extras in cases of accidents, performing operations, &c., should be abolished, and the salary placed on a scale which should include the extra payments. He thought that by so doing the board would also give up that supervision which it now exercised; and he therefore proposed that extras be continued, subject to certain provisions and regulations, which he detailed. After a short discussion, this motion was negatived.

Metropolitan Sewers.—The Report of the Commissioners of Sewers, just published by order of Parliament, states that their objects in effecting the drainage of the metropolis, are "to relieve the River Thames, from Galleon's Reach upwards, from sewage; to carry the sewers as much as possible along public streets and places; to make them of dimensions and at gradients insuring an unintermittent flow, and preventing the penning up of sewage; to secure good house drainage, and self-cleansing street drainage; to dispense, as far as possible, with periodical flushing; to obtain the largest practicable amount of effective drainage without artificial means; to resort to steam power only when indispensable; and to provide means for the eventual abolition of all open sewers, ditches, and cesspools."

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CHELTENHAM.—The members of the Cheltenham Medical Book Society have just presented their honorary secretary with a handsome silver Etruscan claret jug, bearing the following inscription:—"Presented to William Philpot Brookes, Esq., M.D., by the members of the Cheltenham Medical Book Society, as a token of respect and esteem for his valuable services as their honorary secretary, 1851."

LIVERPOOL COLLEGE OF PRACTICAL CHEMISTRY.—The next session of this Institution begins on the 4th of March.

HOSPITALS.—The select vestry of Liverpool has granted 50*l.* per annum to the Southern Hospital for the pauper patients it receives who get injuries when working at the docks. Mr. Willmer gave notice, soon after the grant was made, that at the next meeting of the vestry he would move, that this grant be for six months; and also that the grant of 200 guineas to the Northern Hospital be not continued after the expiration of twelve months.

MARYLEBONE BOARD OF GUARDIANS.—Dr. M'Creight has addressed the following letter to the Board of Guardians:—"The proceedings at your Board on Friday last having been extensively circulated by the public papers, I desire to draw your attention for a few minutes to the case of Ellen Young. The facts are simply these: On Thursday, the 13th of February, a medical order was presented to me; on that day I visited her at her lodgings, and prescribed for her; on the next day, Friday, I again visited and prescribed for her; she was sitting up and dressed, and wished to be admitted into the workhouse. I directed her how to apply to gain admission. On Saturday I did not consider it requisite to call; but on that evening, about ten o'clock, I received a note from Mr. Barker, not requesting me to see her, but stating that he had seen her, and requesting that a chair might be sent to convey her to the workhouse. The woman died suddenly and unexpectedly, about eleven o'clock on the same evening. I desire to state most distinctly, that no application of any kind was made to me to visit her on Saturday. From the first application for medical assistance to the time of her death, a period of sixty hours elapsed, and during that time I visited her twice. Her case was one of a chronic and incurable nature, characterised by an absence of all acute symptoms. I could not admit her into the infirmary without disobeying the printed instructions of the Board, which only authorise me to admit such cases as would be greatly benefited in a medical point of view. For the last three months, during which time I have been performing temporary duty, you are well aware that the infirmary has been crowded to excess. It still remains so; and it has been the most painful and irksome part of my duty to refuse admission to patients on that account. In conclusion, permit me to state, that I want neither the mercy nor commiseration of your Board, or of any member of it. Though I am aware, from the peculiar constitution of the Board, I could neither expect courteous or gentleman-like treatment, still I confess I expected fair play; in this I need scarcely state that I have been disappointed.—I remain your obedient servant, W. W. M'CREIGHT, M.D."

THE new corps for Africa, the Gold Coast corps, is to have but one medical officer, an assistant-surgeon, at 7s. 6d. a day.

CHOLERA has broken out with great severity in the island of Hainan, in China, among the insurgent Chinese, and, after causing great destruction, has appeared on the main land, in the south-west of the Quang-tong provinces. It is also very prevalent in Bombay. About 2500, mostly natives, died of it within two months. During January close on 3000 deaths occurred in the island, of which 1850 were caused by the pestilence.

THE INFLUENZA.—It is stated that there are 40,000 persons confined to their apartments in Paris with influenza, independent of those in the hospitals.

QUARANTINE.—A Parliamentary paper has been just issued, on the motion of Mr. Hume, being an addition to a return of the expenses of quarantine, distinguishing the salary and expenses of the Superintendent-General and other expenses, as well as those of the several quarantine stations, and the scale of fees payable to the officers. This return refers solely to the more distant colonies. The Health Officers of Nova Scotia are paid by fees, and those employed at Halifax and Picton alone appear to have received any remuneration. At Sydney, New South Wales, the Health Officer has a salary of 300*l.* a year; and, while vessels are detained in quarantine, Surgeons-Superintendent have 20s. a day, and double rations if in emigrant ships; assistant-surgeons 7s. 6d. daily. At Melbourne, Surgeons-Superintendent have 30s. per diem. The Manlius paid 146*l.* 10s. in gratuities to surgeons while in quarantine, besides other expenses, amounting to 1,357*l.* 10s. 11d. The vessel was eight months in quarantine in 1842. No expense was incurred during the last ten years in Van Diemen's Land or New Zealand for quarantine.

THE Glasgow Town Council have adopted a proposal for the improvement and more frequent publication of the Mortality Tables of that city. The expense of obtaining the additional information will not be more than 40*l.* per annum.

PREMATURE LABOUR.—As a means of inducing premature labour, Mr. Baker, of Shirley, near Southampton, uses with much success a species of trocar, which, by the aid of the speculum, he introduces through the os uteri. He says, "the liquor amnii escapes through the canula as freely as from a tapped hydrocele." The tube, fourteen inches long, is introduced unarmed, a spring protrudes a cutting instrument, which, having punctured the membrane, is immediately withdrawn.

GROSS QUACKERY.—The trial at Swansea, last week, of Charles H. Ackerly, a retired lieutenant in the Navy, was a most singular investigation. The prisoner is the same person who is well known in London, as "Captain Ackerly," for his attendance and demonstrative conduct at all sorts of meetings: he is a man of position—a magistrate for Worcestershire—and of education, but an enthusiast of the most singularly ill-balanced mind. He stood indicted for causing, by quack treatment, the death of Matthew Tingle, a collier, who had been scorched in a mining explosion at Aberdare. On the 12th December, the prisoner came to the house of Tingle, and stated that he was a "doctor from Lancashire," who had orders from the owner of the mine to treat the suffering collier medically. Tingle was then in the dangerous stage which follows extensive scorching that has removed the skin off a large portion of the body; but the regular doctor of the mining-works considered that he "had a chance." The prisoner ordered all the plasters to be removed, so as to expose the raw surface to the air; he placed a lamp of peculiar construction under the man's nose, to make him breathe hot air, and had his limbs smartly agitated by attendants. The collier died in a few hours afterwards; and Dr. Davies swore to his belief, that this treatment, especially the exposure of the wounds and the agitation of the limbs, *accelerated* the death, though he could not be sure that the patient would otherwise have lived. The counsel for the Crown admitted that the prisoner's motive was good; but urged, that by acting with "ignorance, or gross negligence, or misconduct," he had, through accelerating the death, been guilty of manslaughter. The prisoner conducted his own defence: at his side was a lamp of his own "invention," and before him was a pile of antique folios and quartos. He spoke with fluency, and in an effective manner, for an hour and a half, and grounded his defence on the most ludicrous mixture of the exploded physical dogmata of the alchemists and schoolmen of the ante-Baconian times, with misinterpreted modern science and Biblical lore. He started from the time-worn axiom that "Nature abhors a vacuum;" the amusing anatomical specialty, that there is "a circulation of air between the periosteum and the bones;" and the droll assumption that by means of his lamp he can "remove the atmospheric tonnage" from the human surface. These points he worked up with quotations from his old authors and from the Bible, and with some remarks of really striking sense, into an extraordinary web of defence. At the time when the colleges were removed from Cricklade to Oxford, (by Alfred the Great,) there was "a putrefaction in literature;" and even now "the treatment of disease goes on rules laid down prior to the Reformation." In Aristotle's first book—"Of Vacuity"—the Stagyrite says, "there is voidness;" on that foundation the prisoner would stand or fall. Holding up a feather, he referred to the common physiological tenet that some birds have the power of lessening their specific gravity by exhausting the quill part of their feathers of the air in them; and then he declared, that by putting the feather down Tingle's throat, he contributed to lighten the circulation of air between the periosteum and his bones. The Bible says, in Psalm cii., verse 5, "By reason of my groaning"—"that (the groaning) is the same thing with the rattles in Matthew Tingle's throat." Towards the end of this extraordinary effusion, the prisoner referred with tact to subjects which would influence a Welsh jury,—his opposition to the introduction of rural police; his magistracy; his temperate life, the life of an inventive genius; and, above all, to his descent from Prince Llewellyn and Owen Tudor. The jury gave an hour's deliberation to their verdict, and then found the prisoner "Not Guilty;" whereupon the spectators in court shouted applause.

HEALTHY SKIN.—To those who value healthy skin we recommend the electric rubber of Mr. Ludlam, of 159, Oxford-street. It is intended for dry rubbing after cold water ablution,—the skin having been previously dried by the soft flax towel,—and is composed of alternate bands, tightly twisted, of *wool* and *flax*.

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DEATHS *in the Metropolis for the week ending Saturday, March* 8, 1851.

Causes of Death.	March 8. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	570	374	302	1247	10010
Specified Causes	569	373	299	1242	9967
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	200	35	16	251	1807
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	1	24	25	50	553
3. Tubercular Diseases. ...	71	123	14	208	1811
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	69	25	31	125	1262
5. Diseases of the Heart and Blood-vessels	8	33	28	70	302
6. Diseases of the Lungs, and of the other Organs of Respiration ...	112	93	116	321	1924
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	33	27	12	72	576
8. Diseases of the Kidneys, &c. ...	...	4	3	7	112
9. Childbirth, Diseases of the Uterus ...	...	2	1	3	113
10. Rheumatism, Diseases of the Bones, Joints, &c.	5	...	3	8	68
11. Diseases of the Skin, Cellular Tissue, &c.	1	...	...	1	13
12. Malformations	6	...	...	6	30
13. Premature Birth and Debility ...	34	2	...	36	220
14. Atrophy	19	...	1	20	143
15. Age	...	...	45	45	623
16. Sudden	5	3	3	11	139
17. Violence, Privation, Cold, and Intemperance	5	2	1	8	272
Causes not Specified	1	1	3	5	43

1. Small-pox ...	26	Paralysis	15	Disease of Spleen	...
Measles	30	Delirium Tremens	4	8. Nephritis.....	...
Scarlatina ...	20	Chorea	...	Nephria or Bright's Disease ...	1
Hooping Cough	70	Epilepsy	3	Ischuria	...
Croup	13	Tetanus	...	Diabetes	1
Thrush.....	3	Insanity	1	Stone	...
Diarrhœa ...	13	Convulsions	60	Cystitis	1
Dysentery ...	3	Disease of Brain, &c.	14	Stricture of Urethra ...	...
Cholera	2	5. Pericarditis...	8	Disease of Kidneys, &c.	4
Influenza ...	15	Aneurism ...	1	9. Paraphrenia ...	...
Purpura and Scurvy	...	Disease of Heart	61	Ovarian Dropsy.....	...
Ague	1	6. Laryngitis ...	8	Childbirth (see Metria)	2
Remittent Fever	3	Bronchitis ...	160	Disease of Uterus, &c.	1
Infantile Fever	3	Pleurisy	6	10. Arthritis	...
Typhus	36	Pneumonia...	96	Rheumatism	4
Metria or Puerperal Fever	4	Asthma	40	Disease of Joints, &c.	4
Rheumatic Fever	1	Disease of Lungs, &c.	11	11. Carbuncle ...	...
Erysipelas ...	5	7. Teething	21	Phlegmon ...	...
Syphilis	3	Quinsey	2	Disease of Skin, &c....	1
Noma or Canker.....	...	Gastritis	...	17. Intemperance ...	...
Hydrophobia ...	...	Enteritis	7	Privation of Food.....	1
2. Hæmorrhage	3	Peritonitis ...	4	Want of Breast-milk	2
Dropsy.....	19	Ascites.....	2	Neglect	...
Abscess	2	Ulceration (of Intestines, &c.)	5	Cold	...
Ulcer	1	Hernia	2	Poison	...
Fistula.....	...	Ileus.....	...	Burns and Scalds	3
Mortification	12	Intussusception	1	Hanging, &c.	...
Cancer	11	Stricture of Intestinal Canal	...	Drowning ...	1
Gout.....	2	Disease of Stomach, &c.	6	Fractures ...	1
3. Scrofula	7	Disease of Pancreas ...	...	Wounds	...
Tabes Mesenterica	16	Hepatitis.....	5	Other Violence.....	...
Phthisis (or Consumption)	154	Jaundice	7	All Violence	5
Hydrocephalus.....	31	Disease of Liver	10		
4. Cephalitis ...	8				
Apoplexy.....f	20				

BIRTHS AND DEATHS.

	Births.		Deaths.		Births over Deaths.	
Males	795	1580	582	1247	213	333
Females	785		665		120	

The Deaths in the several Districts are as follow :—

Districts.	Population in 1841.	March 8, 1851.	Sum of Ten Weeks.
London...	1948369	1247	10010
West	301189	175	1412
North	376568	220	1891
Central...	374199	255	1826
East	393067	272	2158
South	503346	325	2721

TO CORRESPONDENTS.

[To the Editor of the Medical Times.]

Sir,—Perusing your answers to Correspondents in your last paper, I perceived the following in answer to "A Constant Reader:"—"The Apothecaries' Company will receive Candidates for the classical examination on their arrival in town." The "Medical Directory" for 1851 says, that students will not be admitted to their Latin examination until they shall have completed two winter sessions of their medical studies. If the terms "Latin" and "classical" are synonymous, you would greatly oblige by informing me upon which am I to rely; whether are students admitted on their arrival in town, or after two winter sessions will have expired? By a reply you will greatly oblige. I am, &c., A Subscriber.

Castle-street, Ruthin.

[Our correspondent is to rely upon the "Medical Times" in preference to the "Medical Directory."]

[To the Editor of the Medical Times.]

Sir,—It is mentioned in the last Number of your Journal, that a discussion has taken place at a meeting of the Epidemiological Society relative to the nature of the Yellow Fever, which has lately prevailed in Cayenne, whether contagious or not; and that, in consequence of the importance of the question, the debate has been adjourned.

Looking into a Colonial paper, under date of the 21st of December, 1850, from Paramaribo, I find it stated by the Secretary to Government, that he is informed by the Governor of Cayenne, "that it is difficult to trace the origin of the epidemic," adding, that it "does not develop itself much, but still continues to make victims among the ships' crews, the troops, and the Government employés." I am, &c., J. D.

Leaketh How, Ambleside.

A Candidate for an Assistant-Surgeoncy must not be more than 26 years of age. To falsify a baptismal register is to commit a felony. Besides, no one could attempt so disreputable a proceeding, or rather crime, without being detected; for the authorities invariably compare the certificate of baptism sent to them with that deposited with the College of Surgeons when the candidate passed his examination for a licence to practice.

The Stethometer is an ingenious instrument, invented by Dr. Richard Quain, of Harley-street, and resembling in its action the chest measurer of Dr. Sibson. It indicates the comparative expansion of any two points of the thorax. For a particular description, and of the mode of using it, our Correspondent is referred to the "London Journal of Medicine," Vol. II. where Dr. Quain's communication appeared.

Medicus must refer to the list of Directors of both offices, and judge of their safety by the character of those who are responsible.

It is not true that the person alluded to passed his examination at the College of Surgeons at the age of 15; nor is it true that he was then complimented and told he was the youngest man who had ever been licensed. In 1838, the law required that evidence should be shown that a candidate for the Surgeon's diploma was 21 years of age. The law now requires that he shall be 22. Great tact is necessary to tell falsehoods without detection and subsequent disgrace.

The sheets, from page 497 to 544, of Mr. Wardrop's Work on the Heart can be obtained by application to our printer.

Communications are in Type from—

Mr. Wilde, of Dublin; Mr. Hester, of Oxford; Dr. Jenner, of University College and Albany-street; Mr. Annan, of Kinross; and Dr. Dudgeon, of Gloucester-place.

W. C., King's College, really must apply to his Professor, or to Mr. Thompson, the excellent Curator of the Museum. We are not exactly a dictionary.

Mr. Henry Smith has forwarded the concluding part of Mr. Fergusson's Clinical Lecture on Aneurism by Anastomosis.

The Letter of a Governor of St. Mary's Hospital reached us too late for insertion this week. It shall appear in our next Number.

[To the Editor of the Medical Times.]

Sir,—Will you have the kindness to inform me, through the medium of the "Medical Times," if a Coroner's Inquest is strictly a private affair, or if any person can claim admittance. I wish to be present at an inquest shortly to be held, and to know if any one can prevent me.

I am, &c., Medicus.

[A Coroner's Court is open to the public. Our Correspondent, unless a party criminated, has a right of admission.]

Communications have been received from—

Mr. Milton, of Jewin-street; Messrs. Duncan, Flockhart, and Co.; Messrs. T. and H. Smith, and Messrs. John J. Macfarlane and Co., of Edinburgh; Mr. Spurgin, of Northampton; Inquisitor; Medicus: A Subscriber; Dr. Robert Knox; Mr. Ludlam, of Oxford-street; Dr. Halpin, of Cavan; J. D., of Ambleside; Mr. Jones, of Derby; Mr. Quarles Harris, of Billiter-square; Dr. Barclay, of St. George's Hospital and Curzon-street; Mr. R. Ward, of the London Hospital and Broad-street-buildings; Dr. Hastings, of Cambray, Cheltenham; Mr. Harvey Holl, of St. George's Hospital; Mr. Stainthorpe, of Hoxham (not *Hainthorpe*, as stated in our last); Dr. Funck, of St. James's-place; Mr. Saunders, of H.M. 47th Regiment, Waterford; Medicus; Mr. Adams, of the London Hospital and St. Helen's-place; A Candidate for an Assistant-Surgeoncy; A Student anxious to pass; J. C. B.; Philo.

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ORIGINAL LECTURES.

LECTURES
ON
DIGESTION, RESPIRATION, AND SECRETION,
GIVEN AT THE ROYAL INSTITUTION, TO THE MEMBERS AND TO THE PUPILS OF ST. GEORGE'S HOSPITAL.

By H. BENCE JONES, M.D., F.R.S.,
Physician to St. George's Hospital.

LECTURE I.

ON THE FOOD OF PLANTS.

Gentlemen,—To prevent disappointment, I will commence these lectures on Animal Chemistry with a few words explanatory of the object which I wish to attain.

To you who are accustomed to this laboratory I cannot show new or striking experiments. I can hardly bring before you many preparations of substances which are not well known to you, whilst to those here present who are unaccustomed to chemical lectures, I cannot attempt now to give the elements of inorganic chemistry; for this, and this only is my object, to show you the application of your chemical knowledge to the explanation of the phenomena of digestion, respiration, and secretion, as far as it can at present be applied.

From want of knowledge, if from no other reason, I must fail in fully attaining the object I have in view; for, although in the last few years Professor Liebig has given a new impulse to this part of science, and by his work on flesh has given us an example of what we may expect from the highest chemical knowledge; though M. Regnault has lately published the most accurate experiments on respiration; though M. Bernard, of Paris, and M. Frerichs, of Göttingen, are increasing the knowledge of the chemistry of digestion; and, lastly, though M. Raymond has proved that electricity is closely connected with muscular action, yet so imperfect is our knowledge of animal chemistry, so much remains to be done, that I cannot but ask for your utmost indulgence, both for myself and for my subject.

Still no knowledge can be more noble, none more useful, and none more difficult, than that which can be included in the term animal chemistry. It is noble because it professes to explain a small part of the mystery of life; it is useful because it should guide the application of chemical substances to the alleviation and cure of diseases. It is difficult because of the peculiar and complicated circumstances in which the chemical actions in the body take place; so peculiar and so complicated that it cannot be said that the same action ever takes place twice in the human body under precisely similar circumstances.

To you who know well the elements of chemistry, I need not mention the influence of circumstances on chemical actions in inorganic chemistry. You know well how these circumstances determine whether hydrogen combines with oxygen or oxygen separates itself from hydrogen; whether carbonate of potash is decomposed by acetic acid, or acetate of potash decomposed by carbonic acid. In organic chemistry you know that the instances of the influence of circumstances in the laboratory are innumerable. The various kinds of fermentation of sugar will present themselves the most readily to your minds as an illustration of this fact.

Think, then, how mental, nervous, muscular, and cellular forces must affect the circumstances under which chemical actions occur in the human body.

Moreover, as yet, animal chemistry has not formed the great object of chemical research.

Chemistry at first was occupied with the examination of inorganic substances only. The mineral kingdom has furnished, and the animal kingdom has yet to become the principal subject of scientific chemical research.

The greater part of the energy and talent of the chemists of the present day is at work on vegetable organic chemistry: making analyses; finding equivalents; tracing substitutions; investigating organic radicals; searching for new processes for the formation of organic substances, as alkaloids; advancing the progress of agricultural chemistry. Everywhere we see the chemist working in the vegetable kingdom.

But even now animal chemistry is occupying more and more the attention of the best minds, and it will ultimately become the chief object of investigation.

The extent of knowledge that has to be obtained will be best seen as these lectures proceed, for I shall too often have to point out where our knowledge will be made more clear by future research. I shall do this the more readily, because I consider it is one grand object which can be obtained by lectures. For though the squaring and fitting of the knowledge we have acquired is very important, still more does our progress depend on the clear comprehension and demonstration of what is wanted and what must be procured.

In a chemical point of view, I think I shall most clearly bring before you the chemistry of the food of man, if I consider first the nature of the food of plants,—what it consists of,—whence it is procured,—whether the same food is good for all plants,—how the proper food or manure for each crop is determined. These are some of the questions which relate to the food of plants; and if I can make the answers clear to you, you will be enabled to see the relations and contrasts between plants and animals, and you will be the better able to understand what I shall say regarding the food of man.

You will immediately think of the composition of soils as represented by this analysis

	Soils. Fertile.	Medium.	Barren.
Silica	7767	9214	8465
Alumina	445	149	50
Oxides of Iron	515	398	82
Oxide of Manganese	83	31	3
Lime	212	59	13
Magnesia	153	36	7
Potash and Soda	24	14	2
Phosphoric Acid	66	6	13
Sulphuric Acid	56	1	1
Chlorine	4	2	3
Organic Matter	247	106	1200
	9574	9926	9839
Loss	426	74	161
	10000	10000	10000

and of mantres, as of guano, of bones, of phosphates, of mineral manures. These are the substances which are thought of most importance by those whose business it is to feed plants. Why is this? I shall not occupy your time here by any arguments against the doctrines of the transmutation of the chemical elements. I shall assume that all my hearers are as sure that carbon cannot be changed into nitrogen as that lead cannot be changed into gold. However much has been said and written on the transmutation of elements and forces, I shall assume that transmutations have to be proved and are not probable. That close similitudes and still unknown relations exist between elements and forces, is very probable; but the proof of transmutation is a totally different thing from the proof of resemblance or relationship. Thus, the proof that the chimpanzee bears the nearest resemblance to man may be easy; but this is totally different from the proof of the transmutation of a monkey into a man. Iron may be closely related to manganese, but this is very different from the conversion of manganese into iron. Chemically transubstantiation cannot be proved. If, then, one element cannot be converted into another, a plant to grow or increase in substance must somewhere and somehow obtain the different elements of which its growth or new substance is composed. If its growth consist of fourteen elements, as

Ultimate Elements of Food.

Carbon	C 6	Chlorine	Cl 36
Hydrogen	H 1	Sodium	Na 24
Oxygen	O 8	Calcium	Ca 20
Nitrogen	N 14	Potassium	K 32
Sulphur	S 16	Magnesium	Mg 12
Phosphorus	P 32	Iron	Fe 28
Silicon	Si 15	Manganese	Mn 28

each of these elements must be procured from without the plant; for it is assumed that calcium cannot be changed into potassium, nor sulphur into phosphorus, nor carbon into nitrogen. If it be inquired, What food is most nutritious or best for any plant to make it grow? the chemist answers, "I must know first of what elements the plant consists;

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secondly, what elements exist already around the plant." Then, knowing what must be there, and knowing what is already there, he can immediately say whether anything, and what thing, is wanting and must be given to enable the plant to obtain all those elements of which its growth is formed.

As regards plants, some of the elements always exist around them in such form and in such quantity, that little or no attention is paid to them. The carbonic acid and water of the atmosphere furnish the carbon, the hydrogen, and the oxygen, in the minutest state of subdivision. Thus, in speaking of the food of plants, but little is thought or said of the carbon, the hydrogen, and the oxygen. The source of the nitrogen of the plant is a matter of dispute,—Professor Liebig thinking that it arises solely from the ammonia in the air. Others think the nitrogen of the atmosphere may be used for the growth of the plant.

Another source of the nitrogen of plants may be the oxides of nitrogen which exist in the atmosphere. In a paper which was lately read before the Royal Society, I have stated that nitrous acid may be detected without any difficulty in rain water. It exists not only in the rain which falls during a thunderstorm, but in that which fell on different rainy days this autumn. I have found it every time I have looked for it, not only in that rain which fell in London, but at Kingston, and in Dorsetshire, far from any town, and on the south coast of Ireland with a south wind blowing. In all the rain water I have examined I have found nitrous acid. From two pints to twenty pints were evaporated, a small quantity of pure carbonate of potash being added to prevent the escape of the acid. When reduced to about a drachm, the residue was tested by starch, dilute solution of hydriodate of potash, and very dilute hydrochloric acid, when the iodide of starch immediately appeared.

In the young plant also it is most probable that the highly albuminous compound which is found stored up in the seed is provided for the formation of the earliest growth of the young cells, before they have acquired that activity by which they can form albumen for their further development. But the sulphur, the phosphorus, the calcium, the potassium, whence do these come? The lime and potash cannot be brought to the plant by the air. They must, therefore, exist in the soil; and, if they are not present in the soil, then the plant cannot get them and cannot grow. Here then is the reason why the plant feeder thinks of guano, of phosphates, and of mineral manures. The air cannot bring these elements to the plants; the plants cannot grow without them; and, as the plants cannot move, the elements must be brought to the plants. If carbon, hydrogen, or oxygen did not exist in the air or soil, then it would be as necessary to procure these elements elsewhere and to bring them to the plant, as it is to procure lime or potash, otherwise no growth would ensue. But carbon, hydrogen, and oxygen are ever present in the air, in the most finely divided state, and in such plenty, that no further supply of these is necessary. Very different is the fact regarding the other elements,—phosphorus, sulphur, alkalies, earths, and salts. If all plants consisted of the same elements, in the same proportions, they would all require the same substances to be present in the soil to enable them to obtain their sustenance,—all would live on the same food; but analysis shows that plants do not contain the same quantities of the elements; even the different parts of plants, though they may have the same elements, do not contain them in the same proportions. Quantitatively, if not qualitatively, different species of plants contain differences in their elements, so that a soil which might contain just those elements in the proportions suited to one kind or part of a plant or vegetable, might be deficient in the proper quantities of one or more elements, which must be present in different quantities in another kind of vegetable or part of a plant. Thence we may deduce the grand chemical or substantial law regarding the chemical composition of the food of plants. Every chemical element which analysis finds in a plant must be present in the air or soil around that plant in quantity proportioned to the want of the plant. This is the chemical condition without which the plant cannot grow.

A mechanical condition also exists, closely related to the chemical condition; and the mechanical law, or the law of form, is, that the chemical elements must exist in a very fine state of division.

When I speak of mechanical condition, I do not intend that it is a state which must be produced by mechanical means alone. The fine state of division may be produced partly by mechanical, partly by chemical action. The fine state of division might be effected solely by chemical actions. I contrast the chemical with the mechanical law, solely to bring out strongly before you the importance of the state of division of the food of plants. The finest possible state is the gaseous state; next to this the liquid state, a state of solution. If the chemical elements requisite for any plant exist in the soil locked up, that is, in a state in which they cannot be finely divided nor dissolved in water, they cannot be used by the plant for its growth or maintenance. The richest manure, if in an insoluble state, would be of no more benefit to the fields than the miser's hoards to the wealth of the country. The plough and the manure, the mechanical and the chemical agent, are as mutually connected as form and substance.

I will take the growth of grass and of corn as my examples to illustrate what I have now been saying; and I take grass because all flesh is grass. Of what, then, does grass consist? We will first look at its ultimate elements, tracing whence they come and what they ultimately form:—Carbon, hydrogen, oxygen, nitrogen, sulphur, phosphorus, silicon, calcium, iron, magnesium, potassium, sodium, chlorine. To furnish these elements, in the air, the water, and the soil, we find carbonic acid, water, ammonia, nitrates, sulphates, phosphates, silicates, lime, magnesia, and potash, soda, and iron. The chemical law is, that if any element is absent the grass cannot grow. The mechanical law is not less essential; the form in which the elements must exist is by no means unimportant. A fine state of division,—the gaseous or liquid form,—is necessary. Wherever grass grows these elements are found as gases dissolved in the air, or as liquids, that is, dissolved in water, whereby they are enabled to enter into the composition of the plant.

The growth of the grass consists in the combination of the elements of the food into certain groups or proximate constituents, which are arranged in a peculiar form, differing according to the species of the plant.

It has been said that the growth of the grass consists in the formation of organic matter out of inorganic elements; but this opposition between organic and inorganic matter cannot be strictly maintained, for the inorganic elements enter into the composition of the plant as constantly as the organic elements. In truth carbon, hydrogen, oxygen, and nitrogen are not more organic elements than sulphur, potash, lime, iron, chlorine, iodine, sulphur, phosphorus, potassium, sodium, calcium, silicon, iron, manganese, all of which enter into the structure of organic substances; not to the same amount or extent as carbon, hydrogen, oxygen, or nitrogen, but as essentially and as intimately. They are not incidental elements. Take as an example the iron in the blood; it is as necessary for the colouring matter as the carbon, hydrogen, oxygen, nitrogen. Without the iron a totally different substance, with different properties, would be produced.

If I separate the water from this grass I obtain hay; if I burn it I get the ashes such as you see here from a fused hay-stack; if I treat it with ether and alcohol a beautiful crystalline fatty matter can be obtained; and by heating it thus with soda and lime I can show you the ammonia which comes from the albuminous matter present in the grass. Here are some analyses of the quantities of these substances present in hay:—

Composition of Grass.

	Lucerne.	Tussac Grass Tops.	Hay.
Albumen	1·9	4·79	7·1 to 6·4
Starch	2·2		
Woody fibre	14·3		
Sugar	0·8	18·67	76·7 to 0·0
Extractive matter	4·4		
Fatty matter	0·6		5·0 to 3·0
Phosphate of Lime	0·8		
Inorganic matter		1·37	5·0 to 0·0
Water	75·0	75·17	7·2 to 13·9
	100·	100·	100·

Ashes of Hay.

Silica	60·1	Gypsum	1·2
Phosphate of Lime	16·1	Sulphate of Potash	2·2
Phosphate of Peroxide of Iron	5·0	Chloride of Potassium	1·3
Lime	2·7	Carbonate of Soda	2·0
Magnesia	8·6	Loss	0·8
Total	100·0		

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In each portion of the grass four classes of substances may thus be proved to exist:—1st, water; 2nd, salts, which give ashes; 3rd, organic substances, containing little or no nitrogen, and 4th, organic substances containing much nitrogen.

Instead of dwelling longer on grass, the food of animals, it will be well to take wheat, the food of man.

Here is the ultimate and proximate analysis of wheat:—

Wheat Flour.

Ultimate Elements.	Proximate Constituents.
1. Carbon.	1. Gum.
2. Hydrogen.	2. Sugar.
3. Oxygen.	3. Starch.
4. Nitrogen.	4. Lignine.
5. Sulphur.	5. Fat.
6. Phosphorus.	6. Albumen.
7. Calcium.	7. Fibrin?
8. Magnesium.	8. Caseiu?
9. Silicon.	9. Glutine.
	10. Ashes.
	11. Water.

Wheat Ashes.

	Grain.	Straw.
Chloride of Potassium		15·13
Chloride of Sodium	10·0	0·89
Potash	23·18	0·68
Soda	3·09	
Lime	3·33	6·93
Magnesia	11·75	1·69
Peroxide of Iron	1·11	0·99
Phosphoric Acid	46·36	5·05
Sulphuric Acid		0·74
Silica	1·18	67·90
	100·	100·

Each of these elements must be obtained from without the plant. If they are not present in the air, water, or soil, no growth takes place, and the mechanical law must also be satisfied. If the elements are present in the soil, and cannot be made soluble, the wheat cannot grow. How rich soever the soil may be, there must also be rain or dew, otherwise there will be no fertility. The elements cannot enter into the plant. The wheat cannot grow, because growth is the formation of new substance, and each portion of the substance of the wheat contains water, salts, non-nitrogenous organic matter, constituting the five first proximate constituents of the wheat, and the nitrogenous organic matter, which composes the four following constituents in the table.

Suppose, for a moment, that no nitrogen could be obtained by the wheat, no albuminous substance could be formed; and, as each particle of the wheat must contain an albuminous substance, if no nitrogen is present, no growth can take place.

If lime or potash were absent instead of nitrogen, the same impossibility for the production of grain would result.

That wheat actually contains these classes of substances is easily shown. Here you see the water; here are the salts; here are the starch and fat; here the nitrogenised organic substances are separated.

Hence, as regards the food of grass or wheat, two laws must be fulfilled,—a mechanical law and a chemical law.

1st. Every element of the plant must exist around the plant. 2nd. In that state in which it is capable of passing into the plant.

Already the importance of the mechanical law can be made apparent to you. For if the elements, after they pass into and become part of the grass and the wheat, are arranged in the same way, forming the same compounds,—if we find in both, 1. water; 2. ashes; 3. non-nitrogenous organic matter; 4. nitrogenous organic substances,—both plants ought, chemically speaking, to be capable of forming the food of man. The grass is as capable as the wheat of fulfilling the chemical law of digestion. Nay, more; the grass actually does give all the substances necessary for forming the nerves, the muscles, the blood, and the bone, to the ox and the ass. Why can it not do the same to man? Why does not man live on grass also? The answer to this question is, that grass cannot in man easily be made to fulfil the mechanical law of digestion,—that is, the substances which the grass contains are less capable of being finely divided than the substances which exist in wheat. The green colouring matter which is closely concerned in the deoxidation which takes place under the influence of light, on which the formation of organic compounds depends, and the woody fibre or skeleton which supports the green colouring matter, and exposes its surface to the light,—these insoluble substances hinder the solution of the salts, fat, starch, and albumen of the grass; and, because the mechanical law cannot be fulfilled, the chemical constituents of the grass cannot serve for the food of man.

I have, then, in this lecture, tried to show you that the food of plants consists of each and all the elements which exist in the plant; that these must all be present around the plant, in the air, the water, or the soil; that the same food is good for all plants, but that different quantities of the elements are required for different kinds of plants, according as the different plants vary in the quantities of the elements of which they are composed; and lastly, that the proper food or manure must be determined by comparing the substances in the plant with those which surround it. Not that it is sufficient to consider only the chemical composition of the surrounding substances; the mechanical state is of equal importance. For if the elements exist in combinations which are incapable of being finely divided, they cannot be used for the support of the plant.

Thus the mechanical law is of equal importance with the chemical law, and it is on the fulfilment of both laws that the thriving of the plant depends.

In my next lecture I shall try to show you that the same two laws apply as rigidly to the food of man.

LECTURES ON HISTOLOGY.

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS, LONDON.

By J. T. QUEKETT, Esq.,

Assistant-Conservator of the Hunterian Museum.

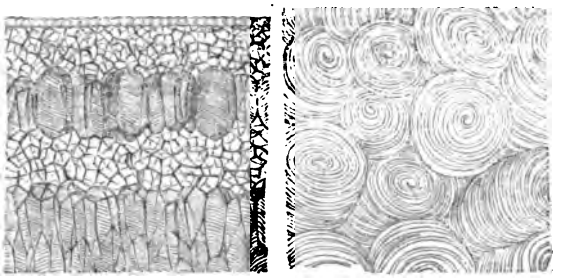
[Continued from page 228.]

FIBRO-CELLULAR TISSUE.

We now come to a class of cells which, for the sake of distinction, may be termed compound, being made up of membrane and fibre; these occupy certain positions in plants, and form a tissue known as the fibro-cellular. The cells are of a more or less oval figure, and the fibre often attains a very large size, even as much as 1-3000th of an inch.

Fibro-cellular tissue is common in the leaves of many orchidaceous plants, and likewise occurs abundantly in the testa of seeds. I have already exhibited to you a specimen of this tissue, taken from the testa of the seed of the Collomia grandiflora, in which you may recollect that cells containing a spiral fibre were pushed off from the seed after being moistened with water. I will now show you the cells seen in a vertical section of the leaf of an orchis, (Pleurothallis ruscifolia,) and in this specimen, as represented in *Fig.* 23, A, you may notice that the greater part of the leaf is occupied with long angular cells, containing spiral fibres. Immediately under the cuticle, on the upper edge of certain sections, may occasionally be seen a row of small oval cells

A *Fig.* 23. B



in which the fibre is of very large size, and in some cases even unrolled; if this layer of cuticle be peeled off after some slight degree of maceration, and the attached surface be turned uppermost, you will have a beautiful view of the fibro-cellular tissue, as shown by B, in *Fig.* 23. You may notice also the termination of the fibres on the free extre-

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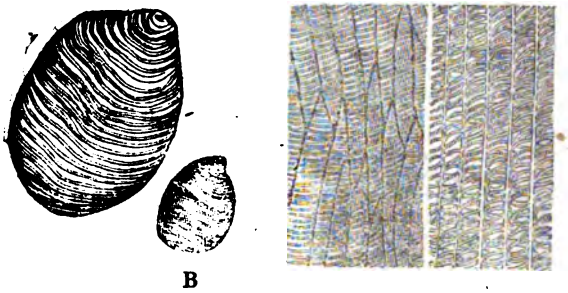
mity of the cell; these cells can be isolated from the cuticle as shown in this specimen, *Fig.* 24, A, from the leaf of another Orchidaceous plant, *Oncidium Stramineum*, in which you have one of the finest examples both for the size of the cells and of the spiral fibre. Detached cells of Pleurothallis have already been represented by E and F in *Fig.* 4.

In this object, in which the cells have been obtained by maceration from the testa of the seed of the *Cobœa Scandens*, the cells, as shown in *Fig.* 24, B, are of small size, and the fibre itself is remarkable for its extreme minuteness, and the number of its coils.

A *Fig.* 24. C D

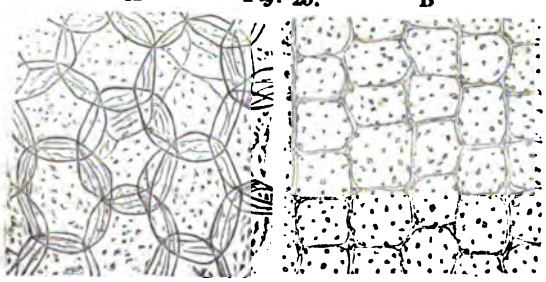


B

Another form of fibro-cellular tissue occurs in the testa of the almond, for here, as this specimen will show, the fibre is interrupted in parts, and the cell approaches in character to what is termed the porous type. The cells of the fibro-cellular tissue of the Collomia have been already shown you in *Fig.* 5, A. The same kind of cells exist in very great abundance in certain seeds, whose testæ project laterally, forming thin membranes or wings, as they are called by botanists. In this specimen, from the *Sphenogyne speciosa*, represented in *Fig.* 24, C, you will observe a delicate layer, composed of elongated cells of fibro-cellular tissue, so also in this object (*Fig.* 24, D) from the seed of *Bignonia*, but in this latter specimen the cells are longer and the fibre more coarse than in the former one. In the seed of *Lophospermum erubescens*, in which the thin membranous wing surrounds the entire circumference of the seed, the cells with their spiral fibres are well shown. The most remarkable specimen of wing, however, and one in which the tissue we are speaking of is largely developed, occurs in this plant, from the East Indies, the wing being more than an inch in length on each side of the seed.

Porous Tissue.—The next form of tissue I shall introduce to your notice is that known as the *porous*, arising, as this model shows, from an unequal deposit of secondary matter on the interior of the cell wall; the spaces left, being thinner than the other parts, produce the effect or appearance of pits or pores. It is one of the commonest of the vegetable tissues, and is generally met with in the pith and other light parts of plants. The first specimen that I shall submit to you is the material known as the Chinese rice-paper, which, however, is not *paper* at all, but a thin shaving of a light plant of the genus *Æschynomene*. I have often heard ladies complain of the difficulty of getting the colour to lie smoothly on this material, which is readily accounted for when it is examined by the microscope. You will see (as shown in *Fig.* 25, A) that it is composed of a series of large cells, the walls of which are minutely porous. Another but spurious kind of rice-paper, procured from a species of *Desmanthus*, (*D. natans*,) is still more difficult to draw on than the last, and the walls of some of the cells are covered with large pores.

A *Fig.* 25. B



The most striking specimen, perhaps, that I can show you of porous tissue is that from the oldest living inhabitant on the surface of our globe, viz., the dragon palm of Teneriffe. In this preparation (represented in *Fig.* 25, B) every cell, however small, may be seen to have its walls covered with large pores. In all these examples, the cell wall is invariably present; I shall, however, hereafter show you specimens of this form of tissue in which, through age, the cell membrane has been absorbed, and holes result.

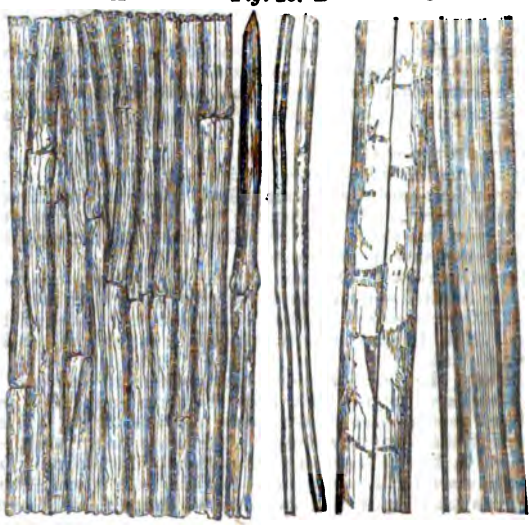
Woody Tissue.—This tissue, which forms almost the entire bulk of certain plants, is by far the most useful and important to man of all those occurring in the vegetable kingdom, since it supplies material to almost every branch of art, and to it we are indebted for our linen, ropes, cordage, &c., to say nothing of paper in many of its endless forms.

It consists of elongated transparent tubes of great strength, but varying much in size in different plants; each tube is more or less pointed at both extremities, and in some cases the tubular part has become almost solid by the internal deposition of new matter, so that the trace of the central cavity is only indicated by a line. Such tubes are remarkable for their toughness, and have received the name of fibres. The outer membrane of the fibre is generally structureless; but in the flax and other plants, in which the fibres are of great length, there are every here and there traces of transverse markings.

The fibres are aggregated together in bundles, and are separated from the plant for use by a process termed *hackling*, which may be defined as a mixture of beating and combing. I now send round for your inspection a specimen of the stem of the flax plant, as grown in Russia, and also an example of the same as it is imported thence into this country, the bundles of woody fibre having been to a certain extent separated by hackling; a repetition of this process, and that of maceration and of bleaching, reduce it, after its arrival here, to this white silky condition, or that of flax; and in this state it is ready for the various purposes for which it is employed; the manufacture of linen being the chief of these.

I will now exhibit to you, under the microscope, some flax, which, as shewn in *Fig.* 26, A, is composed of structureless tubes occurring in bundles; and in this specimen, as well as in (*Fig.* 27, B,) in which the fibres have been more separated, you will observe, in the centre of each, a line indicating its tubular character, and also a series of transverse markings or knots occurring in the course of the fibre. The plant I

A *Fig.* 26. B C



now show you is a species of nettle, and known in commerce as Chinese grass; it is made up of the same bundles of woody tissue, and comes into this country in the form of coarse fibres. After being hackled, macerated, and bleached, it is made into very delicate shiny linen handkerchiefs, the material of which is known as grass cloth. Some of the fibres are represented in *Fig.* 26, C. *Phormium tenax*, or New Zealand flax, is of a peculiar nature, and much stronger than ours, but its fibres appear to

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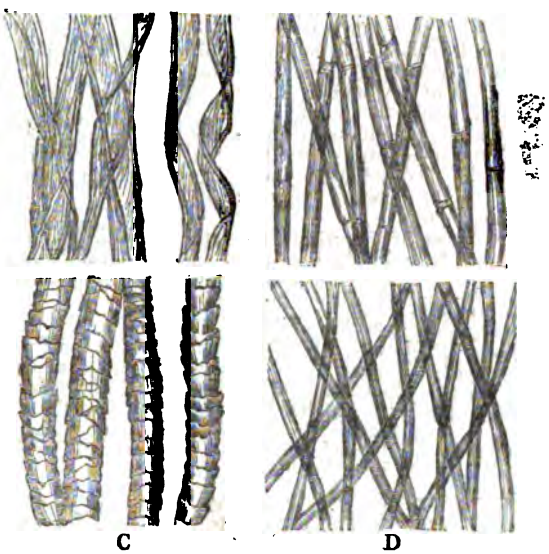
have an excessively brittle outer coat; for, although they will resist a very considerable force applied to them longitudinally, if tied into a knot so that the fibre is twisted, or if the force be transversely applied, they readily break.

Of all the woody fibres I have examined, those obtained from the leaves of the pine-apple plant appear to be the finest, *i.e.*, reducible to the most delicate subdivisions; and, for the sake of comparison, I have given representations of the fibre of flax, *Fig.* 26, A, of China grass, *Fig.* 26, C, and of pine-apple fibre, in, *Fig.* 26, B, as seen under a power of 400 diameters; and you will then notice that the last is much smaller than either of the other two.

A *Fig.* 27. B



C D

It is of course important, under certain circumstances, to determine the true nature and composition of certain textures used as articles of clothing, &c., and this is readily done if we bear in mind the characters of the elementary tissues; thus, in linen we expect to find the component threads mere longitudinal, rounded, unmarked fibres, such as you have already seen in flax, in *Fig.* 27, B; but where cotton has been employed solely, or by admixture, its fibres, as shown in *Fig.* 27, A, are recognised as flattened more or less twisted bands, and bearing other marks of resemblance to hairs, this being in fact their true nature, since, in the condition of elongated cells, they are situated within the pods around the seeds.

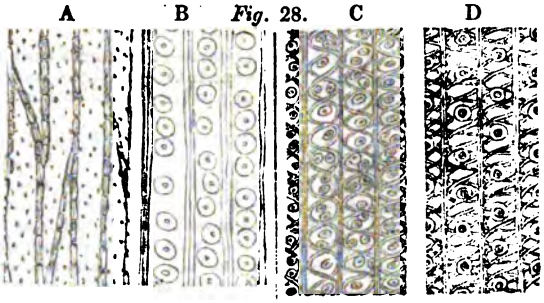
I now, in *Fig.* 27, A, show you some cotton, in which you will readily notice the peculiar characters above described, and, having already seen two specimens of woody fibre, you will have no difficulty in distinguishing them the one from the other, or even from wool and silk, the former of which is represented in *Fig.* 27, C, and the latter in *Fig.* 27, D.

When mummies have, at various periods, been brought to this country and unrolled, it has been a matter of curiosity to determine the nature of the clothing material, as giving evidence of that in use in the country and age in which they were embalmed; as, for instance, these portions of bandages now before you, which were removed by Mr. Pettigrew in this theatre some years since, from a mummy in the Museum. By microscopic investigation of the texture of mummy cloths, it has been shown that the Egyptians used flax only in their manufacture, whereas in the Peruvian mummy cloths cotton alone has been discovered. In some fabrics from Otaheite, wool is mixed with the cotton, and is recognisable, as represented in *Fig.* 27, C, by the zigzag transverse markings on the fibres, which are characteristic of hair.

Having now shown you examples of woody fibres which are structureless and of great length, and therefore much used in the manufacture of linen, I will next exhibit a few specimens, remarkable for the peculiar markings they present. These, as in the case of other cells, depend upon the deposit of secondary matter, or of lignine, which has taken place in their interior. First, then, I exhibit a transverse section of deal, in which you may see that the so-called fibres are tubular. In fact, the whole very much resembles a piece of lace, and is quite as full of holes, the cell walls in section being the only structure visible.

In the next specimen, a transverse section of a fossil palm from Antigua, most of the woody fibres will be found to be occupied by a concentric deposit like that of the beech, represented in *Fig.* 19, A. In this object, from the clematis, you may observe that the woody fibres are exceedingly short, more or less pointed at both extremities, and the walls, as shown in *Fig.* 28, A, marked with numerous simple pores. These pores are more evident, and of a compound or bordered character, in this section of deal, *Fig.* 28, B, made in the direction of the medullary rays; for in each fibre a row of large circular dots or pores may be seen, which are characteristic of the coniferæ, each pore having a smaller one in its centre. In some woods, as in this fossil specimen of Araucaria, three or more rows of pores are found in each fibre.

A B *Fig.* 28. C D



Spiral fibres may also co-exist with pores, as in the yew, a specimen of which was shown you on a previous occasion. This object, which also exhibits the muriform tissue of the medullary rays, has, as shown in *Fig.* 28, C, two spiral fibres interlacing each other, and in the parts where the fibres are most distant one or two pores are found. The co-existence of large pores with a well-developed spiral fibre is best seen in this section of the Norfolk Island pine, *Araucaria excelsa* (*Fig.* 28, D,) a tree which, in its own climate, often attains the enormous height of 200 feet. The nature of these pores or glands, as they have been termed, of the woody fibres of the coniferæ has long been a matter of dispute; but when we next meet I will explain what is now known of their structure.

All the specimens you have yet seen have been taken from compact woods; there are, however, certain palms in which the woody fibres are so hard and stiff, and the bundles so easily separated from each other, that they are employed in the manufacture of brushes, some of which are of large size, and used to sweep the street; others, like that I hold in my hand, are smaller, and employed for scrubbing.

In this section of the stem of the cocoa-nut palm, the bundles of woody tissue are of a brown colour, and form the spots you see upon the surface; the surrounding texture is so compact as to bind them firmly together. If a transverse section be made of one of these bundles, you will have a very striking example of the interior of a woody tube being almost entirely filled up by a dense secondary matter, which will account for the strength of the individual fibres. In many light woods, especially the one I now show you from China, which is, from its softness, employed as a substitute for cork in the lining of insect-boxes, and the name of which I have not been able to obtain, the woody fibres are short but of rather large diameter, and, instead of being filled up with hard matter, as in the cocoa-nut, their interior is occupied with granules of starch; these, in some cases, are arranged in rows, in a single, double, or treble series, and might readily be mistaken for pores; the addition of iodine, however, readily reveals their true nature.

BRITISH ASSOCIATION.—The next meeting of the British Association for the Advancement of Science will open at Ipswich on Wednesday, the 2nd July, and will extend over a week or eight days. Professor Airy, Astronomer Royal, is the President for the year.

NEWCASTLE.—A female, eighteen years of age, employed in a large white-lead manufactory at Newcastle, is said to have died last week from the absorption of that material into the brain.

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ORIGINAL COMMUNICATIONS.

TYPHUS FEVER, TYPHOID FEVER, RELAPSING FEVER, AND FEBRICULA,

THE DISEASES COMMONLY CONFOUNDED UNDER THE TERM

CONTINUED FEVER.

ILLUSTRATED BY CASES COLLECTED AT THE BED-SIDE.

By Wm. JENNER, M.D. Londin.,

Licentiate of the Royal College of Physicians, Professor of Pathological Anatomy in University College, London, and Assistant-Physician to University College Hospital.

(Concluded from page 119.)

TWENTIETH PAPER.

FEBRICULA.

MODEL CASES.

Case 62.—In a lad aged fifteen years—severe headache—loss of appetite—vomiting—slight epistaxis—vertigo—furred tongue—pain in abdomen—frequent pulse—*convalescence on the 7th day of disease.*

John K., aged 15, a plasterer, had enjoyed health till he was attacked, without known cause, on first waking, May 7, with severe headache and loss of appetite; in the course of the day he had some pain in the abdomen, his bowels were at this time confined; he vomited several times. On May 9, while in the act of vomiting, he lost a little blood from the nose. Two pills taken on this day acted on the bowels. There had been no rigors, and no pain in the back. He had attended at a dispensary till his admission into the hospital, May 11, 1848, under the care of Dr. Tweedie, on which day he walked from Whitecross-street to the hospital, a distance of about a mile and a half.

The following notes were made:—

May 12th, *i.e., the 6th day of disease.*—Some headache; vertigo in the erect position; mind and special senses normal; slight heaviness of expression; feels weak, but is able to leave his bed unaided.

Tongue moist, covered with thick white fur; no appetite, no thirst; complains of occasional pain in the abdomen; has passed one scanty hard stool; pulse 96; physical chest-signs normal; skin hot, no rash.

7th day of disease.—Pulse 84; a little appetite; two stools; otherwise as yesterday.

8th day of disease.—Pulse 60; tongue clean; appetite good; three stools.

Case 63.—In a man aged 18 years—frontal headache—pain in the limbs—rigors—slightly relaxed bowels—sleeplessness—vertigo—frequent pulse—hot skin—*convalescence on the 6th or 7th days.*

Thomas M., aged 18, a healthy man, a labourer, was admitted into the London Fever Hospital, May 19, 1848, under the care of Dr. Tweedie.

On Wednesday, May 17, after sleeping in the streets for four nights, in want of food, &c., he was attacked with severe frontal headache, pain in the limbs, rigors, and slight relaxation of the bowels. He did not take to the bed till his entrance into the hospital.

The following notes were made:—

May 20th, *i. e., the 4th day of disease.*—Severe frontal throbbing headache, sometimes so severe that it appears to take his sight away; little sleep; bitter taste in the mouth; mind normal; vertigo in the erect position, so that he is unable now to leave his bed without assistance; cheeks flushed; tongue moist, white; much thirst; little appetite; no stool; no pain nor tenderness of the abdomen; pulse 120; physical chest-signs normal; skin hot and moist; no trace of mulberry rash or rose spots.

5th day of disease.—Pulse 84; skin warm, perspiring freely. Slept well; little headache. Tongue as yesterday; 3 stools.

6th day no note.

7th day of disease.—Pulse 60; sleeps well; no headache; tongue moist, clean; appetite good; 2 stools.

Case 64.—In a female aged thirty-four years—vertigo—headache—rigors—chilliness—heat of skin—pain in the limbs—loss of appetite—thirst—sleeplessness—frontal headache—frequent pulse—furred tongue—*convalescence on the 6th or 7th day of disease.*

Mary W., aged 34, a hawker, the mother of four children, but unmarried, was admitted into the London Fever Hospital, August 14th, 1847, under the care of Dr. Southwood Smith. She affirmed that her habits were temperate; that she had never been drunk in her life.

She had been "tramping" lately, sleeping in common lodging-houses. She reached London for the first time the day her illness commenced. She entered the hospital on the first day of illness. I did not see her till the fourth day. Between the time of her admission and the date at which I saw her, the following symptoms were present. Vertigo; headache; rigors; sense of chilliness frequently repeated; heat of skin; pain in the limbs; confined bowels; loss of appetite; extreme thirst; little sleep. She had taken shortly before admission half an ounce of sulphate of magnesia, which acted three times; on the next day an aperient powder and a senna draught were administered.

Aug. 17th, *i.e., 4th day of disease.*—Great frontal headache; vertigo in erect position; no *tinnitus aurium;* no injection of conjunctivæ; no pain in the limbs; mind natural; slept but little last night; tongue white and moist; no stool to-day, several yesterday; slight fulness of abdomen, said to be natural.

Pulse 120; no cough; no abnormal physical chest-signs; skin warm, no mulberry rash, no rose spots.

5th day of disease.—Little sleep, and that disturbed by dreams; intense headache; vertigo in erect position. Complains of a "cold shivering" sensation running through her every minute or two. Tongue moist, covered with thick white fur; much thirst.

6th day.—No note was made.

7th day of disease.—Slept well last night; no delirium; no headache; tongue cleaner; less thirst; no appetite; pulse 72; skin cool and moist. She reports that she perspired profusely last night, since which she has felt much better. Complains, for the first time since admission, of great pain in her joints when they are moved. No swelling nor redness; the next day she was well.

Case 65.—In a woman, aged 20—headache—sense of languor—vertigo—sleeplessness—delirium—headache—pains in the limbs—tongue dry, furred, yellow—frequent pulse—hot skin—trace of albumen in urine on the 8th day—*convalescence on the ninth day of disease.*

Mary C., aged 20, a large-made, stout, fair woman, a domestic servant, was admitted into the London Fever Hospital August 13, 1847, under the care of Dr. Southwood Smith. She was a native of Roscommon, and had resided in London only four months.

On August 9th, while engaged at the wash-tub, she was suddenly seized with headache and general sense of languor. On the 10th she was unable to quit her bed on account of great giddiness on assuming the erect position. So far as could be ascertained, there had been, before she came under observation, no epistaxis, no rigors, no abnormal affection of the special senses.

From the outset she had slept but little; the bowels, at first confined, were subsequently relieved by medicine.

The following notes were made:—

August 15th, *i. e., the 7th day of disease.*—Has been very delirious the last two nights, not sleeping at all; slept a little this morning; mind rambles on first waking; answers questions rationally; memory appears good; mind now quite natural; severe headache; vertigo; no abnormal affection of the special senses; pupils natural; conjunctivæ injected; face slightly flushed; raises herself in bed without any aid; complains of severe pain in the hands and arms. Tongue dry and smooth, with yellow fur down the centre, edges moist; great thirst; no appetite; two relaxed stools; no tenderness of the abdomen, slight fulness; pulse quick; no cough; no abnormal physical chest-signs; skin hot and damp, no mulberry rash; no sudamina.

8th day of disease.—No sleep during the night; much noisy delirium; her head was shaved this morning; since then she has slept a little; pulse 84; skin cool; urine deep orange—specific gravity 1016; it contains a very small quantity of albumen; no trace of lithates.

9th day of disease.—Some sleep last night; no delirium; no headache; gets in and out of bed unassisted; skin cool, moist; no spots of any kind; tongue moist, cleaning anteriorly, thickly furred posteriorly; pulse 72.

10th day of disease.—Slept well; no delirium; expression good; moves freely unaided; tongue moist, almost clean; no appetite; three stools; pulse 72; skin natural.

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Febricula is not contagious; it has no specific cause, but attacks an individual, sometimes after having exerted himself more than ordinarily, sometimes after slight excess, and frequently without known cause. It commences with rigors, generally slight, often imperfectly marked, yet occasionally severe. Chilliness, headache, pains in the limbs, and sense of fatigue follow, and these are soon succeeded by a hot and dry skin, frequent pulse, generally from 96 to 120, thirst, want of appetite, white tongue, slightly confined bowels, and drowsiness; in some cases, however, the patient sleeps but little; rarely in adults, more commonly in children, trifling delirium is observed on first waking from their restless slumbers. There is no cough, no abnormal physical breath or heart sounds; the abdomen is indolent, and preserves its natural degree of fulness and resonance. (a)

These symptoms increase in severity for the space of three or four days; the rapidity of the pulse increases till it reaches from 100 to 120; at the same time it is full, hard, and perhaps bounding; the tongue is covered with a thick white fur; anorexia is complete; the bowels rarely act without medicine; the urine is scanty and high coloured; the face retains its normal expression, or it is slightly anxious and oppressed; there is rarely any prostration.

After the expiration of five, six, or seven days, the feverish symptoms disappear as suddenly as they began,—a critical discharge, a deposit of lithates, or a copious sweat, in many cases marks the moment when the patient regains his health.

The chief variations observed in the disease are, 1st, in the mode of attack—thus, now and then it commences insidiously; and, 2ndly, in the duration, which in some cases is only two or three, but in rare cases is eight or ten days; in some cases the headache, in others the restlessness, and in others, again, pain in the limbs, as though the patients had been bruised, are the predominant symptoms, and give a complexion to the case. Epistaxis, the catamenial flow, and diarrhœa, are now and then the evacuations which occur at the crisis. In some cases the disease terminates at once without any critical discharge; and in others it ceases so gradually, that the exact day on which the patient regains health cannot be fixed.

A herpetic eruption on the lips not unfrequently occurs at the time the general symptoms are about to abate.

Febricula, uncomplicated, *is never fatal*. Local inflammations are occasionally set up in its course, and then either the local disease terminates with the general affection, or the critical evacuation terminates the fever, while the local lesion, excited and kept up by that condition of the system, terminates at the same time.

In such cases the order of events is as follows:—Rigors, chilliness, hot skin, frequent pulse, in a day or two inflammation—say of the substance of the lung—in a week from the outset a profuse sweat, followed by a sudden fall in the temperature of the skin, and in the rapidity of the pulse, and, consentaneously, by a marked improvement in the chest symptoms; the breathing is less oppressed, the cough less troublesome, perhaps almost disappears, the physical signs cease to make progress, the patient believes himself well, and is, in fact, very quickly restored to health. These are the cases which have misled many in estimating the value of remedies on the progress of inflammation of the lungs, &c., and have also led to the idea that a copious sweat, an attack of epistaxis, or a diarrhœa, has been the means of relieving a pneumonia, and, as a consequence, to the employment of remedies to procure sweating &c., in pneumonia.

It is by no means an uncommon event for a patient to be sent into the hospital with a pulse of 72, a cool skin, and slightly furred tongue, and yet bringing with him a certificate to testify that he is labouring under severe fever, such certificate having been granted when the severity of the general symptoms warranted the expectation that the patient would be long ill.

The close relation, if not identity, of the symptoms present in the primary attack of relapsing fever, and those which occurred in the cases above described, as illustrative of febricula, must strike every reader, and the question naturally arises, How are cases of febricula to be distinguished from cases of relapsing fever in its first stage? and how are they, even eventually, to be separated from those cases of relapsing fever which do not suffer relapse? My answer is, that I know no absolutely distinctive feature; that my own observations do not enable me to afford an answer to this question. Doubtless, however, an analysis of a more careful collection of cases than that I have, might afford answer. The relative condition of the spleen ought to be made a subject of special research, and much light might also be thrown [on the subject by investigations into the causes of the two groups of cases here described respectively under the terms "relapsing fever" and "febricula."

A fever lasting only about twenty-four hours has been described by medical writers under various names. (a) By some it has been regarded as a primary general affection; by others, the constitutional disturbance has been considered as simply indicative of local inflammation, or of local irritation, as it has been called. I propose to express, by the term febricula, that condition of the system which is manifested by a hot skin, a quick pulse, and white tongue, continuing from two to eight days, and, so far as our powers of observation go, unable to be referred to local disease as its cause.

If we take cases from the two extremes of the two groups, the distinction I have made between relapsing fever and febricula will be found a natural one, and if, symptomatologically or nosologically, they are unable in some cases to be separated, yet pathologically, using that word in its wide sense, the difference is evident. Thus, let us take the two following cases:—

A man aged 24, moderately stout and strong made, by trade a brickmaker, walked from the neighbourhood of Highgate to the Hospital, with the aid of his wife. He had been working in the open field, exposed to an autumn sun; and six days before he came under observation had been attacked with headache, chilliness, and pain in the limbs, his bowels being at the time regular. When he came to the hospital his skin was hot and dry; he was suffering from severe frontal headache; his conjunctivæ were slightly injected, so that his eyes had a somewhat "ferretty look;" he could walk, but his gait was feeble and unsteady; he felt ill, and looked oppressed and somewhat anxious; he could give a collected account of his past and present sensations. When put to bed he was restless, tossing about. His urine was scanty, clear, and high coloured; his bowels had acted in the morning; there was no desire for food, but considerable craving for fluids; no nausea, no vomiting, no abnormal fulness, resonance, nor tenderness of the abdomen; his tongue was covered with white fur, and was somewhat tremulous; his pulse was 100, full and of good power; there was no cough, no pain in the chest, no sonorous nor sibilous râle, no friction sound.

On the following day he felt almost well; the skin was of nearly normal temperature; the expression natural, the general strength improved; all pain in the head and limbs gone; the tongue was yet white, but the appetite had returned; the pulse was 80 only; the urine loaded with lithates. On the following day he was allowed to get up, he continued well.

A man aged 24, strong made, by trade a bricklayer, came under observation in August, 1847. Admitted from a house whence two others had been removed with the same symptoms. Three days before he came under observation, he had been attacked with rigors, headache, pain in the back

(a) An eruption is referred to by Duvasse, viz., that of the *taches bleuâtres* as present in some cases of febricula. This same eruption had been previously described as occasionally to be seen in cases of typhoid fever. Forget, of Montpellier, among others, had especially mentioned its occurrence in the latter disease. My own observations enable me to confirm the statements of these writers. I have seen the *taches bleuâtres* in both febricula and typhoid fever. It is important to be acquainted with the characters of these spots, as the inexperienced may, in some cases, confound them with the mulberry rash, though ordinarily they are readily to be distinguished.

The *taches bleuâtres* do not pass through the same stages as the mulberry rash; they never present the characters of its first stage; they are from the moment of their appearance on a level with surface of the skin; they are irregular in outline, and are larger than the separate spots constituting the mulberry rash; they are unaffected by pressure, have a delicate bluish aspect, are of a uniform hue over their whole extent, and, in the few cases I have seen, were much less abundant than the spots of the mulberry rash. In one case, in which some doubt as to their nature was entertained, and which case I saw in consequence, they were nearly confluent about the groins and lower part of the abdomen, and might readily have been confounded with the true mulberry rash; the abdomen and back I believe to be their most frequent seat.

(a) I would direct the reader's attention to a very excellent description o febricula, by M. Duvasse, in an inaugural thesis, published in Paris in 1847. M. Duvasse considers what I have regarded as one affection to be divisible into two, viz., ephemera and synoque, but they appear to pass by insensible gradations into each other, to differ only in intensity.

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and limbs, nausea, and vomiting. On the 4th day of disease, hot and dry skin; jaundice; frontal headache; disturbed sleep; pulse 120; tongue white, moist; frequent vomiting of green fluid; bowels open; tenderness at epigastrium. On the 6th day, epistaxis; and on the 7th, profuse sweating; apparent convalescence, with cool skin and pulse of 60, on the 8th day. On the 15th day, rigors; severe pains in the back and limbs; headache; nausea; vomiting; loss of appetite; thirst; hot and dry skin; pulse 120; bowels open.

On the 19th day, profuse sweating; and on the 20th, permanent convalescence, with a pulse of 50 and a cool skin.

These two cases differ in cause; in the one the disease was attributable to over exertion under a hot sun; in the other to contagion; they differ also in symptoms, and they differ finally in their course.

Influenced, then, by cases such as these, I have been led to describe as different two affections, the non-identity of which, I confess, I am not absolutely prepared to *prove*.

CONCLUSION.

Let me now briefly recapitulate the object of these papers, and the conclusions I have desired the reader to form.

The object was to illustrate, by cases collected at the bedside, the fevers commonly confounded under the term "continued fever." I say commonly, for, although some writers in this country have distinguished typhus fever from typhoid fever; and others have distinguished relapsing fever from typhus fever; and others, again, have separated febricula from typhus fever, yet neither of these distinctions has yet been drawn in any of the systematic works on medicine; and no one, so far as I am aware, has formally stated his belief that these four affections are as many distinct diseases; as distinct from each other, that is to say, as are measles, scarlet fever, and small-pox; the poison of the one being by no combination of circumstances capable of producing, inducing, or exciting the others.

The four diseases thus attempted to be separated from each other may be briefly thus defined:—

Febricula.—A disease attended by chilliness, alternating with sense of heat, headache, white tongue, confined bowels, high coloured scanty urine, hot and dry skin, and frequent pulse, terminating in from two to seven days, and having for its cause excess, exposure, over fatigue, &c., *i.e.*, the cause of febricula is not specific.

Relapsing fever.—A disease arising from a specific cause, attended by rigors and chilliness, headache, vomiting, white tongue, epigastric tenderness, confined bowels, enlarged liver and spleen (a), high coloured urine, frequent pulse, hot skin, and occasionally by jaundice, and terminating in apparent convalescence in from five to eight days—in a week a relapse, *i.e.*, a repetition of the symptom present during the primary attack.

After death spleen and liver are found considerably enlarged, absence of marked congestion of internal organs.

Typhoid Fever.—A disease arising from a specific cause, attended by rigors, chilliness, headache, successive crops of rose spots, frequent pulse, sonorous râle, diarrhœa, fulness, resonance and tenderness of the abdomen, gurgling in the right iliac fossa, increased splenic dulness, delirium, dry and brown tongue, and prostration, and terminating by the 30th day. After death.—Enlargement of the mesenteric gland, disease of Peyer's patches, enlargement of the spleen, —disseminated ulcerations, disseminated inflammations.

Typhus Fever.—A disease arising from a specific cause, attended by rigors, chilliness, headache, mulberry rash, frequent pulse, delirium, dry brown tongue, and prostration, and terminating by the 21st day. After death.—Disseminated and extreme congestions; in young persons, enlargement of the spleen.

I do not mean to say that in every case of either of these diseases all the symptoms here enumerated will be present, or that, in many cases, other symptoms will not be superadded; but I give the above as the ordinary diagnostic characters of the diseases,—symptoms which, if present, leave no doubt on the mind of the observer of the name of the disease. Just as, if chilliness, succeeded by heat of skin and running from the eyes and nose, and harsh cough, should be followed, on the fourth day, by an eruption of port-wine red spots, arranging themselves more or less crescentically, and then the whole of these symptoms should disappear on from the seventh to the ninth day of disease, no one would entertain a doubt that the patient was labouring under measles; and that, although measles may affect a person, and yet some of the above symptoms be absent; or although, in particular cases, additional symptoms may be present. I intend, then, the foregoing brief descriptions of febricula, relapsing fever, typhoid fever, and typhus fever, to apply to those diseases as much as, but no more than, the above description applies to measles.

As my object was simply to illustrate the different continued fevers of the country, it is only with reference to here and there a point; *e.g.*, the frequency with which the mulberry rash is absent from individuals of different ages affected with typhus fever, that I have attempted to prove any of the statements I have made with reference to the frequency with which particular symptoms or lesions are present or absent, the invariable connexion between certain symptoms and certain changes of structure, &c., &c. At the same time, in some instances, the cases adduced prove the fact they illustrate; the case is at once the illustration and the proof; *e.g.*, the two cases given in the 11th paper, on simulated perforation of the intestine.

At the outset I stated that I should touch but slightly on the question of treatment. This was not from my undervaluing the usefulness of therapeutical agents in some of the diseases here illustrated, but rather because I felt that so much had been written on the treatment of fever,—so often had it been argued *post hoc propter hoc*,(a)—so greatly had some erred, it appeared to me, in substituting general impressions of the efficacy of drugs for rigid logical induction, that I determined to make few therapeutical assertions unsupported by that weight of argument in the shape of facts I knew I had it in my power to adduce in evidence; to arrange and to analyse those facts is a work of time, and the pages of a weekly journal are unsuited for their publication. Such are the arguments that have influenced me in postponing the consideration of treatment—a subject so easy to write on, so difficult to discuss philosophically. But this much I hope the reader will have gathered from these papers, that henceforth, whether the therapeutist speak dogmatically in the loose and easy phraseology of general terms, or, having worked out his results by rigid induction, he lay before his reader the process by which he arrived at his conclusion, as well as the conclusion itself,—I say, whether he intends to load the literature of fever with another *ipse dixit*, or to add a truth to those which have been dug out by constant toil,—whichever be his purpose, he must distinguish from each other diseases having a different origin, a different course, different symptoms, and leading to or accompanied by different lesions, and not confound all under one common name because they possess in certain cases, as common symptoms, a brown tongue, frequent pulse, and loss of general power.

I cannot conclude these papers without briefly adverting to the labours of others on the subjects embraced by them. As I said at their commencement, I lay no claim to originality. At the same time, *every statement I have made rests on my own observations.*

It would not be consistent with my object to enter into a lengthened account of the share taken by different observers in bringing our knowledge on the subject of fever to what appears to me to be its present comparatively advanced condition, but I will refer those who are desirous of learning

(a) In my paper, in the last volume of the "Medico-Chirurgical Transactions," it is stated that there are "no abnormal abdominal signs" present in relapsing fever. The error arose from my having been in the habit, when taking notes of cases at the bed-side, to use the above expression, to signify for the sake of brevity,—no abnormal fulness, resonance, nor gurgling in the abdomen. The rules of the Society do not permit writers to correct their own papers for the press. Had I seen the paper in proof I should not, I think, have allowed the error to pass uncorrected.

(a) Let the reader refer to Dr. Welsh's book "On the Efficacy of Blood-letting in Fever," and compare the cases contained in the appendix to that work—the larger majority of which are examples of relapsing fever—with the cases of relapsing fever narrated in this paper. In the former, the pulse often fell after the blood-letting, and the patient rapidly regained his health; in the cases I have given, as marked and as sudden improvement ensued within a week when no blood-letting was employed. The pulse in my cases often fell in a few hours from 120 to 60. Whenever in his cases this fall occurred after the loss of blood, Dr. Welsh attributed it *to* the loss of blood. Relapse frequently occurred after blood-letting in the epidemic described by Dr. Welsh; and it was forthwith argued that the relapse was the *consequence* of the blood-letting; in the cases I have detailed relapses were frequent, and yet no blood-letting had been employed.

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the various steps by which we have gained our position, to Dr. Bartlett's work on "The Fevers of the United States," and to Dr. Paterson's "Essay on the Epidemic Fever of 1847-48;" to the former for a literary history of typhoid and typhus fevers, to the latter for a brief history of the relapsing fever; and, finally, to M. Jules Duvasse's Thesis, Paris, 1847, for a history of febricula, termed by him "*Fièvres Ephémère et Synoque.*" These writers show pretty clearly that neither of the above four affections can be regarded as a new disease; that all have been frequently described, *now* as varieties of prevailing epidemics, and *now* as new diseases; and, from my own researches into the histories of past epidemics of fever, I have no hesitation in averring my confident belief, that an explanation of the great difference observed by different historians in the progress, mortality, and lesions of fever,—the difference of opinion entertained as to its communicability by observers of unquestionable honesty of purpose and soundness of judgment,—that the difference of opinion expressed as to the admissibility of particular modes of treatment,—that an explanation, I say, of these differences is not to be sought in variations in a hypothetical epidemic constitution, but in the differences which exist in the essential nature of the four diseases commonly confounded under the term "continued fever."

ON CONGENITAL CONTRACTIONS OF THE FINGERS,

AND A NEW OPERATION FOR THEIR RELIEF, AND FOR THE CURE OF DEFORMITIES ARISING FROM THE CONTRACTION OF CICATRICES OF BURNS.

By J. TORRY HESTER, Esq.,

Surgeon to the Radcliffe Infirmary, Oxford.

The want of success which has, for the most part, attended operations for the removal of deformities resulting from the contraction of the cicatrices of burns, especially those of the neck, and the opinion of most writers agreeing as to the inappropriateness of all operative interference, induce me to offer to your notice the benefit which I have been able to afford by an operation performed on a different principle from any (as far as I can ascertain) which had been previously adopted.

My attention to the subject of contractions was first drawn to that of congenital ones of the fingers. When attending Mr. Abernethy's lectures, I was struck with the remarks which he made on these cases, when he altogether deprecated every operation for their relief. "You may," said he, "divide the contracted skin and straighten the finger, but the wound having healed by granulations, the cicatrices will inevitably contract, and the finger will, after a time, be as crooked as ever." I had not long left London, when a young lady was shown to me with the little finger on each hand very much contracted; and, on thinking the matter over, and calling to mind what Mr. Abernethy had said on the subject, it occurred to me that they might be liberated, and the wounds healed without granulations; and I set about it in the following manner:—I made two incisions, each commencing at the distal end of the second phalanx of the finger, and the two meeting at the proximal end of the first, forming thus a letter V. My next step was to dissect the flap quite back, and straighten the finger, when the wound appeared in this form \/. I then proceeded to bring the edges of the wound together, when it appeared thus Y, forming a letter Y; and the fingers being kept stretched on splints, the wound healed by adhesion, and afterwards evinced no disposition to contract.

Having thus succeeded, I conceived that an operation, based on the same principles, might be tried with a chance of success in cases of contractions of cicatrices of burns; and not long afterwards a boy was shown to me, in whose case I much wished to make trial of the new mode of operating; but his fears and those of his friends stood in my way, and nothing was done for his relief. Years passed on, and no case offered itself to my notice, till, about two years ago, I was applied to by the parents of Wm. Morris, aged 11, whose case I am about to relate.

I cannot describe the case better than by referring to the accompanying sketch, for which, as well as for that

Fig. 1.

marked No. 2, I am indebted to my friend Mr. Tyerman. His appearance was horrible, and, from the chin having been for about seven years drawn down by the contracted cicatrix, the form of the lower maxillary bone was considerably altered, and the teeth projected about a third of an inch beyond those in the upper jaw. In consequence of the lower jaw being closely fixed to the sternum, the act of eating was accomplished with much difficulty and labour, and his articulation was so indistinct, that he could scarcely be understood; he was unable to retain his saliva, and his eyes could not be closed when he slept. Under these circumstances, notwithstanding considerable opposition from authorities whose opinions I much respected, and, as far as I know, those of authors being against operative proceedings in these cases, (a) I determined on making an attempt to improve his condition. The child's friends were duly warned that the operation, being untried, might prove as unsuccessful as others had been; and that, from its magnitude and the extent of the surface to be exposed, it would be attended with considerable danger to his life; but such was the misery of his condition, that they said they would prefer taking the chance; and that, should it prove fatal, it would be preferable to his continuing in the state he was in, and my little patient was himself as anxious as his friends for the operation.

There would, of course, be no chance of bringing the sides of the wound together; but I thought that, by liberating the cicatrix, and leaving a quantity of loose integument in the throat, and making a new cicatrix on the sternum at a distance from the chin, and where its contraction could not act upon it, I should, at all events, very much improve the condition of my patient; and on May 11th, 1849, I operated in the following manner:—

I made two incisions, each extending from the angle of the jaw to the level of the lowest part of the sterum, where they terminated, about an inch and a-half apart, and a cross cut was made from one to the other. The dotted lines in *Fig.* 2

(a) Mr. Liston, after speaking of the various methods which have been proposed and adopted, including the grafting of a piece of sound integument from a neighbouring part, says:—"There is no great encouragement to make such attempts, however; certainly no severe operation is warrantable;" and Mr. Syme, who gives a plate of a case not much worse than mine, and which, when moderately recent, was not probably at all so, says, "The most sanguine operator would not attempt any interference with such a case as the one here represented." But I refer the reader to the plate itself, at page 48 in his "Principles of Surgery." The case to which I have alluded was not, when it first came under my notice, worse than that of Wm. Morris, but it is now much worse than that represented in Mr. Syme's works.

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Fig. 2.

indicate the direction and extent of the incisions, but they were begun higher up than they can be shown in a front view. I then proceeded to dissect up the integuments and cicatrix till I reached the chin. The flap contracted when the chin was liberated, so as to expose almost the entire front of the chest; a very considerable lateral contraction likewise took place, leaving a very large raw surface on each side of the neck. The boy's face assumed a natural appearance, and the wound was dressed simply. On removing the dressings on the third day, the lower part of the flap appeared to possess but little if any vitality, and on the following day it was clearly in a sloughing state, but enough of it remained sound to reach the sternum and clavicles, to which parts it soon adhered pretty firmly. It is needless to give anything like a detailed account of the progress of the wound; suffice it to say, that for many months it would have given the idea that it was the result of an extensive burn over the sternum. The sides were for a considerable time drawn together by strips of adhesive plaister, but eventually it was healed under the application of zinc lotion under oiled silk. As it has been cicatrized for many months, no chance remains of its becoming worse; on the contrary, the boy's face improves every month. The sketch, *Fig.* 3, will be the best comment on the success of the operation.

Fig. 3.

In a similar case, instead of cutting through the sides of the cicatrix as I did in this, I should certainly go beyond it, as the flap would be better nourished, and there would consequently be a smaller risk of sloughing, and I should perhaps not carry my incisions so far down on the sternum; as the event proved, that, although about a third part of the flap sloughed, sufficient remained to effect the purpose intended.

It is my intention to carry out the principle in other cases, and at some future period I hope, through the medium of your valuable journal, to give the result to the public.

St. Aldates, Oxford.

P.S.—I understand that Mr. Stanley, to whom I showed the boy last summer and described the operation, has performed a similar one in St. Bartholomew's Hospital within the last month or six weeks.

WOUND OF THE BRAIN,

BY EDWARD T. ROE, M.D.

THE following case is interesting, as showing what an amount of injury may be inflicted on the brain without being necessarily attended by immediately fatal consequences.

By being published now, while the patient is still under my care, two advantages may be derived: firstly, any suggestions toward treatment can be carried out, and secondly, any physiological experiments instituted; while, on the other hand, from the nature of the injury, and the persistence of all the graver symptoms, it may, I fear, be fairly inferred that the history of the case is closed, and that no material alteration or improvement will be effected either by time or remedial measures.

Thomas Hale, aged 35, married, a quarryman of middle height and moderately robust appearance, states that on June 22nd, 1850, he was assisting in hay-making at Catdown. A scaffolding or stage had been erected at the side of the hay-rick, and while his companion, a man called Joslyn, was in the act of throwing some hay upon it, the pitchfork he was using missed the hay, and struck Hale in the right eyebrow, a little outside the centre, and exactly two inches from the mesian line of the body; instead of drawing the pitchfork out, Joslyn, under the impression that he had caught the hay again, thrust it further in, the other prong of the fork, at the same time, glancing over the outside of Hale's head more than three inches.

The pitch-fork was a new one, and consisted of two forks, each 8¼ inches long and 3 inches apart at the points, each point was nearly an eighth of an inch in diameter, and the whole, including a stout wooden handle, measured 7 feet 6 inches long.

The direction the pitch-fork took was upwards and backwards; one prong entering the brain, and the other passing over and doubling the brim of a straw hat that he had on at the time.

When the prong was withdrawn, which was accomplished with extreme difficulty, Hale turned to leave the field, having the impression that his eye had been driven out of his head; but he had not proceeded more than five or six yards before he fell on his left side—that side crippling away under him. He was put into a cart and taken home. Although but very little blood flowed from the wound, he became extremely faint. On a surgeon seeing him, a probe was passed into the wound to a depth of nearly three inches. Subsequently he had leeches applied to the head, was bled and ptyalised, and, after having been confined to his bed for many weeks, sufficiently recovered to move about; but, from the moment he fell in the hay-field, up to the present time, he has been paralysed on the left side.

He now (Nov. 4th) presents the following appearances.—There is a slight scar to be seen in the right eyebrow, and the superciliary ridge feels flattened and less defined than on the left side; he carries his head a little to the right side; the right angle of the mouth is drawn up when he smiles, the left side of the face being at the same time motionless; the left eye is a little less sensible to the stimulus of light than the right, and rather more dilated; the tongue inclines considerably to the left side when protruded; the left hand and arm feel to him as if shortened or contracted; the fingers are drawn in, and cannot be kept straight; he cannot raise his hand to his head; it can be put there, but the whole limb feels stiff; in the morning, on waking, he can put his fingers out straight, and they will remain so for a short time, but at no other time can this be done; when out

of his house, the hand gets cold, and the arm then becomes drawn up across the epigastrium; when in doors the whole left side feels to him warmer than the right; the left foot swings in walking; the great toe does not now catch as it did when he first moved about, and he fancies that his leg has increased in strength. He has no pain in the head, nor tinnitus aurium. He can taste, smell, and see as well as he ever could; but he considers that his sight becomes dim from reading sooner than it did before the accident. Tongue clean, bowels open, pulse 110, feeble in the left wrist. He has a seton in the neck.

℞ Ferri sulph. ʒj.; magnes. sulph. ʒiv.; acid. sulph. dil. ʒiss.; strychniæ, gr. ss.; syr. simplicis, ʒiv.; inf. gent. co. ad ʒvj.; M ʒss. c. ʒj. aquæ b. d.

Nov. 11.—The same; but states that on the 9th the arm, for the first time, "jumped violently," and that he noticed the same thing in his leg two months ago, after which it began to improve. He could not move his toes before the jumping began, nor walk at all, but he could immediately after. He thinks his arm is improving.

Pergat.

Nov. 15.—He walked this morning a mile in three-quarters of an hour, and says he is better. Bowels open, tongue clean, pulse 108, feebler in left wrist than right.

Nov. 18.—The arm appears to be gaining strength, and he can raise it higher; other symptoms unaltered.

Increase the dose of strychnia to 1-18th of a grain.

Nov. 20.—His wife came to inform me that he has considerable trembling and shaking of the left leg; this alteration was preceded by twitching of the limb; then it became stiff, and the foot turned in, so that when he attempted to walk he did so on the outer side of the foot; in other respects he is the same.

Ordered the dose of strychnia to be diminished to 1-36th of a grain.

Nov. 23.—He has lost the trembling, and is as well as he was before. He can, but with considerable difficulty, raise his hand to the level of his nose. Pupil of the left eye still slightly dilated; apex of tongue inclined half an inch to the left of the mesian line. Bowels open regularly, tongue clean, pulse 100, feeble in the left wrist. The left arm feels heavy, and the fingers are strongly contracted.

Dec. 6.—Since the last report he thinks his arm has been daily increasing in strength, and he can now raise his hand level with his eyebrow. I directed him to raise a copper coal-scoop, weighing about 25lbs., with the left hand; he did so, but he had to extend the fingers with the right hand to enable him to grasp the handle, and had consilerable difficulty afterwards in getting the handle out of the strongly contracted hand. He still swings his foot, but thinks he has more power, and now walks a mile in 30 minutes. Appetite good, and he is not losing flesh.

Pergat.

Dec. 20.—Does not consider that he has improved for the last ten days.

Ordered that he should be electro-magnetised.

Dec. 23.—The electro-magnetism was administered by his holding in each hand the wire of one of Hearder's beautiful little instruments; he felt the shocks powerfully in the right hand, but scarcely at all in the left, and he does not think it has done him any good.

The dose of strychnia was increased to 1-18th, and he was ordered to have his arm clothed in flannel and briskly rubbed twice a day.

Dec. 26.—He felt the electro-magnetism more on the 23rd than previously, but he does not think it has done him the slightest service. I put my finger into his left hand, desiring him to grasp it; but he could contract his fingers very triflingly upon it.

Dec. 30.—Last Thursday he was electro-magnetised, and again to day, and he states that he has more power in his hand at the time, but not after; he believes that his arm is stronger.

Jan. 30.—Since the last report he has been regularly electro-magnetised twice a week, and has continued his medicine; but I do not see the slighest improvement, although he says that his arm is stronger, and that he can raise it higher. The tongue sometimes appears less inclined to the left side, at others it is precisely as at first recorded. The memory is good, and all the faculties of the mind appear intact, but I fear that there is no hope of restoration of the paralysed limbs.

Of my treatment, I have nothing to say in its favour, for it was purely empirical: probably in all such cases remedial means are of very doubtful value.

Princess-square, Plymouth.

FRACTURE OF TIBIA OF RIGHT LEG.

PHLEBITIS IN THE LEFT LIMB—TREATED WITH CALOMEL AND OPIUM.

By ROBERT ANNAN, Esq., Surgeon.

On January 15, 1851, William Stevenson, aged 28, a farm-servant, rather tall, and of healthy habit of body, received a kick from a horse, by which the tibia of the right leg was fractured across near to the middle of the bone. The fibula remaining entire, there was scarcely any displacement of the ends of the broken bone. There was some swelling, with slight abrasion on the front of the fractured part.

Previous to my arrival, cloths wet in cold water had been applied, which were directed to be continued—the limb being laid straight on a pillow properly secured.

January 19.—The swelling had so much diminished, that I applied pasteboard splints padded, and secured in the usual manner. The bowels being slow, a dose of ol. ricin. was ordered, and to be repeated every second or third day if necessary. Tea and toast morning and evening, with broth and bread for dinner.

January 27.—Under this treatment the patient did well; and, considering occasional visits only now necessary, I left him in charge of his wife, with general instructions, promising to see him in a few days; the patient residing some miles distant.

Feb. 2, 2 p.m., I received an urgent call to see him. On arrival, I found that two days previous, at an early hour in the morning, he had had pain and difficulty in voiding urine, shortly after followed by rigors, which returned occasionally during that day; that next day (Feb. 1,) the rigors continuing, he had felt pain towards evening in the left hypogastric region and groin. The fractured limb gave no uneasiness. These symptoms had continued to increase in severity till I saw him.

Countenance dark, contracted, and anxious. Breathing quick. Pulse irregular, and easily compressible, varying from 136 to 144. Skin hot, with great thirst; tongue dry and furred; urine turbid. Left thigh somewhat swollen, but not discoloured, firm, and elastic. Below the knee the limb felt hard, tense, and very painful; the veins over the calf of the leg feeling like cords; while the limb, especially the posterior part, and around the ankle-joint, to the points of the toes, had a livid dark brown colour. By account had taken a half dose of ol. ricin. on the 31st January, with but moderate effect.

No leeches being at hand, warm fomentations were ordered to the limb and hypogastric region, and to be frequently repeated.

℞ Tinct. opii, gtt. xxx.; calomel, gr. iii.; sacchar. q. s.; sumat statim.

℞ Opii, gr. ss., calomel, gr. ij.; ft. pil., quarta quaque horâ sumenda.

February 3, 10 a.m.—General symptoms nearly as yesterday. Had passed a bad night. Countenance indicative of deep distress. Swelling of thigh increased, and livor of leg and foot, with a sense of cold and numbness to the points of the toes, giving a *vivid impression of incipient gangrene*. Had not been able to void urine since last night. Though prepared to relieve him with the catheter, I hesitated to do so, from the fear of increasing irritation within the pelvis.

℞ Opii, gr. i.; calomel, gr. iij.; sumat statim.

In rather more than an hour I found that the opiate had enabled him to void urine freely.

℞ Acet. plumbi ʒi.; acid. acet. fort., ℥i.; tinct. opii, ʒiiss.; aq. font. lb. ij.; ft. lotio.

To be applied warm to the leg and foot, the limb being covered with flannel.

To the groin and thigh fomentation of hot water.

Contin. pil. opii et cal. quarta quaque horâ.

Ead. die 4 p.m.—Patient appeared easier. Urine free; from which I was led to express to his clergymen, (the Rev. Mr. Peters, of Kinross,) and to the relatives, a more favourable opinion of the case than the symptoms in the morning warranted.

Contin. pil. opii et calomel et fot.

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Feb. 4.—Had slept a good deal during the night; pulse 124 and more full and soft; swelling of thigh increased, but the livor and tension of the leg had rather diminished; countenance improved.

Contin. pil. et fot.

Feb. 5.—Had passed a better night; pulse 124; colour of leg and tension less. By measurement the left thigh is fully six inches in circumference larger than the right.

℞ Pil. col. comp., gr. xii., secundis horis, ad alvi plenam evacuationem. To resume the pil. opii et cal. after the operation of the purgative. Contin. fot.

Feb. 6.—General symptoms and state of limb improved. Had taken 36 grains of the colocynth pill, ere the bowels were moved very freely; and his pil. opii being too early resumed, vomiting took place. Diarrhœa, the stools being greenish and watery, with a slight tinge of blood.

Intermit pil. opii et cal. ad hor. primam. p.m. contin. fot.

Feb. 7.—General symptoms improved; pulse 98, and soft; circumference of left thigh has diminished fully two inches during last two days; livor and tension of leg diminishing.

Contin. fot. Flannel bags filled with bran, wrung out of hot water, to the thigh and groin. Mane et vespere, opii gr. i., calomel gr. ij.

Feb. 8.—Had passed a good night; pulse 94, and soft; colour of leg decidedly improved.

Contin. pil. op. et cal., mane et vespere. Gentle friction to the limb, with a sponge and hot water, several times daily.

Feb. 10.—Appearance of limb and general symptoms improved; expresses a desire for more nourishment, which was allowed, though still to be confined to farinaceous food; a little milk being now added.

Horâ somni, opii gr. i.

Feb. 13.—Rapidly convalescing; swelling of thigh diminishing; leg, save around the ankle joint and foot, very nearly of the natural dimensions.

Continue the friction; a roller to be applied to the limb. Pil rhæ. comp. gr. xv., and to be repeated pro re nata.

Feb. 17.—Circumference of left thigh two and three-quarter inches greater than the right. State of leg and foot unchanged since last report. The fractured limb was liberated from the splints two days ago. Continue the friction and roller.

Writers on obstetric medicine and on surgery have described *phlegmatia dolens* and *phlebitis* as nearly allied, if not identical, in their nature and pathological character; though a reference to the latest authorities, Velpeau for example, and to the conflicting narratives and opinions of cases reported in our periodical literature, shows that the subject is still attended with difficulties.

In *phlegmatia dolens* it is agreed that a fatal termination is rare, save when the patients have sunk from the violence of the febrile symptoms, from debility, or gangrene and extensive suppuration. On the other hand, "acute inflammation of the veins, more especially those of large size, almost always proves fatal; sometimes in a very few days, but seldom before the end of a week." (Syme, Travers, &c.) On dissection, the vein is found thickened in its coats, and containing coagulated blood or pus, or a mixture of both. In the case of an old peninsular campaigner, of fully fifty years, of intemperate habits, whom I attended some years ago, *dysuria* having taken place after a fit of drinking, the left limb, from the groin to the toes, became rapidly and enormously enlarged, and death ensued before the end of the third day.

In a less acute form—for in proportion as the inflammation is chronic, the danger is less—phlebitis may exist for several weeks. In a clergyman, aged 58, of feeble constitution, and further broken by a series of anomalous internal symptoms, before he came under the care of Mr. Dewar, of Dunfermline, and myself, first one and latterly the other leg and one arm became simultaneously affected, and proved fatal in about eight weeks.

It has attended dysentery, hæmorrhoidal disease, and cancer of the rectum; and Mr. Trye, of Gloucester, has described a case as *phlegmatia dolens* in a person who had suffered from retention of urine and inflammation of the bladder.

On the case now brought under notice, it is unnecessary to say much. Here the symptoms of *phlebitis* are too clear to admit of doubt; and whether designated as such, or as an acute attack of *phlegmatia dolens*, does not materially signify, seeing that this case combined the features common to both.

As to the *exciting* cause, it will be recollected that *dysuria* commenced on the morning of January 31st, two days fully before I saw him in this attack; and, as I afterwards learned, though kept from my knowledge at the time, that, while a full diet of animal and other food was given, the laxative ordered was neglected. There is thus every reason to conclude, that the *loaded intestines*, pressing on and irritating the bladder, the iliac, external iliac, and crural veins, first produced *dysuria*, followed by retention of urine, and subsequently the train of symptoms above described as *phlebitis*.

The fractured limb, I need scarcely add, except in so far as the confined position of the patient may have tended to aggravate the pressure by the loaded intestines, could have had no share whatever in producing this attack. And probably it is from the same cause,—the vicinity of the sigmoid flexure of the colon,—that, as acknowledged by accoucheurs of experience, *phlegmatia dolens* and diseased *ovarium* are met with much more frequently in the *left* than the right side; a point of no small importance to the practitioner.

Kinross.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

LONDON HOSPITAL.

By NATHANIEL WARD, Esq., F.R.C.S.,
Assistant-Surgeon to the Hospital, and Demonstrator of Anatomy in the School;
AND
ROBERT BRUDENELL CARTER, Esq.,

FEMORAL HERNIA.—SAC OPENED.—SECONDARY HÆMORRHAGE.

A MARRIED woman, aged 50, was admitted under the care of Mr. Curling, with a femoral hernia of the left side. The hernia had been down six days, and it appeared that it had been produced by the ill usage of her husband, who had beaten her and trampled on her. She was not aware of having had a rupture before. On her admission she was in a state of great prostration, and had been vomiting for several days. There was no pain in the tumour. The absence of pain, the great debility of the patient, and the length of time that the hernia had descended, led to the immediate performance of the operation, which was done in the usual manner, the sac, however, being laid open. The intestine having been exposed, after the escape of a few drops of dark-coloured fluid from the sac, was found to be nearly black; and, on the division of the neck of the sac upwards and inwards, so as to incise at the same time the concave border of Gimbernat's ligament, was gently replaced in the abdominal cavity. The prognosis was, of course, unfavourable. Four ounces of wine with beef tea, and milk diet at intervals, were ordered; and a grain of opium was immediately given to the patient on her removal from the operating theatre. The vomiting subsided shortly after the exhibition of the opium, and the patient passed a comfortable night. On the day following she was free from pain, and able to take her diet; the bowels not having acted, a common enema with castor oil was given. Whilst the patient was being moved in her bed in the afternoon, hæmorrhage to the extent of ten ounces suddenly occurred. On the house-surgeon removing the dressings, arterial blood welled up profusely; but when the sutures were cut away, and the edges of the wound separated, the hæmorrhage ceased. By the advice of Mr. Luke, who happened to be in the wards, a small piece of sponge was placed in the wound, and confined with a compress and bandage. The hæmorrhage did not recur. Two days intervened without the action of the bowels, a turpentine injection having been ineffectually administered on the second day. On the third day free evacuations occurred after two 3j. doses of magnes. sulph. The action of the bowels was followed by great debility. The quantity of wine was increased to eight ounces daily, and strong broth and light pudding were added to the diet. The compress was removed on the third day after its application, and the wound was poulticed. Erysipelas succeeded, and extended over the abdomen and around the lower part of the back. Collodion was applied all over the affected surface, and a small quantity of brandy and porter was given in addition to the wine. Under this treatment the erysipelas sub-

sided, a small abscess having resulted over the lower part of the sacrum. The wound had healed thirty-eight days after the operation, and the patient left the hospital a week afterwards.

Remarks.—There are several interesting points connected with the above case. The long period that the hernia had been down, the great constitutional depression of the patient, and the almost entire absence of pain, led to the inference that the protruded gut was possibly in a gangrenous condition. This diagnosis of course suggested the propriety of not having recourse to the taxis, and pointed out the necessity of not attempting reduction without having laid open the sac, and previously inspected the condition of the strangulated bowel. As the gut, however, had not entirely lost its lustre, and no fæcal odour could be detected, it was replaced as gently as possible into the abdomen, the impediment to its return having been removed by the free division of the neck of the sac and Gimbernat's ligament. It is not probable that the hæmorrhage came from any large vessel, such as the epigastric or obturator; for, had such been the case, bleeding would no doubt have occurred, at the time of the operation, to such an amount as to have directed the attention of the surgeon to it. It came, in all probability, from one or more of the superficial branches of the femoral artery, which did not bleed at the time of the operation, owing to the all but fainting condition of the patient; which state was sufficient temporarily to suspend hæmorrhage from vessels of such a calibre, but would, in all probability, not have done so from the obturator or epigastric. The administration of a purgative was not had recourse to till the diet and stimulants administered remained undisturbed on the stomach, and the process of digestion had been re-established. The amount of stimulus required in this and similar cases, in order to conduct them to a favourable termination, is worthy of attention.

PISTOL-SHOT WOUND.

A lad, aged 10 years, came under the care of Mr. Adams, having received a wound in front of the left axilla. It was irregularly oval in outline, two inches in length, and one in breadth. It was situated nearly over the outer third of the great pectoral muscle. Its borders were irregular, as also its centre, which was dark and apparently charred. Several small shot and a piece of wadding were removed from the bottom of the wound. The finger could be passed from within the wound over the clavicle, so that the pulsation of the subclavian artery could be distinctly felt.

It appears that the boy had gone out, in company with his brother, to shoot at birds, and that, by some accident, the pistol had dropped, gone off, and the contents lodged in front of the chest, inflicting the wound described.

Considerable constitutional disturbance supervened, and for two nights after the accident he suffered slightly from delirium, having had violent sickness immediately after his admission. On the second day there was great tenderness around the wound, and an erysipelatous blush extended around it as far as the lower part of the neck, the sternum, and deltoid muscle. This had subsided on the third day, and a small quantity of pus appeared along the circumference of the wound, indicating the commencement of the process of separation of the sphacelated structures within it. The separation of the slough was complete on the sixth day, and, on its removal, there was a space in which a walnut could be placed, limited below by the irregular border of the pectoral, covered over by healthy granulations. The constitutional symptoms had now lost their intensity, and, as there was a regular pulse, clean tongue, and a good deal of debility from the depressing treatment that had been adopted in the first instance, the patient was ordered meat and bark. The wound had perfectly healed in six weeks, when the boy left the hospital. The wound was, in the first instance, poulticed, and, on the separation of the slough, dressed with strips of lint soaked in a dilute solution of chloride of lime.

Two months after the accident, the cicatrix appeared depressed, and firmly adherent to the subjacent tissue. The boy had perfect power of moving the arm over the chest, and the only annoyance he complained of was a slight pain in the scar when the great pectoral muscle was put on the stretch by the action of the deltoid and trapezius. Thus, notwithstanding that two square inches of the pectoral muscle had sloughed away, no perceptible diminution in power or range of action had resulted. N. W.

SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON COMPARATIVE OSTEOLOGY.

BY RICHARD OWEN, F.R.S.

Hunterian Professor to the College.

THIS AFTERNOON, MARCH 22.—Lecture IX.—Skeletons of *Crocodilia*. Osteological Distinctions between Crocodiles and Lizards. Characteristics of the Vertebræ in Different Regions of the Crocodile. Determinations of the Bones of the Head. Complex Eustachian Canals. Scapular and Pelvic Arches and Extremities. Antiquity of the Cheloniun Modifications of the Vertebrate Skeleton, and their Manifestation by Extinct Species of Gigantic Size.

TUESDAY, MARCH 25.—Lecture X.—Skeletons of *Chelonia* Solid Texture of the Bones in this Order. Structure, Development, and Homologies of the Carapace and Plastron. Peculiarities of the Cervical Vertebræ. Bones of the Head. Edentulous Beak-shaped Jaws. Modifications of the Skull in Marine and Terrestrial Species. Scapular and Pelvic Arches and Extremities. Antiquity of the Cheloniun Modifications of the Vertebrate Skeleton, and their Manifestation by Extinct Species of Gigantic Size.

THURSDAY, MARCH 27.—Lecture XI.—Skeleton of *Birds*, essentially a Modification of the Saurian Type. Texture and General Characters of the Bones. Development and Extent of the Air-cells in the Skeleton: Ratio of Pneumaticity of the Bones to the Powers of Flight. Rapid and Complete Ossification. Extensive Anchylosis of the Bones. Characters of the Vertebræ. Cervical, Dorsal, Sacral, Caudal. Ribs and Sternum. Fixation of the Trunk. Length and Flexibility of the Neck related to Want of Prehensile Power of the Anterior Extremities, to the Functions of the Beak, and the Position of the Food. Analysis of the Pelvis of Birds: Homologies of its Constituent Bones. Utility of the Separation and Elasticity of the Pubic Bones. Relation of the Anchylosed and Expanded Caudal Vertebræ to Flight. Determination of the Bones of the Scapular Arch; Os Humero-scapulare; Modifications of the Bones of the Wing, and especially those of the Segment corresponding to the Hand in relation to Flight. Bones of the Leg: Determination of the Tarsus, Metatarsus, and Toes. Analogy between the Metacarpus and Metatarsus. Numerical Relations of the Toe-Phalanges: their Constancy exemplified in the Didactyle Foot of the Ostrich. Summary of Physiological Relations of the Bones of the Trunk and Extremities in Birds.

SATURDAY, MARCH 29.—Lecture XII.—Osteology of *Birds* continued The Skull; its Special Characters and Relations to the Habits and Exigencies of the Class. Smooth Sutureless Cranium: its Fossæ and Foramina. Advantages of the Single Occipital Condyle. Moveable Articulation of Cranium with Face. Mechanism for such Motion by the "Ossa Quadrata," "Homoldea," and "Cœnamaleantia" of Ornithotomists. Varieties in the Size and Form of the Upper and Lower Mandibles: their Relations to Food and Habits. Special Homologies of the Cranial Bones of Birds. Determination of the Mastoids and Prefrontals. General Homologies of the Cranial and other Segments of the Skeleton, and their Relations to the Archetype. Application of the Osteology of Recent Birds to the Restoration of Extinct Species. Large and Unexpected Accessions to Ornithology from these Researches. Reconstruction of Dinornis, Palapteryx, and Notornis. Antiquity of Birds on the Earth's Surface shown by Fossil Foot-prints or "Ornithichnites."

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	March 22.—	GUY'S HOSPITAL PHYSICAL SOCIETY. Eight o'Clock.
		ROYAL BOTANIC SOCIETY. Quarter to Four o'Clock.
		MEDICAL SOCIETY OF LONDON. *Subject*:—Dr. Forbes Winslow, "On Prison Discipline in relation to its Influence upon the Health of the Body and Mind." Eight o'Clock.
Monday,	March 24.—	GEOGRAPHICAL SOCIETY. Half-past Eight o'Clock.
Tuesday,	March 25.—	ROYAL MEDICAL AND CHIRURGICAL SOCIETY. Half-past Eight o'Clock.
		ZOOLOGICAL SOCIETY. Nine o'Clock.
Wednesday,	March 26.—	GEOLOGICAL SOCIETY. Half-past Eight o'Clock.
Thursday,	March 27.—	ROYAL SOCIETY. Half-past Eight o'Clock.
		SOUTH LONDON MEDICAL SOCIETY. Eight o'Clock.
Friday,	March 28.—	ROYAL INSTITUTION. *Subject*:—Mr. Nevil Story Maskelyne, "On the Photographic Characters of Oxygen." Half past Eight o'Clock.
Saturday,	March 29.—	MEDICAL SOCIETY OF LONDON. *Subject*:—Dr. T. Snow Beck, "On the Symptoms, Diagnosis, and Treatment of Functional Diseases of the Uterus." Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, MARCH 22.

THE IRISH MEDICAL CHARITIES BILL.

THE Medical tendencies of London and Dublin are purely practical; those of Edinburgh more theoretical. Had, then, the University and the College of Physicians in Ireland

thrown open their degrees to education, and not to formulæ, when the admirable system of clinical instruction was introduced by Graves and Stokes, at the Meath, and ably followed up by Greene, at the Richmond, Corrigan and Hunt, at Jervis-street Hospital, and Sir Henry Marsh, in the medical wards of Steevens's,—when, from the facility of procuring subjects, and the attractive lectures and demonstrations of Harrison, Jacob, Carlile, M'Dowell, and Alcock, Dublin became the chief resort in Great Britain for anatomical students; when the surgical teaching of Colles and Wilmot at the school of the College of Surgeons, Carmichael and Adams at the Richmond, Cusack and Porter in Park-street, and Kirby in his own private school, brought many hundred pupils to the Irish metropolis—the Scotch Universities would not have been the chief licensing emporium for Irish physicians, nor would the Queen's Colleges have ventured to introduce Medical Schools, or a new Faculty of Medicine. Verily, there were "giants in those days" among the medical teachers in Dublin. Reforms are slow in all Universities—they have been particularly tardy in that of Dublin. Not only has Trinity College held out against all improvements in its Medical department, but its Board has from time to time, during the last thirty years, deprived its Medical Professors of many of the emoluments which they formerly enjoyed, while the large incomes which it is said the heads of the University possess, are not curtailed. Within the last two or three years, chiefly, we believe, through the instrumentality of its eminent Regius Professor of Physic, some changes in granting medical degrees have taken place, and others are contemplated, but, to be effective, they must be extensive, and quickly brought into operation.

One consequence of the condition which we have described is, that the great bulk of the physicians of Ireland holding Scotch degrees, those in the North from Glasgow, St. Andrews, and Aberdeen, and in the remaining provinces from Edinburgh, have not their interests properly represented by any corporate body of sufficient influence with the Legislature to induce attention to their claims. There were but few public situations in Ireland to which the pure physician was eligible by law; and the few places to which the Fellows and Licentiates of the College of Physicians were by Act of Parliament entitled, partly from the paucity of men, and not a little from the apathy of the College, were seldom filled up.

While a large number hold both degrees, the great mass of medical men in Ireland are surgeons. Under the old apprenticeship system, the Irish surgical diploma was difficult of access; but then the preliminary education was superior; the course of study more extensive; the opportunity enjoyed by the apprentice for acquiring a practical knowledge of his art by residence in a large metropolitan hospital, or even an infirmary, was greater; and the examination was more severe than at present. The expense certainly was heavier, and the time required longer; but generally the men were of a superior class, and, backed by the personal influence of their masters, the *prestige* attached to their College, and certain privileges enjoyed under Acts of Parliament, they possessed both in town and country the entire surgical practice of Ireland. The great upholder of this school was Abraham Colles.

In the metropolis, no one except a member of the College has ever held a surgical hospital, and consequently, none other has ever occupied a prominent position there. Until fever hospitals, and the hospitals attached to workhouses were erected, the only medical charities in Ireland affording in-door relief were the county infirmaries,—very noble institutions, admirably managed, well supported, and several of them at present possessing private property. They were, and still are, the exclusive privilege of the members of the College of Surgeons, and the men who fill them are we believe, without a single exception, derived from the class of apprentices to which we have already alluded. The salary of a surgeon to a county infirmary may be taken at an average of 200*l.* a year. According to the 5th Geo. III. c. 20, they each received 89*l.* 1s. 10d. from the Treasury, and when the infirmary is situated (which it almost invariably is) within five miles of the county gaol, they also received 94*l.* from the County by Presentment as infirmary surgeons, under the Grand Jury Act 6 & 7 William IV. sec. 86. For this sum they were required to attend all persons within the gaol without fee or reward. Where the gaol was more than five miles distant, such attendance was not required. In many instances the Grand Jury also appointed a physician to the county gaol. In addition to these emoluments, most infirmary surgeons were provided with a house and garden, &c. From the position which these advantages gave,—in many instances from superior education, and, in all, their greater amount of practical knowledge,—these gentlemen naturally became the operators and consultants in their respective districts.

According to the late Medical Charities Bill, the county infirmaries of Ireland (many of which, like the county towns themselves, are most disadvantageously located) were to have been turned into district hospitals, and their present occupants rendered amenable to all the provisions and enactments proposed in the Bill. To omit them, it has been stated, would render the Bill ineffective as a great sanitary measure. In this opinion we quite agree; but to those who hold it we would say, so is the omission of all the Poor-law hospitals, which are public charities just as much as the infirmaries, but over which the proposed Board of Health Commissioners were not to have exercised the slightest control, neither were the Inspectors under that Board allowed to set foot within them without the special direction of the Poor-law authorities. According to the spirit of the late Bill, the present occupants of public medical situations were to have been left in possession of, or re-elected to, the newly-created hospitals or dispensaries in their districts. With respect to the dispensary men, whose salaries would be increased and put upon a more secure footing, all this was a great advantage. Not so, however, as regards the infirmary surgeons; they conceived that their interests were at stake, and consequently they most effectually opposed the Bill. Indeed, we believe it was chiefly owing to their representations that Lord Roden and others in the House of Peers stopped the measure. Let us see what they would lose by it. Those who possess extensive practice, owing to their positions, cannot well lose it from the effects of rival institutions in the shape of other hospitals springing up among them, but they will risk the emoluments at present resulting from their situations. According to the 21st section of the proposed Bill, the sum granted by the Act of George III., is secured to the persons holding office at the time of the passing of the Act; but by the very same section they lose the 94*l.* per annum derivable by presentment from County Cess, and consequently, in the present impoverished state of Ireland, the occupants of these long-established and well-tried institutions cannot be expected to remain quiescent under the loss of so much of their incomes. Under the 12th section, line 6, the Commissioners might, if they thought fit, adopt the present infirmaries as District

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Hospitals, and then the Parliamentary Grant would be secured for life, on the re-appointment of the present men; but suppose the Commissioners did not think fit to adopt any particular infirmary, then the Treasury grant was not so secure. Moreover, as there is no provision for the hospitals of gaols set forth in Sir William Somerville's Bill, and the powers of the grand juries are becoming cramped year by year, the great probability is that the infirmary surgeons would, on the whole, be losers. If the infirmaries were adopted as district hospitals, would not the surgeons of such be entitled, in addition to their Parliamentary Grant, to the usual salaries of other district surgeons? Probably they would, but it is not so stated in the Bill, and therefore they are fully justified in opposing it. It was unwise not to have attended to the claims of these gentlemen; for we do firmly believe, that if their present well-earned salaries had been for life by the Bill, it would have been the law of the land months ago, and the medical charities of Ireland would not be in the miserable and neglected condition they are at present. The infirmary surgeons are a body of highly respectable gentlemen, and, possessing as they do, the great bulk of the surgical practice in the country parts of Ireland, their claims should have been more fully considered by the medical advisers of those who drew up the Bill. They also feel that their interests have not been sufficiently watched over by the Council of their own body. In this, however, we think they expected too much from a conclave so many of the individuals in which have enough to do to watch over their own special interests with regard to any Bill relating to the medical charities of Ireland.

Upon a future occasion we shall consider the origin and present position of the General Practitioners in Ireland, together with the claims of the Apothecaries, both as pharmaciens and "medical men."

RUPTURE OF THE UTERUS AND REMOVAL OF INTESTINE IN LABOUR.

Some time since, it was our painful duty to comment on two or three instances of laceration of intestine that occurred in this country during delivery in labour. Another of these frightful cases has recently happened in Ireland, and appears to have been attributable to the shameful incompetency of the accoucheur. The comparative frequency of these accidents, or, at any rate, the greater frequency of their exposure, suggests to Practitioners in Midwifery the necessity of giving special attention to the conditions under which this lesion may occur, and of exercising the most extreme caution in their manipulations to avoid the possibility of this shocking result. In one instance the practitioner was in considerable practice and repute; and although, in all the cases, it is manifest that the operators were guilty either of rashness or gross ignorance, yet the circumstances cannot fail to impress the minds of the most skilful with a deeper sense of the hazard they incur. The errors of ignorance are the lessons of the wise. In the particular instance under observation, the cause of the injury was obvious, and the rashness of the operator highly culpable. Such a case, in all its barbarity, could not possibly occur to a practitioner possessed of the ordinary amount of medical qualification.

It appears that a woman, Agnes Hewitt, residing three miles from Cavan, was taken in labour about ten or eleven o'clock a.m. on the 11th of December; that a midwife arrived on the evening of the same day, and, discovering an arm presenting, declined to interfere, further than to attempt to return the arm, and advised that a medical practitioner should be sent for to effect the delivery. For various reasons, the several physicians in Cavan objected to attend the case, although, for their credit's sake, it is but just to state that it does not appear that they were informed of the poor woman's perilous condition, and the husband engaged a Mr. Nalty, a licensed apothecary, who had attended a course of lectures on Midwifery, but who does not seem to have been much engaged in obstetric practice. In reciting the acts of this person we shall denude the case of all conflicting testimony. The evidence showed that he was in the house about one hour and a half, and during that time turned the child and delivered; but that after the birth of the child he pulled away a large quantity of some substance, which Dr. Halpin and others state to have been about *thirty-six inches of intestine!* which he placed in a basin of water. One witness states that Mr. Nalty at first called this mass the PLACENTA! On being contradicted by the witness, he "called it some name, and said the rest would come." "*He put back the viscera, which were on the bed.* He shortly after went away." *The placenta came away about half an hour after Mr. Nalty had left the house.* The woman died at five o'clock p.m. on the 13th, about thirty hours after the operation. This brief statement proves Mr. Nalty to have been utterly incompetent to undertake the most ordinary case of Midwifery, and yet he had the hardihood to venture to perform an important surgical operation! With the structure under his eyes he was unable to distinguish between the intestine and the placenta, a degree of ignorance hardly credible, and beyond excuse. He then prevaricated, and with a perfect knowledge that the case had not terminated, left the woman with the placenta still in the uterus, to undergo the further risk of death by hæmorrhage, as if enough had not already happened to insure a fatal result. We hardly remember to have heard of such a combination of ignorance, rashness, and neglect. A *post-mortem* examination was made by Dr. Coyne, and the uterus was found to be ruptured,—a lesion that might have happened in consequence of the action of the uterus upon a fœtus lying transversely during the protracted period of twenty-four hours, and we therefore do not impute blame to Mr. Nalty for this misfortune. It is just possible, too, that the intestine, protruding into the cavity of the uterus, might have become entangled about the fœtus, and accidentally abstracted; but, admitting so much in Mr. Nalty's favour, he still deserves the strongest reprehension for undertaking a responsibility for which he was wholly unqualified.

Judging from the fact, that three feet of intestine were actually wrenched out of the woman's body, and that Mr. Nalty put back *a portion lying on the bed*, it would appear that the poor woman was almost wholly disembowelled by the operator. The trial ended in sentencing the prisoner to six months' imprisonment, afterwards reduced to the half of that period,—a punishment certainly not too severe for the offence. We hope that we shall not be again required to record such a lamentable case.

If we wanted an argument to convince the public of the necessity of adopting a better system of medical instruction, we should point to this case of Nalty's, and others of a similar character. It is a burning disgrace to our institutions, that not one of them should think it its duty to examine candidates as to their proficiency in the practice of Midwifery, and thus afford some assurance to the public that those who undertake the serious duties it involves are qualified for the onerous task. While condemning the unskil-

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fulness of the ignorant intruder, we must not be unmindful of the imperfections of our intra-professional discipline, nor overlook opportunities of enforcing the necessity of improvement in our educational institutions.

THE REPEAL OF THE WINDOW-TAX.

The repeal of the window-tax will be one of the triumphs achieved by the Medical Profession for the good of the public. Always busy in the interests of our neighbours, we do not find that the public reciprocate our good-will. Our Profession, both sectionally and in the aggregate, have grievances to redress; and, although we have long besought the aid of our lay brethren for their removal, yet we have not succeeded either in awakening their sense of justice or stimulating their gratitude.

The public continue as indifferent to every useful improvement in the institutions of our Profession, as if we were a colony of savans in the Island of Lilliput.

We do not repine at this neglect, and we should be far from counselling, as an act of retaliation, an indulgence in a similar spirit of selfishness. It is nobler to confer benefits without hope of reward, than to bargain for gratitude and sell our services at public auction. The lustre of beneficence is paled by the fogs of a huckstering ambition. The public, however, should never forget that the boon of untaxed light and air will have been gained for them by the indefatigable exertions of medical men, who, through a series of years, have been writing and lecturing upon the pernicious operation of this duty, until Government, assailed on all sides, and ashamed of the inhumanity of which they were the agents, have determined to blot out the Act from the statute-book, and legislate upon the humane and indestructible principles of sanitary science. That this tax would at this time have been repealed but for the urgent remonstrances of sanitary philosophers, is most improbable. Although the public have agitated against its maintenance for many years, their efforts have had no success. The parochial meetings assembled at the opening of each successive Session of Parliament have put forth their resolutions, and by the time the last cheer has died away from the lips, the spirit has fled from their protests. There was nothing like coherence, universality, and determination in their acts, until sanitary science supplied them with an argument. Sir Charles Wood has confessed himself conquered by philosophy; and, while he yielded on the one hand to the authority of science and the injunctions of humanity, he still maintained a combat on the other with a legion of petulant financiers. His difficulties are not the subject of our comments; but, now that this odious tax is doomed, we venture to refer with pride to the noble part which our brethren have taken towards its abolition.

It is difficult to conceive how a tax so injurious and fatal in its influence could have been permitted to continue for so many years to vitiate the habitations and destroy the lives of the people. Men have been vegetating and working in low, dark, damp, dingy holes, from year to year, without thought of the poison they were inhaling into their frames, or of the diseases they were generating for their offspring; growing daily paler and weaker, seeing their children dropping by their side, one after another, like buds of promise withered by an evening blight, and yet apparently insensible to the causes that spread among them so much suffering and woe. Many spots in our large towns are the abode of a perpetual plague. The Destroying Angel, wrapped in a noisome mist of dank and fetid exhalations, continually hovers over the house-tops. Fever, consumption, atrophy, cancer, unintermittingly corrode and destroy. Among the evils productive of these maladies, we believe an insufficiency of light and of pure air to be the chief; and we therefore hail the repeal of the window-tax as one of the most precious blessings which science could bestow on our suffering and fever-stricken population.

PUBLIC URINALS.

Throughout the wide expanse of the Park there is not a single public urinal. If the Exhibition is not well provided with these conveniences, in spite of all such notices as—"Decency forbids," "The police have orders," and the police themselves, the immediate neighbourhood of the Crystal Palace will be one vast nuisance. There are few people who have not experienced the awful inconvenience of the Parks in this respect; and from the Exhibition, in any direction, to very near Park-lane, there is no place where relief can be obtained. And not only is this the case in reference to the Parks, but it has long been felt to be a crying want in all our large cities and towns—especially in our great metropolitan thoroughfares.

Why not erect small turrets, like sentry-boxes, as in the Champs Elysées, and we would recommend with crystal outlets, which would be almost indestructible and easily be cleansed? In Marseilles "*lieux d'aisance*" are to be found in every street; and in Paris, the bridges, the gardens, and all places of amusement or of recreation are comfortably provided.

It has been urged, that foreigners are guilty of indecent habits; that they have not cultivated the same control over their sphincters as ourselves. Be it so; but now we have to deal with foreigners; and even for them—although we urge the want is imperious for *all*—the necessary conveniences should be provided. The public health would be improved, and the public themselves relieved from the necessity of disregarding the injunction to "commit no nuisance," or of perpetrating a far greater nuisance.

REVIEW.

Some Account of the last Yellow Fever Epidemic of British Guiana. By Daniel Blair, M.D., Surgeon-General of British Guiana. Edited by John Davy, M.D., F.R.S., London and Edinburgh, Inspector-General of Army Hospitals, &c. London: 1850.

The author of this work has been in full practice in the colony of British Guiana since the year 1835; and, moreover, between 1842 and 1847, had the superintendence of its public hospitals, in which 28,678 cases were treated, 12,852 of them being yellow fever. In consequence of the author's continued residence at a distance from home, the care of conducting this work through the press was entrusted to Dr. John Davy, who has added, at the request of Dr. Blair, notes on those portions of the subject respecting which his own experience enabled him to speak with authority.

In the preface Dr. Davy states, that he considers this work as tending to prove,—

"1st. That the disease is of local origin, and not infectious or contagious.

"2nd. That its exciting cause is limited as to space of action, and may be avoided by change of place.

"3rd. That the newly arrived from a cold climate are most liable to be attacked by it.

"4th. That the natives of the African race and of the mixed coloured races are comparatively little liable to contract the disease.

"5th. That whites coming from warm climates are less liable to contract the disease than the same race coming from warmer climates.

"6th. That the disease commonly does not recur in the same person.

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"7th. That yellow fever has been variously modified, and subject to many complications.

"8th. That although it has invaded bodies of men quartered in healthy situations, yet most commonly it has broken out where the drainage has been defective, where there has been crowding and defect of cleanliness, &c.

"9th. That the disease hitherto has been of periodical recurrence, not yet calculated, its cause being unknown. No uniform kind of weather, as far as observations hitherto extend, has been connected with its appearance."

British Guiana lies between the 6th and 8th parallel of north latitude; it is situated below the level of the sea at high water of spring tides. Its soil is argillaceous, nearly destitute of lime, but more or less charged with oxide of iron and sea salt. It is distinguished by the luxuriance of its vegetation. The temperature is uniform, and the air constantly charged with moisture.

Georgetown is the capital of British Guiana, and it is in that city that Dr. Blair resides. The epidemic of yellow fever recorded by Dr. Blair commenced there in 1837. At that time within the city of Georgetown, he says, in addition to the private drains,—

"There belonged to the public thirty-one miles of open trenches, varying in width from two to ten feet, communicating by sixty-two tunnels, and these required to discharge the surface water of the city alone."

Georgetown contained at the period referred to less than 20,000 inhabitants. Its streets were wide; the houses, built of wood and stilted several feet from the ground on pillars, were generally situated in gardens and detached from each other. The town extended over a space of two miles. Water-street and Robbs-town, however, formed an exception to this general description, for in them the houses were and still are in contact, and, instead of open pillars, the ground-floors are occupied as shops. One side of Water-street is built on the bed of the river itself, supported above the level of the water by piles and platforms. It is called the "mud lots" of Water-street. From the back of each lot projects

"A 'stelling,' or landing-wharf, composed of piles, with a platform from five to seven feet broad, and extending beyond the buildings into the shelving clay-bed of the river."

"At the angle formed by the river and ocean embankments and to the north of the city are the military grounds; to their east and north-east are many hundred acres of jungle. To leeward of the city, and out in the river stream, at prescribed lines of distance from the shore, lie the mercantile shipping."

These localities were the grand seats of the epidemic. A little before and after the autumnal equinox is the most unhealthy periods of the year at Georgetown, the vernal equinox and the succeeding two or three months the most healthy. The climate in regard to heat is very uniform; the mean temperature of March 17th, 1843, was 81°125; of June 21st, 81°125; of September 21st, 82°375; of December 21st, 81°75; of March 21st, 1844, 80°50.

The population of the colony is of a motley description. It includes Europeans, Americans of every hue, Africans, and East Indians. The inhabitants are well-fed, a dwelling may be erected at a trifling cost, and clothing is to many an incumbrance.

Fish, and especially salted fish, is largely eaten by all classes. "A great deal of 'drinking' is indulged in."

As to the diseases of British Guiana, Dr. Blair states that calculus, diabetes, rabies, and contagious fevers, excepting the exanthemata, are there unknown—the first cases of scarlatina occurred in 1844—the exanthemata even are of rare occurrence, and mild in character. From tubercle, dyspepsia, aneurism, and malignant tumours, the colonists are also nearly exempt.

"While," Dr. Blair says, "the air is so bland that the knee or other joints are unhesitatingly opened, if required, for the escape of inflammatory or hydropic secretions. The subcutaneous operation is unnecessary." Compound fractures of the severest kind do well. Flesh wounds heal readily by the first intention.

The character of the endemic diseases is shown by the large quantity of quinine required in the colony. There are imported into Demerara and Essequibo annually, on an average, twenty grains for each inhabitant. "The great endemics of the country," says our author, "are malarial fever and ulcer." The types of intermittent met with are the quartan, more commonly the tertian, and yet more frequently the quotidian. These fevers differ, in Dr. Blair's opinion, "*toto cœlo* from the yellow fever." There seem to be two species of malaria,—the one anæmiating, the other septic. The latter gives rise to a state of constitution manifested by bleeding gangrenous ulcers. Under the influence of the former, "the complexion becomes etiolated, even without an attack of intermittent; the spleen gets enlarged, the cellular tissue infiltrated, and dyspnœa and palpitation supervene from mere whiteness and thinness of blood." Gout, rheumatism, tetanus, painters' colic, pneumonia, and pleurisy, and dysentery, as a sequel of intermittent fever, are common.

The epidemic of yellow fever described by Dr. Blair commenced in Georgetown, in the first week in April, 1837, *i.e.*, in the healthiest month of the year. The first case witnessed by himself was that of an Irishman, named Inch, resident in the colony two months, and living in one room on the ground floor of a house in Water-street. This room served at once as a shop for the sale of tobacco, salt fish, and a variety of other articles, and as bedroom for the man. "I well remember, when I made my first visit to him, how my nose was offended by the sickening smell of rotten salt fish, tobacco, damp, and dirt."

Inch's brother, living in the same street, was the next attacked, and then a man, also an inhabitant of Water-street. Two cases had been attended by Dr. Alleyne before Dr. Blair saw the man Inch. One of these two occurred at the corner of Water-street; and the other, in the latter.

The chief ravages of the disease were all along confined to Water-street and its vicinity, "although a few straggling cases were to be met with in the back part of the town." "*After* the appearance of the disease in the city, it was noticed in the mercantile shipping."

The termination of the epidemic was preceded by the prevalence of mild cases—

"Denoting that the virus had become gradually weaker; till at last, in the great rainy season of 1845, it entirely ceased, superseded by a slight, but a very general influenza."

The rate of the mortality of the variety termed by our author *febris flava gravior*, was 24·60 per cent., while, taking all the cases of the fever, it was only 13·3 per cent.; it was rather greater in individuals under 30 years of age than in those above that age.

With reference to the question of contagion, Dr. Blair observes:—

"There was no difference of opinion to excite discussion here, for there was not a single person, professional or non-professional, in the length and breadth of the colony, who, in 1838, after the first alarm had subsided, had the least suspicion of contagion in our yellow fever."

In proof of this position, Dr. Blair adduces some strong but *general* statements.

The chief symptoms and the progress of the disease were as follow:—Alternate flushings and rigors; in twenty-four hours, a perfect hot stage; supra-orbital headache; redness of nares, lips, and tip and edges of the tongue; vomiting of scanty yellow bilious fluid; dark and fetid alvine evacuations; tenderness of epigastrium. At the expiration of two or three days the skin became cool and pleasant, the tongue began to clean and grow less red, thirst abated, and there was some disposition for food; both the patient and the bystanders were satisfied of his convalescence. By-and-by, however, the eyes became dull orange red, the countenance assumed a sottish appearance; the complexion had a dirty, greasy aspect; the capillary circulation of the surface was languid; the stomach became irritable, large quantities of clear acid fluid being ejected.

In a few hours black specks could be seen in the vomited matter, as if a pinch of snuff had been scattered in it. The yellow hue of the surface, at first limited to the conjunctiva, becomes more marked, epistaxis or ecchymosis often occurred, and the patient, turning perhaps in bed, an involuntary gush of black vomit took place; bloody oozings from the nose, ears, or anus followed; the skin then became damp and cold, though the patient complained of heat; the fingers were shrivelled; the pulse grew more feeble, till it was unable to be felt, and finally death closed the scene, the intelligence being unclouded, and the muscular powers but little impaired to the last, and the patient telling those around that he was getting quite well.

Our limits do not permit us to follow Dr. Blair through his account of the appearance observed after death in the ninety-seven cases he examined. His researches have not enabled

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him to assign to the disease any anatomical character, properly so called. Peyer's patches were healthy. In the collection of drawings, however, at Fort Pitt, is one of the ileum in yellow fever by Dr. M'Diarmid, in which extensive ulceration of those bodies, and enlargement of the mesenteric glands are depicted, *i.e.*, the anatomical character of typhoid fever.

The period of incubation varied in the epidemic described by Dr. Blair, from twenty-four hours to fourteen days. The average duration of a fatal attack was 7·08 days; of a non-fatal attack of the variety termed gravior 5·35 days; occasionally, however, the disease was prolonged till the termination of the third week; in these last cases the stage of apparent convalescence was prolonged, so that the patient *appeared to suffer from two attacks*. The reader will observe, that in this as in some other particulars, the disease resembled the British relapsing fever—a resemblance originally pointed out by Dr. Cormack, in his account of the epidemic of 1843. A chapter on Treatment, and several drawings made by a sailor, a patient in the hospital, conclude one of the most able and temperate works it has ever been our satisfaction to read on this most anger exciting disease.

We may remark, that when at Fort Pitt museum some little while since, we looked over the collection of unpublished drawings forwarded to England by Dr. Blair, illustrating the pathological appearances in yellow fever, and, although not artistic or finished, the drawings bear internal evidence of truthfulness.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

THE SPLENIC BLOOD-HOLDING CELLS.

The opinion originally maintained by Gerlach, (in opposition to Kölliker and Ecker,) that the large cells, filled with blood corpuscles, which are found in the spleen, are formation cells of blood particles, has been again advanced by this observer in the last part of his "Handbuch." The principal argument on which he bases this statement, and on which he objects to the opinion of Kölliker, (that the blood corpuscles in such cells are in process of degeneration,) is founded on the presumed occurrence of these cells in the spleen corpuscles, which are themselves, according to Gerlach, connected with the lymphatics; so that it would, from this circumstance, appear more probable that the blood corpuscles were rather being formed than being destroyed. Kölliker and Ecker have, however, denied the correctness of these assertions, and state that the blood-holding cells are contained in the pulp, and not in the corpuscles; and also that the corpuscles are not connected with the lymphatics. Gerlach also lays especial weight on the argument, that in the liver of embryos, which has been held by many physiologists to be a blood-building organ, the same blood-holding cells are found as in the spleen. Kölliker and Ecker state that this is only exceptionally the case, and that when it occurs it is in consequence of accidental apoplexies. In one case, in an incubating fowl, Kölliker found similar extravasations, consequent on false aneurisms in the brain. Kölliker explains, in the same way, the occurrence of blood-holding cells in the lungs of new born children, which Köstlin has cited as examples of the development of blood corpuscles in cells.

Henle is apparently inclined to agree rather with Kölliker and Ecker than with those who adopt the other opinion, and remarks, that the appearances seen in the cells in question seem much more like retrogression than formation of blood particles. In extravasations of blood, isolated blood particles can often be seen passing into pigment granules, but such pigment granules never themselves originate a cell-wall.—*Henle, in Canstatt's Jahres Bericht.*

THE ORIGIN OF THE LACTEALS.

Henle, in the last number of *Eisenmann's Jahres Bericht*, sums up the opinions which have been advanced during the last year as to the commencement of the lacteals in the villi. Gerlach and Frerichs agree with Henle himself, that the central vessel is the true commencement. In a very perfect injection by Gerlach, in which the blood-vessels remained quite free, the central lacteal was filled, but no trace of net-work could be seen. Gerlach has also once seen in the embryo of a pig a dilated extremity. Frerichs, on the contrary, has very often seen a club-shaped extremity. During digestion the epithelium cylinders become filled with fine fatty molecules, which gradually penetrate into the villus till they reach the dilated end of the lacteal. The appearance of real retiform lacteal vessels is sometimes caused, as noted by Handfield Jones, by the arrangement of the fatty molecules in lines. Nuhn, with Krause, differs from these observers, and has seen a fine net-work chiefly at the point of the villus. Henle considers that the appearance of a lacteal net-work may arise from accidental heaping up of chyle-molecules outside the lacteals, either in spaces between the epithelium or around the blood-vessels.—*Canstatt's Jahres Bericht, von Eisenmann.*

THE MUSCULAR FIBRES IN THE SPLEEN.

The presence of muscular fibres in the coat and trabecular structure of the spleen of many animals has been perfectly established by Kölliker. Gerlach admits their existence in pigs and sheep, but denies that they occur in the human subject. The peculiar fibre, with a lateral dilatation in which the nucleus lies, and which was first noticed by Günsburg, and held by him to be epithelial particles of the splenic vein, has elicited some contradictory opinions. Gerlach denies its muscular nature, and Kölliker has somewhat modified his first statement of the significance of those structures, since he found that they are evidently enclosed in cells. Ecker however still holds to Kölliker's first opinion, that these peculiar fibres *are* muscular.—*Canstatt's Jahres Bericht.*

THE NERVE FIBRES.

Czermack, on treating the nerves of frogs with acetic acid, observed a kind of precipitation of fine granular matter, with here and there larger granules, within the sheaths, and believes therefore that, besides the nerve tissue, a coagulable fluid is contained with the neurilemma. — *Müller's Arch.*

THE MINUTE BILIARY PLEXUS OF THE LIVER.

The observations of Retzius and others have lately appeared to favour the view, that a true biliary plexus ramifies throughout the hepatic lobules. Gerlach's observations are, however, opposed altogether to this view. He denies both the fusing or bursting of the cells into each other, and their enclosure in a proper tunic. He regards the apparent biliary vessels which can be seen in some preparations as caused by rows of liver cells, whose divisions from the action of spirit have become indistinct. In his description of the minutest biliary conduit, he agrees with Kiernan, Theile, and Handfield Jones. The smaller biliary tubes are made up only of a structureless coat, containing long oval nuclei. From these numerous branches arise and at once form a network, which is more easily seen in the swine's liver than in that of men. After passing to a certain distance into the lobule, these branches either terminate as if abruptly cut off, or pass suddenly into wider irregularly circumscribed spaces, which extend, retiform-like, to the centre of the lobule. These wider spaces have no boundary walls, and appear to be mere spaces lying between the cells, and probably are distended by the injection used in the observation to a greater size than they naturally are.—*Gerlach, quoted by Henlé in Canstatt's Jahres Bericht.*

THE FORMATION OF MUCOUS CORPUSCLES.

Cramer describes this process, as observed in the clustered glands of the mucous membrane of the trachea. At first, on the inner surface of the structureless wall of the glands, appear nuclei (in diam. from ·0018‴ to ·0025‴,) which become surrounded with clear cells. The cells usually enclose two or three nuclei; seldom only a single nucleus. They increase in size as they pass towards the centre of the glands. After they emerge from the gland to the free surface of the mucous membrane, their albuminous contents become coagulated, and the cells become granular.—*De Penitiore Pulmonum Hominis Structura, Diss. Inaug. Berol. Quoted in Canstatt's Jahres Bericht.*

THE EXHALATION OF CARBONIC ACID.

The following summary of Scharling's important experiments on the exhalation of carbonic acid is given by Scherer:—The carbonic acid was estimated by a very perfectly contrived apparatus. A man of thirty years old was

found to expire, when remaining quiet, 12·06 grammes of carbon per hour. The same man, wielding violently a heavy iron rod, and perspiring profusely, exhaled as much as 42·2 grammes of carbon per hour. An immense increased development of carbonic acid occurs, therefore, during exercise. In two experiments with tipplers, who had taken brandy just before, the quantity of carbon was 7·045 and 10·83 grammes. In the last case, however, the individual was in exercise. Scharling also found (with Dulong and Despretz, Regnault, and Reiset,) a greater consumption of oxygen than was accounted for by the carbonic acid, viz., over a fourth part.—*Canstatt's Jahres Bericht.*

GENERAL CORRESPONDENCE.

LORD CAMPBELL'S CHLOROFORM CLAUSE.

[To the Editor of the Medical Times.]

SIR,—Lord Campbell having done me the honour to reply, in the House of Lords, on Friday, March 14, to some of the reasons which I had advanced against the introduction of a penal law respecting chloroform, I shall be obliged if you will allow me a little space for a rejoinder on the subject. As the facts and arguments in my published letter are very nearly the same as those of a leading article which appeared in the *Medical Times*, nearly on the same day,(a) I need not refer to them, but will proceed at once to Lord Campbell's reasons for retaining unaltered the clause respecting chloroform, which he states to be the most material one in his Bill.

His Lordship admits "that no strong man who made resistance could possibly be chloroformed," but adds, that "in the case of those who were not strong, and unable to resist, it might happen to many of that class that chloroform would be employed most effectually for facilitating robbery."(a) It appears very evident to me, as I had stated, that weak persons might be robbed just as easily without chloroform, or even more easily; for it would be less difficult to rob a person by force than to keep a handkerchief applied to the nose till he should be obliged to breathe sufficient chloroform to be rendered insensible, even if the robber were so tender-hearted as to decline making use of a punch on the head, or any other old-fashioned means of settling resistance.

Lord Campbell afterwards remarked, that "it stood indeed on record, that since the discovery of chloroform persons had been convicted before the competent courts of using that article for the purpose of robbery."(c) Now, in consequence of his admission, that a strong man could not be chloroformed, Lord Campbell cannot be here alluding to either of the cases in which a man was alleged to have been rendered insensible by a woman in the public streets, but to the two instances of futile attempts to administer chloroform; and these are surely not cases to call for a new enactment. It should also be remarked, that in each of these cases the attacking party was the stronger, being a man, whilst the person attacked was in one instance a female, and in the other an elderly gentleman, who, besides, was asleep in bed.

Lord Campbell's Bill having now virtually passed their Lordship's House, it will probably become the law of the land, but I feel conscious of having done my duty in attempting to prevent unnecessary legislation, and my efforts will not be without use if they prevent groundless alarm on the subject.

I am, &c. JOHN SNOW, M.D.

54, Frith-street, Soho.

ST. MARY'S HOSPITAL.

[To the Editor of the Medical Times.]

SIR,—I am somewhat surprised to find that, in spite of the very liberal opinions you maintain with regard to the Medical Profession, you have allowed the conduct of the Committee who elected the staff of Medical Officers at St. Mary's Hospital to pass not only without your censure, but with your implied approval. You know that that Committee was appointed in opposition to your own earnest remonstrances, and that *by a trick* it was carried into effect, after it had been decided by a majority of the Governors that the physicians and surgeons should be elected by the open votes of the governors. I should have thought that the proceedings of such a Committee would have been especially watched by the Arguses of our Profession. Why some of our medical journals have been silent it is not difficult to divine, but why you should stand by, and, instead of rebuking the obvious spirit of flunkeyism and nepotism that has dictated the conduct of this Committee, pat them on the back, is to myself and many members of our Profession matter of sincere and heartfelt regret. I have to say nothing personally against any of the gentlemen who have been appointed by the Committee; they are "all honourable men;" but you, Sir, know, as well as I do, that no fair verdict of the Medical Profession, judging according to the merits of the candidates, would have placed all the gentlemen who are now the officers of St. Mary's Hospital in their present position. You know very well that the Committee has not done its duty honestly or fairly. It has not done its duty to the sick and suffering who are to be brought within the walls of St. Mary's Hospital, for it has not appointed its officers according to their merits and their ability to treat disease, but according to their position in the Colleges of Physicians and Surgeons. It has not acted up to the laws of the Institution for whose benefit they were appointed, for it deliberately set aside the claims of candidates for the offices the Committee were appointed to fill, in opposition to the laws which they were directed to carry out. I think you have most unjustly reproved Dr. Cormack for his spirited conduct in resenting the gross insult offered to him by the Committee, in requesting Dr. Alderson to fill the office of physician after they had declared that no candidate would be admitted after a certain date; and it was known that Dr. Alderson was not a candidate. You have drawn attention to a clause which gives the Committee power to act as they have done; but this does not make the insult less; that clause was evidently put in for the purpose of giving the Committee power in case the candidates were so young and inexperienced as to require the aid of an older practitioner than themselves; but, so far from this being the case, there were not less than four candidates older than the two junior physicians appointed, and certainly two who were better known as teachers than Dr. Alderson, though not so advanced in years. The setting aside these gentlemen, and requesting Dr. Alderson to join the staff, can only be explained upon the ground, that one of the junior physicians, who is a Fellow of the College of Physicians in London, had a relative upon the Committee, who, at all hazards, was determined that he should be appointed. When this was determined on, the Committee proceeded on the principle of giving the Fellows of the College precedence; but as none of the other eligible candidates were Fellows, they had but one of two alternatives, either to make this very young Fellow senior physician, or to apply to some old Fellow of the College to take this appointment. Hence the appointment of Dr. Alderson and the complaint of Dr. Cormack. The Committee, instead of going to their work like men earnest for the good of the charity, and jealous for the reputation of their hospital, were misled by this *ignis fatuus* of college standing. Not only have they done this with the physicians, but also with the surgeons. The same notion which led them to protect Dr. T. K. Chambers by Dr. Alderson, led them to reject entirely the claims of Mr. Pilcher, because, according to their absurd self-prescribed course, they must have made him senior surgeon. Nothing could have been more suicidal than the course the Committee has adopted. You, Sir, must see, that an hospital so imperfectly officered, can stand no chance of taking a position in the metropolis, either as an efficient charity or a medical school. You have more than once recently called attention to the nepotism and regard for college standing, to the exclusion of professional merit, in the elections of our hospitals; and I cannot conclude, without again expressing my surprise, that this gross instance should not have received your condemnation, but have elicited your praise. I am, &c.

A GOVERNOR OF ST. MARY'S HOSPITAL.

[We cannot but admire the inconsistency of our correspondent; and that the more, since he accuses us of the same failing:—

"Nihilo sapientior ille, qui te deridet caudam trahat."

He blames the appointment of Dr. K. Chambers, but would fain have seen Mr. Pilcher senior surgeon!—a gentleman whose practice is aural, and the morganatic partner of Mr. Maule.

As regards Dr. Cormack, we know him to be a highly honourable gentleman, a sound and experienced practitioner, an accomplished scholar, and, in matters medical, an acknowledged literary authority. Moreover, he enjoys the distinguished rank of a Fellow of the College of Physicians of Edinburgh,—second to none in professional or public estimation. But, with all this, we are not aware that Dr. Cormack practises exclusively as a physician.—

ED. *Med. Times.*]

(a) See *Medical Times*, March 8.
(b) *Times*, March 15.
(c) *Times*, March 15.

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DOUBTFUL CASE.

[To the Editor of the Medical Times.]

SIR,—Your readiness to publish any facts which may be of use to the Profession induces me to send you the following, in connexion with the death of Captain R., which occurred yesterday, the cause of whose death is involved in deep mystery, so far as I and Dr. Cannon, who attended him, are aware. I am the more anxious to submit the case to the consideration of the Profession, as both Dr. Cannon and myself are disposed to attribute the cause—though not for certainty, as we were not privileged to make a *post-mortem* examination—to "spasm of the heart;" that disease which, of late, in the case of Lord George Bentinck, created a great deal of discussion, and was, in the first instance, pooh-poohed by the Profession, but which afterwards was received as a *real* and not *chimerical* pathological fact, by the light which your correspondent, G. Corfe, Esq., threw upon it, in his excellent papers, published in your Journal in 1848.

This much premised, I shall at once state the case, and allow the Profession to draw their own deductions and conclusions therefrom, feeling convinced that such cases ought to be *invariably* submitted, in order to elicit attention, examination, and, if need be, discussion. Captain R., aged 62 years, habits temperate, general health good; passed many years in India in his profession, but has been out of service for a number of years, during which time he has lived here. Rose yesterday morning in his usual health, and ate a hearty breakfast, after which he went out into the town to pay his fishmonger's bill. The morning was rainy, and the atmosphere damp. When he entered the fishmonger's he felt chilly, and, in a few minutes after, faint. He was taken to a chemist's shop, where he had given him a draught, containing sal volatile. A messenger was despatched for me, but before I arrived he was removed in a fly to his own house, where I arrived directly after he had been put to bed. I found him lying on his back, groaning much, and uttering, "Oh, this pain!" His extremities were as cold as marble, and he complained of great numbness in his arms; pulse very weak and scarcely perceptible, tongue clean and moist, no headache; bowels had been freely opened in the morning, as he had taken a pill the previous night. The pain of which he complained, was situated over the region of the heart, and from his ejaculations, and repeated and intense demands for something to relieve it, must have been of an excruciating nature. "Bleed me," "Bleed me!" he kept exclaiming; but, owing to his prostration, with this I refused to comply. I had stone bottles of hot water applied to his feet, a strong mustard poultice over the seat of the pain, ether and sal volatile draught administered, his arms and legs rubbed with camphorated spirits, and lots of bedclothes heaped upon him. In about two hours reaction began to come on, and, although the mustard poultice remained on all that time, it scarcely reddened the skin; this I did not like to see. Pain no easier, and at my suggestion Dr. Cannon was sent for. He came directly; and, after an examination and consultation together, we agreed to re-apply the mustard a little lower down, as Captain R. said the pain was removed lower, and, if not relieved in an hour, to be cupped over the seat of the pain. Hour elapsed: pain worse; reaction great; pulse throbbing and 80; headache; skin moist; great restlessness; breathing short and laborious; incessant moaning, and urgent demands for relief. He positively refused to be cupped, notwithstanding all my reasoning to the contrary. What was to be done? No alternative but the lancet, as leeches would have been too tardy a remedy in such an urgent case, and as, owing to the great reaction, depletion was called for. I therefore took about twelve ounces of blood from his arm; this was about three o'clock p.m. Fifteen minutes after, expressed himself much relieved. Ordered him an anodyne draught, and then left him, hoping that he would have some sleep. In an hour after, pain returned as severe as ever; he then exclaimed, "Send for the doctor; I must be bled again."

I was accordingly sent for, but, not being at home, could not immediately attend. However, Dr. Cannon did, but just as he arrived Captain R. breathed his last. From the time he was taken ill to his decease it was only six hours. Dr. Cannon and I, after fully considering the case, could not attribute it to any other cause than "spasm of the heart;" and it is only justice to state, that neither of us thought of this until *after* the patient's decease; until then we merely thought he had just received a chill, and that, as reaction had come on, he would recover. "Truth is mighty, and will prevail." For my part, I detest and abhor dissembling. Dr. Cannon and myself were puzzled, and that is the truth; and this is what makes me submit the case to the Profession.

No doubt many on reading this, now that they know the result of the case, will be ready, like Columbus and the egg, to propose and suggest a hundred things, and find fault with our treatment. Be it so; I shall only be too happy if this may be the means of directing attention to similar obscure cases, so as to enable us eventually to understand the pathology of such, and form a more correct diagnosis. Let us, in defiance of that false delicacy now too prevalent, report our unsuccessful as well as our successful cases, and consider ourselves finite and defective, both in knowledge and practice. I am, &c.,

H. HASTINGS, M.D.

Cambray, Cheltenham.

SELF-SUPPORTING DISPENSARIES.

[To the Editor of the Medical Times.]

SIR,—The statement of your correspondent, Dr S. D. Lees, of Ashton-under-Line, respecting the operations of what he calls "Self-supporting Dispensaries," published in the *Medical Times* for March 1st, is a lamentable display of the sad consequences arising from the abuse of a principle which, if properly acted upon, would secure incalculable benefits to the poor and working classes, and at the same time promote the interests of the medical practitioners, and add to the dignity and respectability of the Profession.

From the proceedings at Ashton mentioned by your correspondent, no other result than what occurred could reasonably have been expected. A medical association is established which excites the jealousy and suspicion of the public, from an apprehension that the object of the Association was to "raise charges, not to equalise them;" "a committee was formed of innkeepers, shopkeepers, &c., who, in a spirit of opposition to the Profession, canvassed for subscribers to a proposed board of health, to supersede the resident practitioners. They succeeded in obtaining four or five thousand subscribers, took extensive premises, got a stock of drugs, &c., and engaged a stranger as a medical officer at a salary. There was no stipulation as to the ability of the subscriber to pay for ordinary attendance. All persons were admitted,—innkeepers, shopkeepers, butchers, overlookers of mills, getting 2*l.* or 3*l.* a week; spinners, getting 1*l.* 10*s.* a week; and others 1*l.* or more wages were admitted, on paying one penny per week for themselves, and a halfpenny per week for the rest of their families"!!

What else could have been expected than disaster and disgrace to the Profession from such a monstrous system? But who will say that such proceedings afford a fair view of the legitimate operations of the self-supporting principle as proposed by Mr. Smith. If the members of the Medical Association, instead of allowing themselves to be in hostile array against the public, had, in a spirit of conciliation, endeavoured to allay their ungrounded suspicions, and at the same time had taken an active part in promoting the establishment of a dispensary on the self-supporting principle, they would have prevented the flagrant abuses which occurred, and have rendered the plan of self-reliance an inestimable blessing to the neighbouring poor and working classes without injury to their own interests.

You have already favoured me by publishing in your valuable journal my statements of the establishment of the Derby Dispensary about twenty years ago, its progress since then, and its present prosperous condition. The securities against the admission of persons who are able to pay for medical assistance are highly satisfactory, and comparatively very few are admitted whose circumstances render them ineligible. They are as follow:—

1. A sub-committee, consisting of the honorary secretary, one of the surgeons, who are required to attend in rotation, and the dispenser, who acts as secretary, meet every Thursday evening, for the purpose of admitting new members and receiving subscriptions.

The presence of a surgeon on this Committee is an important guard against the admission of improper persons.

2. Each applicant for admission is required to attend personally, if not sick.

3. Inquiry is invariably made respecting the circumstances of each applicant, and none are admitted if there is reason to believe they are capable of paying for medical assistance.

Few persons whose circumstances render them ineligible for admission, would like to submit to such an ordeal.

This rule is not enforced with unnecessary stringency.

4. There is a form of letter requiring the attendance at the Committee of persons whose circumstances render them ineligible but have been inadvertently admitted. If they decline attending, or cannot give a satisfactory statement of their circumstances, they are excluded. I am, &c.,

Derby. JOHN JONES.

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REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

An abstract of a paper by Dr. Ogier Ward,

ON THE COMPRESSION OF THE FŒTAL HEAD DURING BIRTH,

and its immediate, consecutive, and remote effects, was read; of which the following were the main propositions:—That, under all circumstances, almost without exception, the head of the child undergoes a change of shape during birth, from which it recovers in the great majority of instances immediately, from the elasticity of the bones or from the effects of the first cries in producing determination of blood to the head. That, in some cases, the head retains its compressed shape for an indefinite period, during which time the child is apt to suffer from attacks of flatulence, convulsions, paralysis, and other cerebral affections. That there is reason to believe, from the observations of the author, that idiocy and insanity may also be produced by this deformity of the skull, and consequent compression of the brain when it is not removed during childhood.(a) That the most efficacious mode of relieving the brain from this pressure is to excite the cry of the child after birth, and thus, by causing distension of the cerebral vessels, to produce expansion of the cranial bones. Thirteen cases were adduced in support of these propositions, of which four were instances of convulsions, one of symptoms of insanity, one of paralysis that ceased when the head regained its form—and all suffered more than ordinarily from flatulence. In two of the four cases of convulsions, the fits came on several weeks after birth, and were followed immediately by the restoration of the head to its normal shape. Some sketches were exhibited, illustrative of the various kinds of deformity described in the paper.

Dr. Heale commented on the statement by Dr. Ward, that in cases of congestion of the brain there is often a large elimination of flatus. He had often observed this, and referred it to the connexion between respiration and the influence of the brain. The latter has a great control over respiration, and, when it is disordered, the act of breathing is diminished; and he thought that the carbonic acid, which should have been discharged by the lungs, is eliminated by the coats of the alimentary canal, by way of compensation.

Dr. Webster confirmed Dr. O. Ward's statement respecting Foville, who had formerly been physician to the asylum near Rouen; insanity is very prevalent in Normandy, and Foville attributed it, in some degree, to the high caps which are worn in that country, even by children. They are so tightly bandaged round the forehead, as sometimes to make very deep impressions. Had Dr. Ward any facts to show the prevalence of insanity among the Caribs, who practised compression of the skull from infancy?

Mr. Arnott applied to the obstetric practitioners present, and to Dr. Robert Lee in particular, to say whether their experience supported the views put forth by Dr. Ogier Ward; whether, in fact, the physical results he had described could be produced by a contracted pelvis, or by long detention of a fœtal head in its cavity?

Dr. Copland had long paid attention to these changes in the formation of the skull, and had described one or two varieties in articles on the cranium, and on epilepsy, published by him twenty years ago; since which time he had often noticed them at various public institutions. Of the diamond-shaped head—the oblique of Dr. Ward—he had remarked two varieties, one in which one side of the head is pressed forwards, the other, in which it is pressed upwards. These are not always owing to compression at birth. The last case he saw was in a child eighteen months of age, whose mother had previously borne several children not deformed, so that in this case the malformation could not be dependent on the contracted state of the pelvis. He said, as soon as he saw the child, it was subject to convulsions, and his opinion proved correct. When it is met with after puberty, it is connected with epilepsy. It is, however, of rare occurrence after that period of life. When one side of the head is pressed higher than the other, he had generally found there was palsy of the opposite side of the body, and this led him to believe that the bones of the head and the brain were not fully developed.

Mr. Cæsar Hawkins asked if these deformities, instead of being caused by compression exercised during birth, might not be produced by the pressure of the uterine walls during pregnancy. In two cases of the diamond-shaped head that came under his notice, there was not one bad symptom, not even convulsions, and the heads were gradually restored by nature to their proper form.

Dr. Robert Lee did not think that the pressure during labour would account for any of the symptoms mentioned by the author. He had often seen the skull much compressed, but did not call to mind any case in which the deformity was permanent, or insanity resulted. The skull may be subjected to great pressure, and effusion of blood take place beneath it, and yet all do well. The extravasation has certainly in some cases caused death, especially after the use of the forceps. He could not believe from his experience that any degree of deformity of skull depended on its compression during the birth.

In reply to a question from Mr. Hodgson, which we could not hear, but which evidently had reference to Mr. Cæsar Hawkins's proposition,

Dr. Lee exclaimed: How can the child be subjected to pressure from the uterine walls, when floating in the liquor amnii? These malformations of the skull are produced long before the commencement of labour, as are those of the brain, heart, genital organs, and of other parts. His experience did not show that compression during labour had anything to do with it.

Dr. Ogier Ward had not asserted but merely suggested, that insanity might in some cases be owing to compression of the skull during labour. He had directed his attention to the question for a few years only, and had only traced this effect in one instance as yet. Nevertheless, his views were strengthened by the statements of Dr. Copland and of Foville. The latter had found, in one-half the male, and in two-thirds of the female cases of insanity, deformities of the skull were caused by a peculiar covering for the head worn during childhood, and he himself believed that compression of the brain, if continued from birth, might produce the same result. He could not admit that the malformations occurred prior to the beginning of labour, as in that case they would rarely be recovered from, and the natural shape of the head restored, at least not immediately after birth. Nor would this theory explain why the oblique deformity was always on the right side. He accounted for it by its greater mobility.

(a) The author refers to the writings of Dr. Copland and M. Foville in support of this hypothesis.

STATEMENT OF A CASE OF CHYLO-SEROUS URINE.

By J. PEARCE, M.D., H. E. I. C. S. Bangalore;

WITH AN ANALYSIS OF THE URINE,

By J. E. MAYER, Esq., Madras Medical Service.

An English woman, born in India, 22 years of age, the mother of three healthy children, had been nursing the youngest for ten months when first seen by the author, in March, 1850. For the last five months the urine had been pale and milky, sometimes forming a jelly on cooling; quantity of urine rather large. The same state of urine had been observed after her other confinements, and had ceased after weaning. On this occasion she was advised to wean the child when she first applied for advice, viz., five months after her confinement. She declined, however, and was put on a course of tonics with generous diet. This plan was continued for about two months, having been interrupted for a few days by a feverish attack. At the end of this time, no improvement having taken place, the patient removed to Bangalore, and then came under the observation of the author. The quantity of the urine was at this time moderate; it was milky, formed a jelly when cool, and coagulated on the addition of nitric acid. The child was now weaned, the tonic plan of treatment continued, and in about three months the patient returned to her family considering herself well. The urine was less milky, did not coagulate on the addition of nitric acid, but still forms a jelly when allowed to stand for some time without being agitated. The analysis, by Mr. Mayer, showed that no caseine, pus, or phosphates were present, but that it contained albumen and an excess of fat, from which he infers, that it is to "the presence of animal fat and albumen" that the milky appearance of the urine is attributable.

Dr. Black thought the case described at a former meeting by Dr. Macintyre, resembled that just narrated by Dr. Pearce, and believed that Dr. Macintyre, if present, could furnish the Society with some important results.

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Dr. Bence Jones said, that Dr. Black mistook the case he himself (Dr. Jones) had narrated, in which there was a considerable quantity of albumen passing off by the kidneys, for that given by Dr. Macintyre. Dr. Macintyre's case was one of mollities ossium. The great value of the paper just read consisted in the chemical experiments, which showed the means of diagnosis between chyloserous urine, and the urine to which milk had been added in order to deceive. The albuminous principle in the chyloserous urine was soluble in ether and coagulable by heat, neither of which conditions obtained in the urine containing milk.

Dr. J. A. Wilson observed, that an important point in these cases was the means of cure. He had had a case in St. George's some years ago of anasarca coupled with chylous urine, in which every diuretic failed to do good. He therefore directed hot-air baths, with a view to bring the vicarious action of the skin into play, and the result was most satisfactory. The anasarca disappeared, the urine became clear and healthy, and, after a course of tonics, the patient was able to return to her situation. Two years afterwards there was still some œdema about the ankles, but no chylous matter in the urine. She looked strong and healthy. In this case the chylous urine did not depend on nursing, for the patient had not been pregnant. When any organ is disordered, it should be left at rest, and any other organ which acts vicariously to it, should be brought into greater activity.

In answer to a question from Dr. Seth Thompson, who thought Dr, Wilson's case one of albuminous urine, Dr. Wilson stated, that the urine was of a dirty white colour and gelatinous.

MEDICAL SOCIETY OF LONDON.

Dr. Murphy, President, in the Chair.

The early part of the evening was occupied in proposing votes of thanks to the officers of the Society for the past year; after which Dr. Murphy, the newly-elected President, delivered the following address:—

Gentlemen,—On taking the chair of this Society as your President, my first duty is to return you my warmest thanks for the honour you have conferred upon me,—an honour of which I cannot find terms that will sufficiently express my high estimation. I can only assure you, in return, that no exertion shall be spared on my part to promote the interests and to support the dignity of the Medical Society of London. My best attention will be given to the various questions of interest that are brought before us; and, with your kind assistance, I shall endeavour so to regulate the discussions that arise, as to elicit the many valuable facts and sound practical opinions that I know only require such a stimulus to bring them to light. While we are thus seeking by discussion to call forth important medical truths, I am sure you will agree with me in the necessity of controlling the temperature of a debate. The collision of opinions is often necessary to throw light upon a question; the scintillations that emanate from it are often valuable in reviving the dying embers of a discussion; but, at the same time, we must remember that the same cause may excite a conflagration, and deface the subject it was only intended to illumine. Thus it might happen that a discussion, if over heated, would become perfectly profitless. In the fire of a contest almost personal, the question itself is completely lost sight of. It is essential, therefore, to secure our Society from such a risk, and I shall use my best efforts to do so.

To render my meaning more intelligible, it may not be out of place to consider briefly the object of a Medical Society, the purposes it is designed to accomplish, and its value as an aid to medical science. The question has been more than once proposed, What is the use of a Medical Society? and the feeble support which they sometimes receive is like a silent confirmation of the implied objection. The reply to this query will at once present itself to the minds of those who, regularly attending this and similar societies, are conscious that their time has not been misspent. But if the objector has not and would not do so, I would only ask him to look into society at large, and he must be blind indeed if he cannot perceive, throughout its entire extent, a busy movement, wherein all objects, whether good or evil, are sought to be effected by united strength. If the desired improvement be of a political or a religious character—if the object concern the interests of philosophy or of literature—whether it regard the study of the abstract sciences or the cultivation of the arts—if it be the observation of Nature, whether in the construction of a world, or in the microscopic mechanism of its minutest inhabitant,—all these subjects afford so many illustrations of the advantages of association. There are societies for all. It is not, therefore, surprising that Medicine should yield to the general influence, and that we should find societies springing into existence for the purpose of promoting the improvement of the healing art. Medicine would be an exception to every other subject, if it alone derived no advantage from a principle which gives life to all besides. But, so far is Medicine from being an exception, that, looking to its essential character, I would assert that, beyond all other subjects, it requires this means of improvement. In the abstract sciences, it is in the power of an individual to follow out his demonstrations in the closet, and without any other aid than the strength of his own gigantic intellect to deduce, step by step, the most clear and startling truths. In the natural sciences it is still in his power patiently to observe, collect, and arrange the numerous facts which Nature places at his hand, and, by their aid, to establish the most comprehensive and surprising conclusions. But medicine does not admit such a mode of investigation. Its principles could not be laid down by a Hunter or a Fothergill with the same conclusiveness as the demonstrations of a Newton or the inductions of a Cuvier. It differs essentially from those sciences in this respect: we cannot grasp at its first principles, and our inquiry into causes is constantly embarrassed by the contradictory results that seem to emanate from the same cause. The vital principle is concealed from us, nor are we allowed to see the secret spring that sets in motion these unintelligible phenomena. We are, it is true, permitted to admire the tree of life at a distance; but if, attracted by its brightness, we seek to examine it more closely, our inquisitive gaze is at once dazzled, if not blinded, by the intensity of the light which protects it. Hence in medical inquiries the most powerful intellects and the most patient investigators have failed to produce results commensurate with the labour that had been bestowed upon them; and, whilst theories the most brilliant, and seemingly founded upon the most conclusive reasoning, have been successively overturned, because of the sandy foundation upon which they were built, what alone remains of value are the "*Disjecta membra poetæ*"—the unadorned and scattered facts which formed parts of the superstructure.

Hence those who have done the most service to medical science are they who, with little reference to theory, have collected the largest number of facts. If, therefore, the improvement of medicine be best promoted by the accumulation of facts—by plain, clear, and accurate statements of what has been seen and observed even by one individual—does not this furnish us with a strong *à fortiori* argument in favour of a similar mode of illustration, conducted, not by one, but by several individuals—in other words, by a society organised for the purpose?

It appears to me that the true purpose of a medical society is, the collection of medical facts whose accuracy is determined. The means of promoting such an object is within every one's reach who is content patiently to observe what lies before him. The benefit to be derived from the discussion upon such facts is, that similar facts may be elicited from other observers, so as to afford confirmation of that brought forward, and also in order that what is stated may be canvassed with critical attention, so as to separate everything that may appear doubtful or heterogeneous, and ultimately to leave in the possession of the Society a correct and valuable observation.

In stating such to be one of the chief advantages of a medical society, it is by no means intended to imply that it is the only benefit to be derived from it. By these remarks it is not designed to exclude the statement of opinion, or the proposal of ingenious, or it may be elaborate theories; on the contrary, I am quite aware that even in this respect a medical society is of infinite service as a kind of refiner of opinions. No one can be perfectly certain of avoiding error in the formation of a theory,—the most cautious speculators have sometimes fallen into the most palpable mistakes; what more effectual or more suitable corrector can there be than a medical society conducted upon proper principles? A society in which every one freely states the objections that occur to him, none indulge in a spirit of cavilling or ill-natured criticism. If the theory be sound it emerges from the discussion more perfectly established than before; if otherwise, the detection of its weak points may lead to a more accurate review of the principles on which it rests, and thus to its being advantageously modified and corrected. But let it be published with all its faults, and it is at once thrown aside on the general heap of medical speculations, which become the refuse of our professional literature.

If, then, it be admitted that a medical society is valuable and necessary to the promotion of medical science; the next question that proposes itself is as to the best means of carrying its objects into effect; and here we have to consider some of the objections that are occasionally levelled against these associations. "What is the use?" it has been said, "of going to hear the speculations of

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Mr A. or the laudations of Dr. B.? Wherein consists the advantage of listening to the unprofitable discussions of gentlemen who, having no data for their arguments, supply their place by the most contradictory assertions?" "What profit is there in witnessing two gentlemen, in single combat as it were, flinging unconnected facts and unsupported assertions at each other's opinions, which produce only confusion and perplexity?" If, indeed, a medical society were instituted for no better purpose than this, it would not only be useless but most tiresome and injurious. It would differ from all other societies that admit of debate in a total lack of interest, because of a total lack of argument. It is only when a medical society deviates into such a course that the abuse disguises and defeats the object for which it is designed. *Controversy* is scarcely fitted for a medical society, and becomes a fair objection to those societies in which it is too frequently permitted. It certainly cannot always be excluded; but it is never desirable. A great deal of time may be misapplied and wasted if a discussion merge into controversy, because medical questions are, of all others, the least adapted to this kind of examination. The data of medical propositions are so extremely uncertain, that an incontrovertible conclusion can seldom be deduced from them; hence, when controversy springs, there being no basis for conclusive reasoning, it becomes little else than a series of positive and contradictory assertions, too often ending in an over-heated dispute not less tiresome and fatiguing to the hearers than to the disputants. In the present day the medical periodicals are sufficiently numerous and liberal, and would give ample field for such combatants. There is another objection to medical societies; not so easily refuted, because it is sometimes impossible to avoid the difficulty. There are questions the very discussion of which disguises much more than elucidates truth. This objection applies especially to questions of fact, that form the foundation of new and controverted doctrines. A fact that is equally new and important may be stated very clearly, but it bears a very intimate relation to a theory or to a practice not yet established, the source, perhaps, of much controversy. The theory may be directed against some principle, moral or otherwise, that is generally admitted, and should not be disturbed; or perhaps the practice, if recognised, may be capable of some dangerous or immoral application; there is, consequently, no little prejudice mixed up in its discussion; and the fact alleged being, as it were, unfortunately found in bad company, does not receive fair play. The objections raised against it are not as to its truth or falsehood, the accuracy or the inaccuracy of the report that is given of it, but are entirely aimed against the conclusion that the fact seems to establish. Every effort is made to prove a *non sequitur;* and, in a debate carried on with a zeal—with an animosity almost polemical, the fact itself is totally lost sight of. The patient auditors of such a discussion leave it in no little perplexity. They are quite satisfied of the danger, or even of the falsehood, of the doctrine which the fact was advanced to support, but they cannot be at all so clear about the fact itself. Its truth evidently had not been disproved, simply because it was not properly tested. As a fact, strong in itself, and apparently giving a powerful support to the theory that had been so zealously attacked, it is sufficient to outweigh all the arguments raised against the theory, and there is, therefore, some danger that the discussion may give strength to the error, and consequently produce an effect precisely the opposite to that which was intended. I am no advocate for the doctrine or the practice of homœopathy, hydropathy, or mesmerism; but I must acknowledge, that the erroneous manner in which the merits of asserted facts have been sometimes discussed has not strengthened my objections to them.

There are cases, then, where discussion may confuse a subject if prejudice creep in, and there are reported facts that must be disproved by experiment, not by arguments.

Personalities, I need hardly say, are most unsuited to a medical society. Personalities, in the strict sense of the term, would not be tolerated in any society of gentlemen, and of course not in a medical society; nevertheless, discussions sometimes take a direction that fixes the attention so completely on individuals rather than the facts of the case, and criticises their conduct or their practice with such severity, that it becomes very like a personal attack. In such cases it is very difficult to draw a proper line of distinction between what is and what is not personal. The shaft is professedly aimed at an abuse or an error in practice, but it is levelled with such force, that it penetrates much deeper, and wounds professional character. The sarcasm, therefore, whether intentional or otherwise, becomes a personal affront, and completely changes the character of the discussion; it is no longer a contest for truth, but a struggle for victory; the question itself is laid aside, and the society becomes a kind of judicial court, that is to acquit or condemn some member of our Profession of the charge that is in this way made against him. Now, nothing can be more inconvenient, because such a debate accomplishes neither the one thing nor the other. The question proposed is left unsettled,—is not, perhaps, even touched; and the charge that is substituted cannot be fairly decided, because the facts are only partially stated. The society differs from every other court of judicature in this, that the parties accused have no previous knowledge of the nature of the charge, nor of the facts in support of it; they are, therefore, unprepared to reply to an attack that any one possessed of a little forensic skill may make appear justifiable, and founded in truth. The society may be, for the time at least, completely deceived, and arrive at a most unjust conclusion. A debate of this kind, then, is most mischievous, not only in excluding from consideration the proper subject for discussion, but in entertaining an ambiguous charge against some of its members, the validity of which it cannot determine. There is no class in the community whose existence depends more upon their reputation than medical men; there is none who may be more easily "filched of their good name." If it be the duty of a medical society to guard the interests of the Profession, it is its duty to watch, with a jealous eye, any attempt, however insidiously made, to injure, through it, the reputation of any of its members. It is true, there may be gross abuses sometimes committed in the practice of medicine; it is equally so, that they may require some public exposure in order to correct them; but it is not true, that a medical society is a fit place for such a purpose, because the benefit that may be derived from thus exposing an abuse is more than counterbalanced by the injury that is done, if it happen that the accusation is unjust.

A medical society should neither be an arena for controversial disputations, nor a court for canvassing the merits or demerits of individual practitioners. Its purpose is the investigation of medical truth, the accumulation of well-ascertained facts, the impartial examination of the explanation of those facts, and the consideration of such theories as are offered for this purpose. Even in this point of view, it is not desirable to give a disproportionate attention to medical theories, to the exclusion of the more valuable occupation of collecting facts. The disposition to theorise is too fascinating not to require a check rather than an encouragement. If a society give way to speculative discussions, it will find itself too often indulging in an amusing dream that soon vanishes, and leaves behind the unpleasant reality of time and labour lost. Its chief object appears to me to be the collection of medical experience, its diffusion, and thus to contribute to the promotion of medical knowledge. Such was the design of Fothergill, of Lettsom, of Jenner, of Woodville, and of Sims, when they first met in Bolt court, and founded the Medical Society of London; such, I trust, will still be its object, and, for such a purpose, I am from experience assured that the Fellows of this Society will warmly cooperate. To aid in such an object, it is not essential to possess great ability, nor does it call for deep research. I would say to the most timid and hesitating amongst us, be not discouraged, nor fear to bring before the Society the results of your experience, however limited; a single fact is of value when added to others of a similar kind. Industry alone is required; and if each will throw his mite into the treasury of experience, this Society will gladly receive the contribution, and will benefit much more by it than by speculative reasonings, however ingenious.

I have, gentlemen, thus wished to place before you the proper objects of this Society, in order that you may aid in carrying its intentions more perfectly into effect, which at present is particularly desirable, since the change that has lately taken place. You are aware that this Society has formed a union with another and a prosperous Society, on the principle *vis unita fortior.* This union had been the subject of anxiety to some, of much hope to others, and of some little ridicule to a third section of observers. The intended match, as it was called, was the subject of some merriment,—I will not say of envy,—among the gossips. So long as the union was in contemplation, having the honour to be placed in rather a responsible position, I confess that it gave me no little anxiety. I fondly hoped that the intended alliance would prove as happy as it was respectable; but it was impossible to avoid some misgivings that when the honeymoon was over, a slight difference of opinion might spring up between the parties—there is nothing uncommon in that. I feared that, as in all such cases, each party being bound to maintain their own opinion, the difference might widen into a breach, and that there might even be some talk of a separate maintenance. But I am happy to say that these fears were perfectly groundless; the parties have lived in the most perfect harmony, and, what is more to the purpose, the object of this union, the object for which all such unions are formed is now being accomplished. Its offspring already give every promise that they will sustain the reputation of their distinguished ancestors. It shall be my duty to cultivate these scions of our race,

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to call forth their latent powers, and to secure to the Society all the advantages of their great ability. It may, perhaps, also be necessary to keep in check and to control that luxuriance of genius which would grow wild, if permitted unrestricted freedom. The pruning-knife may sometimes be required, but only to give strength. In plainer language, as this Society now includes a large section of the Medical Profession, as it possesses a full share of professional talent and experience, I look confidently forward to a series of profitable discussions; and, while it shall be my object to elicit every new fact and every useful observation that will illustrate the question before us, it will also be my duty to prevent irregular debates, and, as far as possible, to free the Society from such errors in discussion as I have endeavoured to point out.

I feel assured that in this object I shall have your full co-operation; and I trust that, when I again restore to you the responsible office with which you have honoured me, you will have no reason to think that I failed in my duty to the Medical Society of London.

The conclusion of the address was received with great applause.

MR. GUTHRIE'S LECTURES.

The President announced that, in consequence of certain experiments which Mr. Guthrie was performing, his next lecture was to be postponed from the 19th to the 26th inst.

AMPUTATION OF ASTRAGALUS AND OS CALCIS.

Mr. T. H. Wakley exhibited the patient on whom he had performed this operation, and promised to prepare a paper for the 5th of April, "On Excision of the Joints," in which this case should be embodied with others.

THE MAMMILLATED CONDITION OF THE LEGS IN CERTAIN CASES OF DROPSY.

Mr. Nunn read a paper "On a Change which takes place in the Skin of the Legs of Persons affected with Certain Forms of Dropsy." In certain cases of dropsy, and especially in those dependent upon chronic heart-disease, towards the closing stage of that malady, when the legs have become infiltrated with fluid, and when the distension of the skin has arrived at a pitch which seems to threaten its vitality, it will be found that the cuticle gradually cracks, and that an exudation of serum takes place. The skin does not retain the waxy whiteness characteristic of anasarca, but changes to a reddish hue, or the cuticle separates from the true skin, and serum is poured forth more or less freely. The surface next becomes uneven, and, in the course of time, within a few weeks, the whole leg, from the ankle to the knee, is studded with elevations, varying from the size of a pin's head to that of a pea, which in some parts are grouped together, so as to cause larger protuberances. They are moist and shining; around their bases is a whitish pasty secretion, and serum oozes from their surface. A brownish green staining encircles the limb above the tuberculated part in some cases. This state is a result of anasarca, widely different from the ulceration following the formation of bullæ, or the large open sores produced by the separation of sloughs. It is a change, however, not of frequent occurrence, and has been mistaken for elephantiasis. It is attended with a great deal of pain and smarting. When the tuberculisation of the skin is fully established, a profuse discharge of serum takes place, saturating the bandages. The fluid secreted has a peculiar faint, sickly odour. It amounts to many ounces in the twenty-four hours. In proportion to the extent of the tuberculisation and the amount of the discharge is the relief experienced from the oppression of the vital functions, particularly of the respiration. The beneficial change is most striking; the fluttering pulse, the furred tongue, dry hot skin, parched lips, leaden countenance, and the laboured respiratory movements disappear: the size of the body diminishes, the brain again becomes active, the aspect brightens, and the most sanguine hopes of ultimate recovery spring into existence. When, from any cause, the discharge of the fluid is suppressed, even for a few hours only, it is followed by cerebral disturbance and congestion, and by uneasiness about the cardiac region. From this Mr. Nunn infers that the actual disease causing dropsy is not sufficient to induce death, but that the secondary effects of the effusion upon the vital functions is the more direful of the two agents, and therefore that, if the fluid can find an exit, the patient may exist in greater or less comparative security. But, unfortunately, this effort of nature has a tendency not to be permanent. In the course of time the mamillations shrink, the exudation becomes scanty, and at last entirely ceases, the leg being covered with a dryish scurf. In one instance, the patient survived this last change for more than a year. The preceding statements were illustrated by the detail of several cases which fell under Mr. Nunn's observation, or to which he was called by professional friends, and he then commented on the mechanism of the phenomena, first considering the nature of the discharge, and secondly that of the structural change which takes place in the skin itself. The fluid does not differ from ordinary dropsical fluid; it consists of water and albumen, with a certain proportion of the salts of the blood. No traces of urea could be found in it. Only one specimen, however, had been analysed, and Mr. Nunn, therefore, would be cautious in coming to a conclusion respecting its nature, as it is a point involving the important question of vicarious secretions. Mr. Simon's opinion is, that one organ can vicariously secrete for another only such materials as are common to both; if this be correct, then the presence of urea in the discharge cannot be expected. The relief afforded by the free discharge, Mr. Nunn, therefore, is inclined to attribute to the liberation of the parenchymatous organs from their load of serum, and their being thus enabled to perform their allotted functions. To illustrate the saturation of these organs, he mentioned, that a kidney belonging to a person deceased from cardiac dropsy, was of double its usual weight, namely, eight ounces. With respect to the second question, Mr. Nunn was of opinion that the mammillations and tubercles were hypertrophied papillæ of the skin; and he further thought it possible that some noxious matters might be eliminated from the system with the serum. The next question to be considered was, how to favour the development of these secretory mammillæ, and to keep them in a sufficiently active condition. The first, he thought, would be effected by remedies which would soften the epidermis, and stimulate the circulation of the skin, without causing mischief, and both these objects he believed would be obtained by warm fomentations. The ordinary dressing should be a soft linen rag, slightly smeared with ung. cetacei.

In the discussion that followed, Dr. King mentioned a similar case, occurring in an intemperate old man, seventy years of age, with hydro-thorax. The decoction of marsh-mallows applied to the leg afforded great relief, and the symptoms of hydro-thorax diminished while the discharge continued. It was, consequently, important to keep up the discharge, and he agreed with Mr. Nunn as to the utility of the fomentations, but did not approve of the ung. cetacei. He could not see any connexion between this disease and elephantiasis. Mr. Hunt did not approve of interfering externally with the limb in these cases; but would be more inclined to act upon the internal organs by hydragogue cathartics, diuretics, and sudorifics. He had not had much experience in this disease; but thought there was some analogy between it and cases of psoriasis and of ulcered legs of long standing with considerable discharge. The general opinion was, that if these be suddenly healed, it may endanger life by determining to the brain or other internal organ; but still it may be done with safety if, at the same time, an internal revulsive action be set up, and the diet be diminished. By Mr. Love a suggestion was thrown out, that it would be advisable to establish early in the disease such a drain from the system as is afforded by the mammillation of the leg, before the destructive inflammation occurs. He had been much struck with the relief afforded where nature has induced the state of leg described by Mr. Nunn. He recommended blistering to be tried early in these cases of anasarca. The most soothing application he had found to be the ceratum plumbi cum cretâ. Dr. Hare had seen the mammillated leg in dropsy from albuminuria. He approved of Mr. Nunn's plan of treatment; but not of blistering the leg. Acupuncture might be employed early. Mr. Hird remarked that, in cardiac disease, the mere determination of the inflammatory process to the lower extremity would afford relief to the oppression at the chest without there being any discharge. He thought Dr. Golding Bird's plan of the renal alteratives would be exceedingly valuable in these cases. The quantity of the solid matters carried off in the urine, when the acetate of potash or soda has been given, is really enormous. Mr. Harvey inquired whether, in Mr. Nunn's cases, the secretion of urine was suspended while the discharge was excessive? It was so in a similar case under his own care. Dr. A. P. Stewart described an interesting case of cardiac dropsy with mammillated leg; after which Mr. Nunn briefly replied.

SEAMEN'S HOSPITAL. — At the anniversary dinner between 800*l.* and 900*l.* were subscribed for this charity. It was said that during the past year nearly 4,000 seamen were relieved at the hospital.

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MEDICAL NEWS.

TRANSLATION OF SMITHFIELD-MARKET.—In comparing the two plans before the public for improving the meat-market, there are more elements for consideration than the simple merits of either plan. Government proposes to remove Smithfield, which would be an absolute good. The Corporation proposes a very comprehensive plan, which can scarcely be said to remove Smithfield-market, in the popular sense of carrying it out of town, but which would totally remove two other nuisances, and would remove the most serious objections to a live meat-market in the centre of the metropolis. A pamphlet has just issued from the press, for the purpose of making this plan clear to the public mind, and we must say that it has very greatly modified our opinion. (a) To that easily-procured document we may refer for a distinct and graphic account of the plan and of its contingent advantages; but its general nature may be very briefly indicated. On the western side of Smithfield lies a region of agglomerated nuisances—narrow crooked streets and labyrinthine alleys, private slaughter-houses, low skin-dressers, and tripe-makers, low lodging-houses, and worse. Behind the India-house is a long-doomed nuisance, called Leadenhall-market, for killed meat. Now both these comprehensive nuisances are to be absolutely removed. The bad region west of Smithfield is to be cleared out, and on its site is to be constructed a vast market, covering an area larger than Lincoln's-inn-fields, with a frontage westwards, and new streets surrounding it. In the front part would be the market for killed meat, a broad parallelogram building; behind that the cattle-market, of an amphitheatric form, surrounded by a wall, and outside that by an open street. The extreme back of the semicircular wall would abut upon the present Smithfield. To the dexter side of the market-front, northwards, would lie a range of slaughter-houses. By this plan the market would be entirely shut away from the thoroughfare. The newest improvements of drainage, ventilation, &c., would practically annul the substantial nuisances arising from the assemblage of so many beasts and the slaughtering; the blood and other effusions being carried off by the great sewer to the Essex marshes. We presume that humanity would be conciliated by finally adopting the new mode of slaughtering beasts—puncturing the spinal cord. The passage of cattle through the streets of London is chiefly injurious in the day; by an absurd enactment, it can now take place only during that bad time; according to the plan of the Corporation, it would be limited to the night. Perhaps it would be possible to disarm it altogether of any unpleasant or formidable consequences, by placing the beasts in moveable pens, of which they would themselves be the motive power. Let us survey the contingent advantages of the plan. Smithfield cleared out, and made the site of model lodging houses, baths, fountains, &c., (for that is a constituent part of the scheme;) the region to the west, a shocking nest of nuisances, diseases, and abominations, cleared out, and a handsome market substituted; Leadenhall-market abolished; the cattle traffic of the day abolished; a central market retained, and the transit of cattle *across* London, from the Southern counties and the docks, minimized. Practically, this seems to us to secure *more* than was promised by the mere exile of Smithfield out of the City—a great deal more. There is another element in the calculation. Government promises are now reckoned in the same category with lovers' vows, pie-crusts, and egg-shells—Government has a "bill," but when the public shall have the consequent *fact*, who shall say? The Corporation also has a bill, and it generally honours its bills: it is ready to make the scheme a great fact—*now*.—*Spectator*, March 15.

SALE OF ARSENIC REGULATION BILL.—On moving the second reading of the Sale of Arsenic Regulation Bill, the Earl of Carlisle explained its simple enactments. It forbids any sale of arsenic without the contemporaneous entry, in a book to be kept for the purpose, of a full statement of the quantity sold, the name and residence of the purchaser, and the purpose to which it is to be put. Arsenic, from the comparative absence of taste and colour, affords such peculiar facilities for poisoning, that, where the crime is rife, "arsenic" and "poison" are looked on as synonymous. Other poisons are as fatal, but they are so little known that a schedule of them would be an ill-advised advertisement of them. It has been suggested that only a minimum of arsenic shall be legally saleable; but "if persons are compelled to buy more than they want, they will leave it lying about as soon as they have used what they require"—to the obvious facility of intentional or accidental evil. "This species of crime is not familiar to the English people, nor was it to the Christian world of ancient times; and the only way of grappling with it now will be by instructing our population in the doctrines of Christianity." The Earl of Mountcashel regretted that other poisonous articles—prussic acid, for instance—are not included in the Bill; and pointed with approval to the French law, which forbids that any one should obtain poison except on an order from a medical man. The Bill was read a second time.

THE LATE SAMUEL COOPER, ESQ.—The bust of this distinguished surgeon, subscribed for by his friends and former pupils, having been admirably executed by the artist, Mr. Butler, a meeting of the subscribers took place on Saturday last, to consider where it should be placed. The meeting, which was well attended, and presided over by Colonel Wood, of Littleton, decided on presenting the bust to the College of Surgeons. A counter proposition, to present it to University College, was also entertained, but not carried. The meeting, on the whole, was a satisfactory one, owing in a great degree to the able and conciliating management of the Chairman, and it was finally resolved that the surplus fund, after supplying each subscriber of one guinea with a reduced copy of the bust in Parian, should be devoted to the purchase of books, to be presented to the Medical Society of University College. Thanks were voted to the Chairman, and to the gentlemen who had managed the subscription.

NAVAL APPOINTMENTS.—Surgeon-Superintendent Wm. H. B. Jones, M.D., (1837), to the Aurora, hired convict-ship. Surgeon Richard Carpenter, (1842), to the Penelope steam-frigate at Portsmouth.

MILITARY APPOINTMENTS.—2nd Foot: John Edward Moffat, gent., to be assistant-surgeon, vice Decker, promoted in the 5th Foot; 5th Foot, assistant-surgeon Edward Scott Decker, from the 2nd Foot, to be surgeon, vice Mackenzie, appointed to the staff; Cape Mounted-riflemen, Henry Bolton Hassard, gent., to be assistant-surgeon, vice Stuart, killed in action. Hospital Staff: staff-surgeon of the 2nd class, William Charles Humfrey, to be staff-surgeon of the 1st class, vice Ford deceased; surgeon William Ord Mackenzie, M.D., from the 5th Foot, to be staff-surgeon of the 2nd class, vice Humfrey, promoted; Robert Bradshaw, gent., to be assistant-surgeon to the Forces; John Headley, gent., to be assistant-surgeon to the Forces.

COMMISSION SIGNED BY THE LORD-LIEUTENANT OF THE COUNTY PALATINE OF CHESTER.—The Earl of Chester's regiment of yeomanry cavalry, Wm. M'Ewen, M.D., M.R.C.S., to be assistant-surgeon, vice Deane deceased.

APPOINTMENTS.—Mr. Lonsdale has been appointed surgeon to the Orthopædic Hospital, and Mr. Brodhurst is a candidate for the assistant-surgeoncy vacant in consequence. Mr. Foster has also offered himself as a candidate for the vacant assistant surgeoncy. The vacancy will be declared on the 28th inst., when applications from candidates will be received, and their qualifications examined. Dr. Hamilton has been elected one of the medical (?) officers of the Homœopathic Hospital. We presume that Dr. Hamilton's professional titles are allopathic, as there fortunately does not exist any homœopathic university. If so, what becomes of his oath,—to support the honour and dignity of the university which has given him his degree?

NEWTON ABBOT BOARD OF GUARDIANS.—Mr. Puddicomb, of Moreton, has been elected the medical officer for the North Bovey and Manaton district for one year. The appointment had been postponed for one week, to give him the opportunity to prove that he was legally qualified. The election was unanimous.

OBITUARY.—On the 8th instant, at Green Royde, near Halifax, James Inglis, M.D., aged 37.—On the 17th, at Weston-super-Mare, J. A. Jacob, M.D.—On the 18th inst., Dr. James Allan, Deputy-Medical Inspector of Hospitals and Fleets, surgeon to Haslar Hospital, aged 58, at Portsmouth.—At Glasgow, on the 16th ult., Robert Stewart, M.D.

ROYAL INFIRMARY FOR CONSUMPTION.—At the annual dinner of this charity, the subscriptions amounted to upwards of 400*l*. The Institution has existed thirty-six years, and, during that time, has relieved 36,978 out and 486 in patients, the annual number of cases now treated being more than 1000.

A BALL was recently given in behalf of the Blenheim-street Free Dispensary. The Institution is in arrears it seems. Last year its expenditure exceeded the income by nearly 200*l*. 6078 persons were admitted as patients during that year.

UNIVERSITY COLLEGE.—At the annual meeting of the proprietors lately, the report stated that, for the years 1849-50, there

(a) "The Moral and Sanitary Aspects of the New Central Cattle-market, as proposed by the Corporation of the City of London. With Plans. By J. Stevenson Bushnan, M.D., Member of the Royal College of Surgeons, and Fellow of the Royal College of Physicians of Edinburgh; Senior Physician to the Metropolitan Free Hospital, &c., &c." Published by Orr and Co.

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had been, in the faculty of medicine, 249 pupils—4268*l.* fees. The increase during the past year was 35 pupils in the faculty of medicine. The library now contained 31,789 volumes. The finances still were not satisfactory.

THE FELLOWSHIP.—The Council of the Royal College of Surgeons have just announced that the next professional examination for this distinction will take place on Monday and Wednesday, the 7th and 9th of April next. (See advertisement on the cover.)

EXAMINATION AT THE COLLEGE OF SURGEONS.—But one candidate presented himself at the last Classical and Mathematical Examination at the College of Surgeons,—Mr. Lawrence, jun., the worthy son of a distinguished father.

MEDICAL CHARITIES.—Sir Wm. Somerville, M.P., has obtained leave to introduce a Bill for the better distribution, support, and management of medical charities in Ireland. In the proposed Bill it is suggested that there should be but one Board, and that should be the Poor-law Board.

PATHOLOGICAL SOCIETY.—Dr. C. J. Williams has presented this Society with a valuable microscope, just made by Messrs. Powell and Lealand, thus testifying to the usefulness of the Society, and to the deep interest which he takes in its welfare. This generous gift of the first president of the Society is a brilliant example, which we shall hope to see followed by some of his successors.

UNIVERSITY COLLEGE HOSPITAL.—The late Mrs. Mary Petch has bequeathed a legacy of 500*l.* Three-and-a-Half per Cents. to this charity.

CIVIC LIBERALITY.—The Common Council of the City of London have just granted in the most liberal manner the sum of 210*l.* to the Asylum for Idiots, and 105*l.* to the German Hospital; and have also referred a Petition from the President and Governors of St. Mary's Hospital for a grant to their funds to the consideration of the Coal, Corn, and Finance Committee.

THE ASYLUM FOR IDIOTS, COLCHESTER.—We have received the following circular, to which, with our warmest wishes for success, we hasten to give insertion:—

"This asylum was instituted in the year 1847, for the care and education of the idiot and imbecile. Much has been done to improve the condition of the lunatic; but nothing had been distinctly done for the idiot. He was abandoned to neglect or scorn, and commonly sank down into a state of such unutterable wretchedness, as to make death itself preferable to life.

"Two great objections met us at the very threshold of the undertaking. The first was, that we could do nothing for the idiot. This has been fully answered by the patient effort of the last two years. With every disadvantage that necessarily waits on an infant proceeding, we have shown that much may be done. Always a great deal may be done for the comfort and physical enjoyment of the patient; and, when taken early in life, much may be done, by the steady exhibition of discreet means, to recover the most abject cases to rational and useful life. The other popular objection was, that there were comparatively no idiots. It was not then known, that a multitude of these cases, from shame or sorrow, were hidden, not only from the eye of the world, but from the observation of social intercourse. It is now ascertained by correct statistics, that the number of idiots exceeds that of lunatics. In fact, the applications made to the Board since the establishment of the Asylum, have been nearly overwhelming; and, at this time, we have 170 eligible cases earnestly craving admission; and the Board cannot prudently advance on their numbers, except as they are sustained by increased contributions.

"During the short time the Asylum has existed, the Board have taken a house of considerable capacity—they have filled it, and enlarged it, and again it is full. Subsequently, by the liberal assistance of a benevolent individual, another house of larger capacities has been secured; it is now occupied, and will in a couple of years also be filled.

"This is not all. The Board would say little of the difficulty, labour, and expense of working a charity with such distant localities,—the greater evil is, that everything they do is of a temporary and incomplete character. Besides, no private dwelling affords by any means such accommodations as are needful for so unique a family. We need a complete separation of the sexes—equally so of adult and youthful life—and still equally so of the cases which are only susceptible of protection and comfort, and of those which are capable of education and improvement. This last class again demands variety of treatment—association, classification, and separation are all requisite. Some cases need retirement, some improve greatly by society, provided much care is used in the assortment.

"These considerations, with many of a kindred character, which will readily arise to the benevolent mind, have led the Board to the conclusion, that to do their duty by the trust committed to them, and to work out successfully the great experiment in favour of the most afflicted and debased portion of the human family, they must erect a dwelling, with all the appliances and facilities indispensable for the undertaking.

"*Proposal.*—They propose, therefore, at once to open a building fund for this object. They purpose to move to this object with the strictest regard to economy. They purpose not to take any practical measures till one-half of the needful sum is raised or promised. They purpose to raise a model institution worthy of the subject, as one alike of science and of humanity, and worthy of the country in which we live—great in everything, but greatest in charity. They purpose to provide for not less than 300 beds, with facilities for enlargement.

"*Means.*—The object may be promoted by ordinary subscriptions, which will give the same privileges as contributions to the current fund. Persons promising to answer for 100 guineas may pay it by instalments, or on the day of laying the first stone. Persons paying 250 guineas may secure the presentation to one bed in perpetuity.

"Persons aspiring to do more than this—where, alas! so much is to be done—may arrange for a ward, and give it such name as they may desire.

"The appeal is made to the worthy and the wealthy of the land; and in behalf of those who have been most neglected, who have suffered most, and who have suffered being innocent, and unable to plead for themselves.

"Now that a voice, after such strange and criminal delay, is raised in favour of the sufferers, shall it be heard in vain? Will not those who have little do something, and those who have much give—as Providence has given them—abundantly? Without invidious comparison, this Institution may be said, so far as charity is concerned, to be the want of the day: and it would be the scandal of the day, if, being awakened to its importance, we should refuse it support. Happily, such an issue is not to be contemplated in England, where Divine charity finds her home, and where men would rather give amiss than 'withhold that which is meet.' The dumb pleadings of the most unhappy of our race and of our people, will be met with a generous response; the honour of our country in her most sacred characteristic will be preserved unblemished; we shall hasten to imitate the example of him—our blessed Redeemer—who went about 'healing all manner of diseases,' but chiefly blessing the lowest and the worst.

"JAMES HOLLOWAY, D.D.,
"ANDREW REED, D.D.,
Gratuitous Secretaries.

"JOHN CONOLLY, M.D.,
"WILLIAM LITTLE, M.D.,
"THOMAS CALLAWAY, F.R.C.S.,
Gratuitous Medical Officers."

HOSPITAL FOR SICK CHILDREN.—A meeting was held on the 18th instant, at the Hanover-square Rooms, under the presidency of Lord Ashley, to appeal to the public for their support, to erect a suitable hospital for the reception of sick children, to adopt rules for the future government and management of the institution, and to authorise the opening of a temporary hospital. A printed report was circulated among those present, in which it was stated, that there was only one dispensary for sick children in London, whereas on the Continent a children's hospital existed in every principal town. The object of the committee was to have such an institution in London,—a house capable of containing 100 beds, which would enable them to provide annually for 800 children. The cost of working it would be only two-thirds of the sum required for a similar institution for adults. The principal speakers were—Lord Ashley, the Earl of Carlisle, Sir Robert Inglis, the Bishop of London, Dr. Copland, Dr. C. West, Dr. Burrows, Sir James Clark, &c.; and by them certain resolutions, in accordance with the objects of the meeting, were accordingly passed. Dr. Copland's observations were, however, to a different purport. He reminded the meeting, that thirty years ago a dispensary for sick children had been established, with which he (Dr. Copland) had been all along connected. Although it had done great good, it was not supported as it ought to have been, and they had never been able to admit patients into the house. He did not object to their starting a new hospital, but let them share their charity. If they were inclined to give 21*l.* for the new institution, let them at the same time give 10*l.* 10*s.* to the old and actively useful one. Captain Acherley, "the genius of the lamp," was present at the meeting, and determined to show forth. After Sir James Clark had spoken, the Captain, in a very loud tone of voice, addressed the chair, insisting that all the officers of

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the new institution should be women. They alone were capable of attending to sick children; and he urgently called on the meeting not to allow any of the infamous medical men to be appointed to it, for they knew nothing of children's diseases, and killed more than half of those placed under their care. After many attempts to quiet the unhappy man the police were called in, and he was removed. The meeting was but thinly attended, and chiefly by ladies.

It is in contemplation to erect county lunatic asylums for Westmoreland and Cumberland.

Marylebone Board of Guardians.—Medical Relief.—A proposal has been brought before this Board to do away with the present system of medical relief to the parochial poor, and to substitute for it the appointment of district surgeons, selected from among the medical rate-payers, who are to receive 100*l.* a-year each. By the present system, besides the magnificent infirmary at the workhouses, under the charge of honorary physicians and surgeons, and of Dr. Allen as resident medical officers, the out-door poor are visited by two assistant-surgeons, whose pay is 2*l.* 2s. weekly, and their rations, but no lodgings: the latter are forbidden private practice. It was contended that the districts were too large for the junior surgeons, that they could not do them justice. The surgeons to be appointed are to be allowed to practise their profession at present, and to furnish medicines to the pauper sick. A similar proposal was made on a former occasion, and rejected; on the present, it was carried; but Mr. Jacob Bell, M.P., announced his intention to move the non-confirmation of the minutes on the next occasion. We are glad to perceive that the Marylebone Vestry, in electing the Board of Guardians for the next year, have rejected Mr. Michie, who has, on more than one occasion, grossly insulted the Medical Profession.

The Gold used by Dentists.—The *Times* a few days since contained the following paragraph:—"The public and the medical profession generally are not aware of a very fruitful source of disease which arises from the introduction into the mouths of many thousand persons, of metallic plates and other apparatus for the securing artificial teeth. These plates, &c., are nominally constructed of gold, but, in point of fact, in innumerable instances there is little or no gold used in the construction of them; silver gilt, or some still baser metal is employed, which, being acted upon by the acids of the stomach, produces a poison, which insidiously undermines the health, causing cancer and other diseases. The false delicacy of the sufferer, and his ignorance of what causes his complaint, prevent him from receiving such advice as would meet his case. This imposition on the public admits of a most simple remedy; it is merely compelling all persons who are employed in the trade or profession of making such plates, springs, &c., to have them stamped at the Goldsmiths' Hall, and a standard enforced which would guarantee the security of those by whom they were required." This passage contains a great deal of truth, and several errors also. The practices thus strenuously condemned, are not those of respectable dentists,—of men who have been duly educated for their profession,—but of interlopers who are utterly reckless of the injury they may cause, and regardful only of the means by which they can obtain money from a deluded public. Neither is it true that the sad results of this disgraceful imposition were unknown to the medical profession and to the dentists. They have been exposed on more than one occasion. Again, it is the acids contained in the vitiated saliva, and not the acid secretions of the stomach, which are most operative in disorganising the baser metals and gilt silver when used for artificial teeth, although the latter may occasionally exert some influence. It is more than doubtful whether cancer can be thus induced; but chronic inflammatory affections of the throat, a diseased state of the gums, alveolar periostitis, chronic bronchitis, dyspepsia, ptyalism, vertigo, impaired vision, some degree of deafness, great debility, and general ill-health, may all be set up in the system, and protracted and severe indisposition be the result of the maintenance of a mineral poison in the mouth. The reason why silver plates are so injurious, is because that metal always has a larger or smaller quantity of copper in combination with it.

A case was recently tried at the Norfolk circuit before Lord Chief Justice Jervis, where a man was charged with wounding another with a knife. For the defence, Mr. Bailey, a surgeon, swore that the wound was jagged, and might have been caused by a broken file, as alleged; it could not have been produced by a knife. Unsatisfied with this evidence, the Judge sent for Mr. Palgrave, the mayor, who is a chemist and druggist, and who dressed the wound in the first instance, for him to give his opinion. The druggist, accordingly, swore at first, that the wound was caused with a knife, but afterwards admitted that it might have been made with a broken file. The jury, like sensible men, acquitted the prisoner. Here, then, we have a Lord Chief Justice and a country mayor breaking the law; the former, by calling for an unqualified person to give evidence in a surgical case, and the latter in doing so, and this while a medical man was to "the fore." Such conduct will not add to Chief Justice Jervis' reputation. He would not tolerate such proceedings in his own profession, and why should he carry them out in ours? He might just as well have summoned an old woman or a mere herbalist as the druggist-mayor.

Cæsarian Section.—The newspapers record a singular and sad case of Cæsarian section, *if it be true*. It is stated, that in the parish of Llanfihangel Llanfillan, Montgomeryshire, a young servant girl, near her confinement, opened the abdomen with a pair of scissors, and then delivered herself of a full-grown infant. She was detected in the act of stitching up the wound thus so unnaturally inflicted on her person. Medical aid was immediately procured, but she died in a few days, from mortification, it is said. The whole tale is incredible, for it is hardly possible that any human being could perform so dreadful an operation on her own body, and afterwards go coolly to work to sew up the wound. Besides, mortification is not by any means the ordinary termination of such an injury. If any of our readers in that neighbourhood should know the particulars of this alleged operation, we should be glad to have them. If the account be true, it will be another case, under peculiar circumstances, it is true, to add to the fatal list of this operation, so energetically condemned by Dr. R. Lee and other obstetric magnates.

New Method of Operating for the Cure of Fistula in Ano.—We witnessed last week, in the theatre of University College Hospital, the performance, by Mr. Marshall, of two operations, one for the cure of fistula, the other for the removal of a large hæmorrhoid. The method adopted for laying open the fistula and removing the pile was entirely new, and proved completely successful. As Mr. Marshall explained, the same method of operating was equally applicable to the treatment of a variety of troublesome surgical maladies, *e. g.*, polypus uteri, indolent fistulæ, wherever situated, and nævus. We refrain from giving any particulars, as Mr. Marshall will doubtless shortly lay, *in extenso*, his method of operating by the aid of the galvanic current before the Profession.

Bristol.—A Coroner's jury at Bristol have found the following verdict over the body of a young lady who died suddenly, and on whom a surgeon held a *post-mortem* examination—"Idiopathic asphyxia, hastened by tight lacing."

Dr. Moffatt, a graduate of Edinburgh, has petitioned the French Assembly for permission to practise among his countrymen in Paris. The petition, it is said, has excited great interest.

The pay of the civil medical officers sent to the West Indies by the Government is 3*l.* 3s. per diem, and all reasonable expenses paid. That of the naval assistant-surgeons, who resigned their commissions in preference to going, one of them from ill health, was 8s. 6d. per diem, after eight or ten years' service in all parts of the world. "Look on this picture and on that!" We do not mean to say the former was too much; but, if that was a fair rate of pay, the latter was an insult. Nor is it an answer, to say that that is the rate of payment of assistant-surgeons in the navy generally, and such as those gentlemen had previously received. Where extra services are required, extra remuneration, with a prospect of promotion, should be given. Had they been offered one or two guineas a-day, and the rank of surgeon, which their date of service entitled them to, the country would not have grudged it.

Owens' College.—The noble collegiate institution at Manchester, endowed by the late Mr. John Owens, has been inaugurated. Professor Scott, the Principal, was prevented by sudden illness from delivering the regular inaugural discourse which he had prepared; so there were substituted, introductory lectures on the language and literature of Greece, by Professor Greenwood, and on mathematics and physics, by Professor Sandeman. The Dean of Manchester, the Mayor of Manchester, and many other leading citizens, were present, and about twenty students. The fund left by Mr. Owens was intentionally restricted to the endowment of the educational institution, and was so left that no part of it could be "wasted on bricks and mortar." The institution begins work in the spacious house once the residence of Mr. Cobden, in Quay-street.

Foundlings.—The *Fenice*, a Milan journal, gives some interesting statistics respecting foundlings in the Lombardo-Venetian provinces. "On consulting the statistical tables existing since 1660, it is proved that the number of foundlings has been increas-

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ing year by year in an almost geometrical ratio. In 1660, 410 infants were abandoned; in 1850, there were no less than 8369, or more than eight times more, although the population is only double what it was. From 1660 to 1750, the number of foundlings had been doubled; and the same occurred in 1799 with respect to 1750. At present the Foundling Hospitals have 8924 inmates. At Brescia, the ratio of foundlings to the inhabitants is as 1 to 108.; at Como and Sondrio, 1 to 364; at Pavia, 1 to 254; at Mantua, 1 to 338; at Milan, 1 to 76. It has been at the same time remarked, that the number of illegitimate births has diminished, and that foundlings born out of wedlock are only 30 per cent. of the total number of foundlings; so that the enormous proportion of 70 per cent. are abandoned by their lawful parents."

OXFORD MEDICAL DISPENSARY.—At the annual general meeting of this charity, the treasurer's accounts having been submitted and approved, the following resolution was unanimously agreed upon:—"That this meeting tender to their retiring surgeon, Mr. Symonds, the assurance of their regret that the dispensary is to be so soon deprived of his valuable services, and of their lively conviction of the benefits which this institution has derived from his professional skill, his diligent attention to the duties of the office, and the uniform kindness which he has manifested towards the patients. The meeting would express their cordial thanks to Mr. Symonds, with their earnest wishes for his welfare, and request him to allow his name to be retained on the books of the institution, as Honorary Consulting Surgeon."

DEATHS *in the Metropolis for the week ending Saturday, March* 15, 1851.

1. Small-pox	16	Paralysis	20	Disease of Spleen	...
Measles	29	Delirium Tremens	...	8. Nephritis	...
Scarlatina	16	Chorea	...	Nephria or Bright's Disease	1
Hooping Cough	92	Epilepsy	6	Ischuria	...
Croup	7	Tetanus	...	Diabetes	1
Thrush	3	Insanity	4	Stone	1
Diarrhœa	12	Convulsions	61	Cystitis	1
Dysentery	5	Disease of Brain, &c.	11	Stricture of Urethra	1
Cholera	1	5. Pericarditis	5	Disease of Kidneys, &c.	9
Influenza	38	Aneurism	1	9. Paramœnia	...
Purpura and Scurvy	2	Disease of Heart	47	Ovarian Dropsy	3
Ague	...	6. Laryngitis	5	Childbirth (see Metria)	5
Remittent Fever	3	Bronchitis	171	Disease of Uterus, &c.	2
Infantile Fever	4	Pleurisy	3	10. Arthritis	1
Typhus	43	Pneumonia	123	Rheumatism	3
Metria or Puerperal Fever	3	Asthma	38	Disease of Joints, &c.	1
Rheumatic Fever	2	Disease of Lungs, &c.	14	11. Carbuncle	...
Erysipelas	7	7. Teething	17	Phlegmon	1
Syphilis	...	Quinsey	2	Disease of Skin, &c.	2
Noma or Canker	...	Gastritis	3	17. Intemperance	6
Hydrophobia	...	Enteritis	3	Privation of Food	1
2. Hæmorrhage	1	Peritonitis	6	Want of Breast-milk	7
Dropsy	15	Ascites	3	Neglect	...
Abscess	2	Ulceration (of Intestines, &c.)	2	Cold	1
Ulcer	2	Hernia	...	Poison	1
Fistula	1	Ileus	3	Burns and Scalds	3
Mortification	5	Intussusception	...	Hanging, &c.	5
Cancer	29	Stricture of Intestinal Canal	1	Drowning	4
Gout	...	Disease of Stomach, &c.	7	Fractures	7
3. Scrofula	9	Disease of Pancreas	...	Wounds	2
Tabes Mesenterica	11	Hepatitis	1	Other Violence	1
Phthisis (or Consumption)	166	Jaundice	2	All Violence	23
Hydrocephalus	47	Disease of Liver	12		
4. Cephalitis	11				
Apoplexy	20				

BIRTHS AND DEATHS.

	Births.	Deaths.	Births over Deaths.
Males	770 } 1533	684 } 1401	86 } 132
Females	763 }	717 }	46 }

The Deaths in the several Districts are as follow:—

Districts.	Population in 1841.	March 15, 1851.	Sum of Ten Weeks.
London	1948369	1401	9931
West	301189	220	1587
North	376568	293	1897
Central	374199	251	1854
East	393067	281	2123
South	503346	356	2529

Causes of Death.	March 15. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	593	442	365	1401	9931
Specified Causes	590	442	365	1398	9864
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases	200	43	40	283	1743
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat	7	29	19	55	346
3. Tubercular Diseases	77	143	13	238	1912
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses	62	21	39	123	1263
5. Diseases of the Heart and Blood-vessels	3	32	18	53	340
6. Diseases of the Lungs, and of the other Organs of Respiration	122	104	126	352	1810
7. Diseases of the Stomach, Liver, and other Organs of Digestion	28	23	16	67	597
8. Diseases of the Kidneys, &c.	1	6	7	14	107
9. Childbirth, Diseases of the Uterus	1	9	...	10	105
10. Rheumatism, Diseases of the Bones, Joints, &c.	1	1	3	5	70
11. Diseases of the Skin, Cellular Tissue, &c.	2	1	...	3	9
12. Malformations	7	...	...	7	22
13. Premature Birth and Debility	35	4	...	39	215
14. Atrophy	22	1	1	24	143
15. Age	...	...	74	74	635
16. Sudden	6	3	4	13	94
17. Violence, Privation, Cold, and Intemperance	16	17	5	38	266
Causes not Specified	3	...	...	3	47

TO CORRESPONDENTS.

ADVERTISING MEDICAL MEN.

[To the Editor of the Medical Times.]

SIR,—I venture to call your attention to the "Morning Advertiser," of March 14, which contains a most unrelenting puff of Dr. Theophilus Thompson and his "highly interesting lectures" at the Brompton Consumption Hospital. "The deepest interest" is said to have been created upon the occasion; and the lecture to have "concluded by a full burst of applause from the numerous auditors." Now, Sir, I am a man struggling to earn my bread legitimately; and I wish to know, if the physicians of large hospitals countenance such advertisements, can they be said to do the same?

I am, &c., PHILO.

[Dr. Theophilus Thompson may well exclaim, "defend me from my friends." Such advertisements are highly injurious both to himself and to his colleagues; and he would be justified in bringing an action against the proprietor of the paper for defamation of character. He might, perhaps, recover damages, while he vindicated the proprieties of legitimate practice.]

A Subscriber ab Initio.—A small volume has been published—any bookseller can procure it—giving a list of Government patronage, and including medical appointments.

A Subscriber—The appointment of surgeon on board a Peninsula and Oriental steamer is in the gift of the Board of Directors—to one of whom our Correspondent must apply. The necessary qualification and the amount of remuneration may be learned on application to the Secretary at the Office.

WE know nothing of Australia; but we have heard that many medical men who have gone out to practise have taken to the bush.

Iveland must turn to his books on physiology or read "Todd's Cyclopædia," article *Ovary*.

GENTLEMEN who expect their communications to be noticed must address them to the Editor.

We are obliged to omit this week our usual Clinical Lecture (Dr. Budd's), and many valuable communications. We next week commence a short series of papers by Mr. Wilde, of Dublin, entitled "Practical Observations on Disease of the Ear, with Records of Cases treated at St. Mark's Hospital."

J. C. U., Ulverstone.—The proceeding is irregular, but we have no doubt that if a representation of the circumstances disabling our correspondent from procuring an indenture were made to the Court of Assistants of the Apothecaries' Society, it would receive favourable consideration. The certificate would probably be received, if an apprenticeship had been served *bonâ fide*. Our correspondent should apply to the Secretary of the Court of Examiners.

Dr. W. Lobb.—We regret that the copy of Petition for the abolition of the window-tax, agreed to by the Poor-law Medical Officers of the City of London, is too long for insertion in our columns, but we strongly recommend the medical officers of other unions to follow so good an example. It is by such acts as these that the real influence of the Profession on domestic legislation can be made most effectual for the public benefit.

COMMUNICATIONS have been received from—

A SUBSCRIBER AB INITIO; A SUBSCRIBER; Mr. W. M. CLARKE, of the Bristol General Hospital; SECRETARIES OF THE ASYLUM FOR IDIOTS; J. B.; Dr. JOHN DAVEY, of Hesketh How, Ambleside; Mr. TOULMEN, of Clapton; Mr. WIBLIN, of Southampton; Mr. BRAMLEY, of Halifax; Mr. WILDE, of Dublin; Mr. M'DOUGALL, of Henrietta-street; Dr. RADCLIFFE, of Henrietta-street; Mr. GEORGE SIMPSON, jun., of Bedford-street, Bedford-square; J. C. U.; Mr. BRANSBY COOPER, of Guy's Hospital, and New-street, Spring-gardens.

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ORIGINAL LECTURES.

CLINICAL LECTURE ON MEDICINE,

AT

KING'S COLLEGE HOSPITAL.

By GEORGE BUDD, M.D., F.R.S.,

Fellow of the College of Physicians, and Professor of Medicine in King's College.

SCROFULOUS ENLARGEMENT OF THE LIVER.

Frederick Woodman was a fair-haired lad, 15 years of age, very intelligent, but small in stature, and crippled by scrofulous disease of the right hip.

He was an orphan, and had spent all his life in London.

Four years ago he came under the care of Mr. Fergusson, on account of "morbus coxarius," with abscesses in the upper part of the right thigh. The abscesses broke, or were opened, leaving fistulous openings, which continued to discharge matter up to the time of his death.

Some time after this, between three and four years ago, his belly began to grow large, but he noticed nothing further till about two years ago, when he observed a definite swelling, the result of a large liver, in the epigastric and right hypochondriac regions.

This continued, and in the middle of last summer he came to me as an out-patient. The belly was then greatly distended, obviously in consequence of enormous enlargement of the liver and the spleen, the lower edges of which could be very readily traced. There were two fistulous openings in the upper part of the right thigh, which discharged freely. He was pale, but not at all jaundiced, and not much wasted in flesh.

There could be little doubt that the enlargement of the liver was the result of that peculiar change in its texture which is now and then found in connexion with scrofulous disease of the lymphatic glands or the bones, and which has been described as the "scrofulous enlargement of the liver."

Taking this view of the case, I prescribed for him, in succession, the oil of almonds as a substitute for cod-liver oil, nitro-muriatic acid, and muriate of ammonia.

These medicines gave him no marked relief, and on the 30th of October he came into the hospital.

At that time he was very pallid, but not particularly thin. The belly was enormously distended, and large veins were seen on its surface, passing up from the flanks.

There was now evidently a small quantity of fluid in the peritoneal sac, but the large size of the belly was owing to the liver and the spleen, the lower edges of which could still be very readily traced.

His appetite was tolerably good, and his tongue clean, and he slept pretty well; but his skin was dry, his pulse was above 100, and he complained constantly of thirst. For a few days he had been troubled with diarrhœa, which, he said, had made him feel weak. There had never been any jaundice, but there was now a faint sallow tinge in the conjunctiva.

The urine was acid, and contained a large quantity of albumen, being rendered almost solid by nitric acid. When it was examined under the microscope, a few transparent and slightly granular casts of the tubules of the kidney, without any oil-globules, were seen.

It was now plain that the kidneys were likewise diseased, and there could be little doubt that they had undergone much the same change as the liver.

For more than a month after he entered the hospital no striking change in his condition occurred.

He had occasionally a feeling of nausea, but the appetite continued tolerably good, and the tongue clean, and he generally slept well. He frequently complained of thirst, and the pulse was always rapid. It was never under 100, and occasionally as high as 120. The diarrhœa he had on his admission soon ceased, but more than once afterwards it recurred, and lasted a few days.

He occasionally complained of slight pain at particular parts of the liver, which were then also slightly tender on pressure.

The urine was throughout in good quantity, of sp. gr. 1008, and contained a considerable quantity of albumen, and, at times, a large quantity of lithic acid. About the middle of December the urine began to diminish greatly in quantity.

The following are the quantities noted as passed on the successive days, reckoning from 7 p.m. of one day to 7 p.m. of the next:—

Dec. 6	54 ounces	Dec. 10	48 ounces
7	42	11	47
8	45	12	44
9	54	13	44

During this time the quantity did not then vary much; the real variation was doubtless less than it appears to be from this table; for, whenever the quantity of urine is thus measured on successive days, it almost necessarily happens that what belongs to one day gets occasionally placed to the account of the next; and there is an apparent variation, even though none may really exist.

After the 13th of December, the following quantities were noted:—

Dec. 14	54 ounces	Dec. 19	30 ounces
15	42	20	22
16	36	21	17
17	36	22	12
18	40		

During these nine days, therefore, there was a rapid and progressive diminution of the quantity of urine, which at length became reduced to one-fourth of its former amount. The kidneys seemed to be rapidly blocking up. As the quantity of urine diminished from 54 ounces to 12, its sp. gr. rose from 1010 to 1015.

During the latter part of this time Woodman's appetite failed, and he was much purged and frequently vomited. He complained also at times of headache.

He gradually sank, and died, apparently from exhaustion, on the 29th of December.

The body was examined the next day, and those parts of it which presented any peculiar changes are on the table before you.

The liver is enormously enlarged, and its edges are much rounded. It weighs 8½lbs. avoirdupois, and in the body reached as low as the pubis. It is of a pale yellowish colour, and pits when pressed by the finger.

It had no unnatural adhesions, and there are no false membranes upon it; but its convex surface presents a few short linear fissures, which have resulted, I believe, from obliteration of small twigs of the portal vein, near the surface of the liver, and the consequent atrophy of the portions of liver which those twigs supplied. I have more than once before seen similar fissures on the surface of a scrofulous liver. The gall-bladder was filled with bile, which was viscid and of an olive colour, as bile usually is which has become concentrated in the gall-bladder. It was not analysed, but there was nothing unusual in its appearance. The large gall-ducts were apparently healthy, as were the large branches of the portal and hepatic veins.

The morbid changes were confined to the substance of the liver.

As we had inferred during life, there was a small quantity of serous liquid in the peritoneal sac.

The spleen was very large and very firm, and weighed 1½lb. It had no unnatural adhesions.

The kidneys are slightly nodulated on the surface, and their texture is changed like that of the liver; they are not, however, much increased in size. The two together weigh 10oz.

The head of the right thigh bone is completely destroyed by caries. All that remains of it are two fragments that were lying loose in the socket of the acetabulum.

There was not much else found amiss in the body.

The right lung was everywhere united to the pleura costalis by adhesions which were readily broken through. The left lung was free from adhesions.

The lungs themselves, and the heart, were sound.

The stomach and intestines were small and contracted, but presented no marks of disease; and the mesentric glands were little if at all enlarged.

Having now taken a general view of what was amiss, we may proceed to a more careful examination of the organs chiefly diseased. I shall, however, leave Mr. Fergusson to point out to you what is peculiar and instructive in the state

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of the diseased hip, in which I know he will take much interest, and shall confine my observations to the liver and the kidneys.

In all its upper broad and thick portion the liver presents no appearance of lobules, and seems composed of a uniform, greyish, compact, and in some degree transparent substance; its cut surface looking not unlike that of firm bacon.

In some parts, however, near the edges of the liver, the lobules are very conspicuous. They are enlarged, as in the fatty liver, and have yellow, opaque margins, contrasting strongly with the central portions, which are greyish and compact, and somewhat transparent, as the entire substance of the liver is in its upper portion.

On looking through a common magnifying glass, the yellow margin is seen to be made up of a series of yellow spots,—like a bead necklace,—in the centre of each of these spots is the opening of a small vessel. The opaque yellow matter seems then to surround what I take to be the ultimate twigs of the portal vein.

On examination under the microscope, the grey compact substance presents a few gland-cells, which contain a good deal of granular matter, and are in consequence somewhat opaque, but are not enlarged.

The opaque yellow matter composing the margins of the lobules, is more readily torn up for microscopic examination than the grey substance, and exhibits under the microscope a greater number of detached cells, and more oil globules, both in the cells and out of them.

The matter to which the liver owes its large size, seems, then, to be within the lobules.

The question then occurs, What is the nature of this matter? The microscope shows us, plainly enough, that it is not oil, and that this disease is very different from the fatty liver.

On this point the information given by the microscope is confirmed by chemical analysis.

Mr. Beale has been kind enough to make an analysis of a portion of the liver for me, and the following is the result:—

In 100 parts there were water . . .	80·15
Animal matter, with much albumen . .	16·098
Extractive matter, soluble in water .	1·986
Fatty matter	·575
Alkaline salts	·784
Earthy salts	·407
	100·000

So that there is little more than half a grain of fatty matter in 100 grains of the liver.

This analysis agrees closely with an analysis also made for me by Mr. Beale of a scrofulous liver, taken from a lad named Shaw, who died in the hospital two years ago, and who had been for some time under the care of Mr. Partridge, for scrofulous disease of the bones. In that instance, however, rather more than one grain in a hundred consisted of fatty matter.

Both analyses contrast strongly with the analysis of a very fatty liver, made for me a short time ago by Mr. Beale.

In the fatty liver, more than 65 parts in a hundred—about six-sevenths of all the *solid* matter in the liver—consisted of fat.

The fatty liver and the scrofulous liver, in shape and size, and general appearance, are not unlike; but in the fatty liver the enlargement is owing to the interstitial deposit of fatty matter; in the scrofulous liver, to the presence of matter chemically related to albumen.

We may turn now to the kidneys, in the examination of which I have had the valuable assistance of Dr. Johnston.

The kidneys are, as I have said, slightly lobular on the surface, but otherwise they have the same general appearance as the liver. They are of a yellowish white colour, and on the capsular surface present very little appearance of vascularity, or of lobular structure.

Some of the tubes are filled with a material like that in the liver, and this in some places, being squeezed out, forms large "waxy" casts, like those observed in the urine during life.

The tubes which contain the waxy material have no epithelial lining. In some of the other tubes, not thus blocked up, the epithelium is opaque and granular, having undergone a change like that in the liver cells.

Microscopic examination confirms, then, the opinion which the first sight of the two organs suggests,—that the liver and the kidneys have undergone the same kind of change.

In some of the medullary cones of the kidney, near their apices, are opaque white lines, plainly seen by the naked eye. Under the microscope this white matter is found to consist of crystals, of a square prismatic form. I could not tell by their shape what they are composed of, and have sought the aid of Mr. Beale, to make out this point by chemical analysis. The result of this analysis is, that the matter is

Insoluble in boiling acetic acid, and in alcohol, and in potash.

Insoluble in cold water, but soluble to a great extent in boiling water.

Soluble in strong nitric acid, with effervescence. When this solution is evaporated to dryness, the dry residue, treated with ammonia, gives the purple colour of murexide.

After incineration, it leaves no appreciable residue.

The conclusion is, that this salt is some lithate.

You will recollect that the urine often contained abundance of lithic acid.

The case of Woodman is not the only one in which I have found a high degree of scrofulous enlargement of the liver, in conjunction with similar disease of the kidneys. This combination existed in the case of Shaw, to which I just now referred.

In the case of Shaw, as in that of Woodman, the disease of the kidney seems to have come on later than that of the liver. The liver had attained a large size before any disease of the kidney was suspected. It seems probable, therefore, that in such cases, the liver becomes blocked up first, and then the kidneys.

In this scrofulous disease the liver increases in size, in much greater degree than the kidney. In the case of Woodman, the liver reached to the pubis, and almost filled the belly, while the kidneys, you will remark, are not very much larger than they should be.

The same thing happens in the fatty degeneration of these organs. The liver enlarges in much greater degree than the kidney, and contains a very much larger proportion of fatty matter.

But, although the foreign matter is relatively in much smaller amount in the kidney, it does much more mischief.

Notwithstanding the large size of the liver in Woodman, there was no decided jaundice; and, after death, the gall-bladder was found filled with dark-coloured viscid bile, just as it usually is in persons who have taken no food for some time before death.

The bile presented, then, no unusual appearances, and enough of it was secreted to prevent the occurrence of decided jaundice.

There was, indeed, some obstruction to the passage of blood through the liver; but not enough to cause much ascites.

If, then, the disease of the liver had existed alone, Woodman might have continued to live for a long time. It was the disease of the kidney that brought his life to a close.

This disease of the kidneys caused a constant drain of albumen, and thus gradually exhausted the strength; and, in the end, destroyed life quickly, by preventing the proper excretion of urine.

A similar difference is observed in the effects of the fatty degeneration of these two organs.

The liver, from fatty degeneration, may be doubled in weight, and much more than doubled in bulk, but may still perform its office tolerably well; the blood may pass freely through it, and there may be no jaundice, and, after death, the bile found in the gall-bladder may present no unusual appearances.

Fatty degeneration of the kidney, however, although the organ is increased in bulk in much less degree, and the fatty matter forms a much smaller proportion of the entire weight, leads to albuminous urine and dropsy, and destroys life.

The scrofulous enlargement of the liver may generally be distinguished while the patient is living. It comes on during the course of scrofulous disease of the lymphatic glands, or of the bones; and its effects are intermediate between the effects of fatty liver and those of cirrhosis. The passage of the blood through the liver is somewhat impeded; less impeded than in the fatty liver, more so than in cirrhosis.

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The secretion of bile is somewhat impaired; more impaired than in the fatty liver, less so than in cirrhosis.

If in a lad with scrofulous disease of the bones we find great enlargement of the liver, with a *small* quantity of liquid in the peritoneal sac, and *very slight* sallowness of the conjunctivæ; and if the surface of the liver be smooth, and its lower edges rounded, and if it be occasionally slightly tender at certain spots, there can be little doubt that the liver does not owe its size to an accumulation of fatty matter, but to the peculiar disease we are considering.

If, after a time, the urine become albuminous, and if, when the urine is examined under the microscope, large waxy-looking casts of the tubes are seen, there can be no doubt of the existence of this peculiar change both in the liver and in the kidney.

On the subject of treatment I have but few remarks to make.

During last summer Woodman took various medicines: almond oil, nitro-muriatic acid, muriate of ammonia; but none of them lessened the size of the liver, or did any essential good.

At the time of his entrance into the hospital, at the end of October, his condition was obviously hopeless; and no medicine was given him except with the view of palliating, as they occurred, particular symptoms.

From the failure of the medicines I have mentioned in the case of Woodman we should not, however, be warranted in inferring their complete inefficacy to remedy or prevent this scrofulous enlargement of the liver in all other cases. We must bear in mind that in Woodman the scrofulous disease of the thigh bone, which was seemingly the cause of the changes in the liver and the kidney, was not remedied; and we can hardly expect to arrest any such disease while its cause continues in active operation.

If the diseased limb could have been removed, or the caries of the bone stopped before the kidneys became seriously damaged, it is not impossible that the effect of our remedies might have been more satisfactory. I have more than once seen a large liver, which I have supposed to have undergone the change we have been considering, diminish very much in size under the use of muriate of ammonia continued for some time.

LECTURES ON PUBLIC HEALTH.

ADDRESSED TO THE STUDENTS OF THE THEOLOGICAL DEPARTMENT OF KING'S COLLEGE.

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Contents.—Vaccination.—Awful Ravages of the Small-pox.—Small-pox and the Plague compared.—Calculations of Sir Gilbert Blane and Dr. Black.—The Small-pox among the American Indians and Ceylonese.—Inoculation and Vaccination.—Introduction of Inoculation into England.—Introduction of Vaccination.—Mortality from Small-pox before Inoculation compared with the Mortality as modified by Inoculation and Vaccination.—Inoculation and Vaccination compared.—Extirpating Power of Vaccination.—Testimony of Sir Gilbert Blane.—Vaccination in the Army.—Jenner rewarded by Parliament.—Establishment of the National Vaccine Institution.—Mortality from Small-pox in England and Wales in 1838, 1839, and 1840, compared with the Mortality in France and Austria.—Blindness caused by Small-pox.—Number of Blind Persons in England.—The Vaccination Extension Act—Its Results.—Mortality in the Metropolis since the passing of the Act.

From simple precautions in diet and choice of locality affecting the health of our soldiers and sailors, (the subjects of my last lecture,) I pass on to a preventive measure of a very different kind, admitting of application not to this or that class—not even to this or that nation—but to every human being without exception—I mean vaccination, the preventive of small-pox, the great discovery of Jenner.

That we may form some idea, however inadequate, of the benefits conferred upon mankind by this providential discovery, we must call to mind what the small-pox was before the time of Jenner. It is no exaggeration to say of it, that it was beyond comparison the most frightful of pestilences. Unlike the black death, the sweating sickness, or the plague, which, after one or more visits, with intervals of entire freedom or partial immunity, disappeared from amongst us, *small-pox*, since the date of its introduction into Europe by the irruption of Mahomet and his followers from the deserts of Arabia, has been a naturalised plague, just as, ever since its introduction into the Continent of America some three centuries ago, it has continued to attack and destroy both the aborigines and the Anglo-Saxon colonists.

Again, unlike the plague, which has never been known in India, China, North and South America, or the tropical or arctic regions; and which, in countries liable to its invasions, seldom appears but at one season of the year, and in some of them only at long intervals, small-pox is a disease which rages in every climate and at all seasons of the year, and spares neither rank, sex, nor age. From the moment of its introduction among a people, it continues to prevail every year, with more or less severity, carrying off great numbers of victims, and afflicting the survivors to a very large extent with blindness, deformity, scrofula, and impaired health. About thirty years ago, Sir Gilbert Blane, comparing the ravages of small-pox with that of plague, thought himself "greatly within the truth in asserting, that small-pox has destroyed a hundred for every one that has perished by the plague." It is true, that in its last outbreak in London, in the year 1665, the plague carried off nearly 70,000 victims in a few months; but Sir Gilbert Blane calculates the deaths from small-pox, recorded in the Bills of Mortality, from that time up to the year 1820, at more than 300,000; and Dr. Black, who, towards the end of the last century, wrote an able "Arithmetical and Medical Analysis of the Diseases and Mortality of the Human Species," estimates the annual mortality in Europe from small-pox at 494,000. The annual deaths from small-pox, within the narrow limits of the London bills of mortality, during the first seventy-five years of the 18th century, were considerably above 2000.

These few considerations will suffice to convince you that small-pox, before it had been mitigated by vaccination, was the most frightful and destructive pestilence which has ever existed. But, if you would form for yourselves a true and vivid conception of the horrors of this loathsome and fatal pestilence, you must see it at work among a tribe of savages.

Mr. Alexander Mackenzie, an enterprising and intelligent traveller, shall guide us in this matter. Speaking of the ravages of the small-pox among the North American Indians, he says:—"It spread its destructive and desolating power as the fire consumes the dry grass of the field. The fatal infection spread around with a baneful rapidity which no flight could escape, and with a fatal effect which nothing could resist. It destroyed, with its pestilential breath, whole families and tribes; and the horrid scene presented to those who had the melancholy and afflicting opportunity of beholding it a combination of the dead, the dying, and such as, to avoid the horrid fate of their friends around them, prepared to disappoint the plague of its prey by terminating their own existence. The habits and lives of these devoted people, which provided not to-day for the wants of to-morrow, must have heightened the pains of such an affliction, by leaving them not only without remedy, but even without alleviation. Nought was left them but to submit in agony and despair. To aggravate the picture,—if aggravation were possible, may be added, the putrid carcases which the wolves, with a furious voracity, dragged forth from the huts, or which were mangled within them by the dogs, whose hunger was satisfied with the disfigured remains of their masters. Nor was it uncommon for the father of a family, whom the infection had not reached, to call them around him, to represent the cruel sufferings and horrid fate of their relations from the influence of some evil spirit who was preparing to extirpate their race, and to incite them to baffle death, with all its horrors, by their own poniards. At the same time, if their hearts failed them in this necessary act, he was himself ready to perform the deed of mercy with his own hand, as the last act of his affection, and instantly to follow them to the common place of rest and refuge from human evil."

Something to the same effect is the description of the ravages of small-pox in Ceylon, where, according to a very moderate calculation, it carried off a sixth part at least of the inhabitants. The Rev. Mr. Cordiner tells us that the terror of the inhabitants for this pestilence was so great, that, when it appeared, husbands were wont to forsake their wives and parents their children, leaving them only a little

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drink and food. When villages were thus abandoned, wild hogs, bears, panthers, and elephants often issued from the woods and jungles, broke down the enclosures, and ravaged the gardens and orchards. Every sweet-smelling flower and esculent herb was rooted up; the plantain and cocoa-nut trees were levelled with the earth, the cottages unroofed, and not even the bones of the deserted sick were afterwards to be found.

For this frightful pestilence it pleased God, in his own good time, to reveal two great means of mitigation—inoculation and vaccination; the one consisting in imparting to the patient, previously prepared by a course of medicine, and selected at a suitable age, and in a good state of health, the small-pox itself, by inserting matter taken from a patient labouring under the disease into the fleshy part of the arm. The other (vaccination) consisted (as its name implies) in substituting for the small-pox virus a matter taken from the udder of the cow. Inoculation was introduced from Constantinople into England, by Lady Mary Wortley Montagu, in 1721; but, for reasons which it would take too long to specify, the practice did not become at all general in England till towards the middle of the 18th century. Vaccination may be said to have been discovered in 1796, though the leading facts on which the discovery rested were known to Jenner fifteen or twenty years before. In 1801, 6000 persons had already been vaccinated; and the new practice soon superseded the old one of inoculation. Vaccination was introduced into America in 1799, into France in 1800, and into the East Indies in 1802. In 1802 and 1807 Parliament, in two successive grants, voted to Dr. Jenner a reward of 30,000*l*.

In the history of small-pox, then, we have three different periods to compare with each other; a period anterior to the introduction of inoculation; a period during which inoculation was practised; and a period during which inoculation was superseded by vaccination. As inoculation was introduced into England in 1721, the deaths from small-pox during the ten years ending 1719, will fairly represent the mortality occasioned by small-pox, unmodified by the practice of inoculation. Now, as I have already stated, the practice of inoculation did not gain much ground till towards the middle of the 18th century, and did not become general in England till the last quarter of that century. Hence the ten years from 1740 to 1749, inclusive, will correspond to the introduction of inoculation into partial use; and the ten years from 1790 to 1799, inclusive, will mark the time when it was largely and generally practised. In like manner, the ten years from 1810 to 1819, inclusive, will represent a period during which inoculation was to a great extent, though by no means altogether, superseded by vaccination. The ten years from 1840 to 1849, inclusive, will represent a period when, small-pox inoculation having fallen into entire disuse, and been even declared an illegal practice, vaccination has come to be the only preventive of small-pox employed or permitted. It must not, however, be forgotten, that large numbers of persons still remain unvaccinated, though the greatest possible facilities are offered for the performance of the operation, and that without charge to the poor.

I have arranged the deaths by small-pox for the five periods of ten years each to which I have just referred, in a tabular form, so that the numbers may admit of easy comparison.

	Deaths from Small-pox.	Estimated Population within the Bills of Mortality (limits in 1726).	Deaths from Small-pox in a million inhabitants.
1. Ten years ending 1719, before inoculation	21,228	675,691	31,416
2. Ten years ending 1749, inoculation partially practised	20,029	708,188	28,282
3. Ten years ending 1799, inoculation in general use ..	17,685	773,344	22,863
4. Ten years ending 1819, vaccination in general use ..	8,334	1,035,865	8,045
5 Ten years ending 1849, inoculation superseded by vaccination (whole metropolis).....	9,174	1,912,172	4,798

A small decrease in the number of deaths from small-pox, coincident with the partial practice of inoculation; a still more marked decrease under the more general use of that palliative; but a far more remarkable falling off in the number of deaths from small-pox, concurrently with the introduction and extension of vaccination: such are the results stamped on the very face of the table which you have before you,—results fully borne out by Mr. Farr, who says that, "In 1771 to 1780, not less than 5 in 1000 died annually from small-pox; while in 1801 to 1810, the mortality sank to 2; and in 1831 to 1835, to 0·83," or less than 1 in 1000.

The decrease in the number of deaths from small-pox in the second and third periods of ten years, is a circumstance in favour of the views of the supporters of inoculation, who affirm that that practice, though objectionable in one point of view, was on the whole beneficial.

That inoculation may really have been the means of saving life to some extent, does not seem altogether improbable, when we bear in mind that in place of the mortality of *one in four*, which attended the small-pox caught in the usual way, the loss under inoculation, when skilfully and carefully practised, did not exceed *one in* 500. So that it is quite possible that the mischief which inoculation wrought by spreading the disease among those who might never have caught the natural small-pox, was counteracted by the good it effected in reducing the danger to a very insignificant amount. But, even admitting the justice of this compensation, the benefit really due to inoculation does not exceed the saving of 8500 lives in 31,500; whereas the boon conferred by vaccination is represented by a reduction of the mortality from nearly 23,000 in the ten years ending 1799 (the very hey-day of inoculation) to 8000, and then to less than 5000, being a saving of life more than twice as great as that effected by inoculation.

But the superiority of vaccination over inoculation is only partially and imperfectly represented by the greater saving of life which it effects. It has the great additional merit of requiring no preparation or confinement, of producing very trifling indisposition, and of entailing no danger. Above all, it is free from the great objection to inoculation, that, while it mitigates the disease in the individual, it brings the infection home to those who may happen to be unprotected, and who might never have been exposed to the contagion of the natural small-pox.

Taking all these considerations into the account, there can be no doubt that the Legislature was perfectly justified in rendering the performance of inoculation a legal offence, and in giving, by the appointment of public vaccinators, to be remunerated by a moderate fixed charge, large facilities for carrying the blessing of vaccination to the very doors of the poor.

But, undisputed as is the superiority of vaccination, and undoubted as are the benefits it has conferred, they are small indeed compared to those which it was calculated to bestow if the practice of it had been as universal as it ought to have been. It was the cherished opinion of Jenner himself, that we possess in vaccination a means of entirely eradicating the small-pox, and some facts are on record which seem fully to bear him out in that view of the case. Thus, Sir Gilbert Blane tells us that he was informed, on good authority, "that vaccination had been practised with so much energy and success in Lima, that for the last twelve months there had occurred not only no deaths from, but no case of, small-pox; that the new-born children of all ranks are carried as regularly to the vaccinating-house as to the font of baptism; that the small-pox is entirely extinguished all over Peru, nearly so in Chili, and that there has been no compulsory interference on the part of the Government to promote vaccination." Sir Gilbert Blane goes on to say, "It is now matter of irrefragable historical evidence, that vaccination possesses powers adequate to the great end proposed by its meritorious discoverer in his first promulgation of it in 1798, namely, the total extirpation of small-pox. The first proof of this was at Vienna, where, in 1804, no cases occurred except two strangers, who came into the city with the disease upon them. In 1805 there did not occur a single death from it in Copenhagen.

I quote this more detailed account of the progress of the small-pox in Denmark from a MS. of Jenner's, published by Dr. Baron in his life of Jenner. "From the year 1762 to 1792, the number that died of small-pox in the Danish dominions amounted to 9728. About the year 1802, vaccination was first introduced, and the practice became general, but not universal; however, fifty-eight persons only died of

the small-pox to the year 1810. Vaccination, by command of the king, was now universally adopted, and small-pox inoculation prohibited. And from the year 1810 to the year 1819, not a single case of small-pox has occurred." From the same MS. I quote the following passage. "From Bombay, I learn the small-pox is there completely subdued, not a single case having occurred for the last two years."

"Dr. Sacco, the indefatigable superintendent of vaccination in Lombardy, (I resume my quotation from Sir Gilbert Blane) stated in his annual report, 3rd of Jan. 1808, that small-pox had entirely disappeared in all the large towns in that country; and that in the great city of Milan it had not appeared for several years. Dr. Odier, of Geneva, so favourably known for his high professional, scientific, and literary acquirements, testifies that, after a vigorous perseverance in vaccination for six years, the small-pox had disappeared in that city and the whole surrounding districts, and that when casually introduced by strangers, it did not spread, the inhabitants not being susceptible. The central committee in Paris testify, in their report of 1809, that the small-pox had been extinguished at Lyons and other districts of France."

"These (I still quote from Sir Gilbert Blane) are selected as some of the earliest and most remarkable proofs of the extirpating power. But it is demonstrable that if, at the first moment of this singular discovery, at any moment since, at the present or any future moment, mankind were sufficiently wise and decided to vaccinate the whole of the human species who have not gone through the small-pox, from that moment would this most loathsome and afflicting of all the scourges of humanity be instantaneously and for ever banished from the earth." If for this somewhat too enthusiastic view of the case, we substitute (what Sir Gilbert Blane probably intended to affirm,) that if in any way it could be brought about that every man, woman, and child, for a term of years could be vaccinated, small-pox would gradually die out, and ultimately disappear, like a fire extinguished for want of fuel, we should be stating what all experience and analogy seem to warrant. In our own country, we have not, that I am aware, had any proof afforded us of the extirpating power of vaccination. But we have had some striking and encouraging illustrations of the power of vaccination when systematically practised. The army affords us one such instance. In Her Majesty's dragoon guards and dragoon regiments, which, in common with the rest of the army, are submitted to inspection, and vaccinated without exception, if that operation is found to have been omitted, "the deaths from small-pox, during a period of seven and a quarter years, in an average annual strength of 6165 men, were only *three*,—a proportion which would represent an annual mortality of 1 in 14,900 adult males!"

The value of vaccination is shown in a very remarkable manner by the experience of certain severe epidemics of small-pox, which have taken place since vaccination came into general use in this country. There was such an epidemic in Scotland in 1818-1819, when a careful analysis of the cases showed, that out of 205 cases occurring in persons unprotected either by vaccination or previous small-pox, 50 died, being one death in every *four* cases; out of 71 cases in which small-pox had occurred a second time, there were *three* deaths, or one in 23; while out of 310 cases, occurring after vaccination, one only died! In this instance, then, the protecting power of vaccination proved to be more than 13 times as great as the protecting power of small-pox itself. A similar result was established in the epidemic of small-pox, which occurred at Marseilles in 1828. It was estimated that the population consisted of 8000 *unprotected* persons; of 2000 who had been *inoculated*, and of 30,000 who had been *vaccinated*. Now, of these 8000 unprotected persons, 4000, or one-half, were attacked by small-pox; of the 2000 who had been inoculated, 20 were attacked, being 1 in 100; and of the 30,000 who had been vaccinated, 2000, or 1 in 15, were attacked. The mortality of the several classes was as follows:—Of the 4000 unprotected persons, 1000, or 1 in 4, died; of the 20 inoculated persons, 4, or 1 in 5; of the 2000 vaccinated persons, 20, or 1 in 100! It would seem, then, that the practice of vaccination is less effectual in preventing small-pox than that of inoculation; but that, at the same time, the disease when it does occur after vaccination is of so mild a character as to destroy only 1 life for every 20 sacrificed by small-pox occurring after inoculation.

The relative value of vaccination and inoculation, and the proportional risk of the protected and unprotected, will be best seen by supposing 15,000 unprotected, inoculated, and vaccinated persons, respectively, to be exposed to the danger of catching small-pox. The results as regards these several parties are shown in the annexed Table.

	Unprotected.	Inoculated.	Vaccinated.
	15000	15000	15000
Attacked	7500	150	1000
Deaths	1875	30	10
Ratio of attacks	1 in 2	1 in 100	1 in 15
Ratio of deaths to attacks....	1 in 4	1 in 5	1 in 100

In order to form a just idea of the superiority of vaccination, we must not forget to add to the lives saved by it, the blindness, deformity, and lingering debility which it is the means of preventing, in those cases which do not prove fatal; for it may safely be assumed that these untoward consequences bear a certain relation to the fatality of the disease, being of more frequent occurrence where the mortality is highest.

I think that I have now said enough to convince you of the great value of this interesting discovery, and of the vast saving of human life and human suffering which it has been already the means of effecting.

The discovery of this providential means of preventing the most loathsome and fatal of diseases has imposed upon us, as individuals, and on the Legislature of the country, a duty proportioned to the boon conferred. Let us now inquire how this duty has been performed.

I have already reminded you, that the House of Commons took early cognizance of Jenner's discovery, and rewarded him by a grant of 30,000*l*. This grant was made in two separate sums of 10,000*l*. and 20,000*l*., in the two years 1802 and 1807. In the year 1808 the Legislature established and endowed the National Vaccine Institution, which has ever since that time performed the twofold function of vaccinating a certain small fraction of the inhabitants of London, and of distributing lymph throughout the world. The Small-pox Hospital, and other important centres for the performance of vaccination and the distribution of lymph, have also been established and supported by the liberality of the public.

How utterly insufficient for the great object which ought to have been held steadily in view,—the extirpation of small-pox,—all these efforts of Government and of individuals were, up to so recent a date as the year 1838, may be inferred from the significant fact, that in that year the deaths from small-pox, in England and Wales, amounted to no less than 16,268. In the following year (1839) they were 9131, and the next year (1840) 10,434. The average for these three years, therefore, was nearly 12,000. Now, let us see what proportion this high mortality from small-pox bore to the then population of England, and let us compare this proportion with that which obtained in foreign countries.

The Registrar-General, in his Sixth Annual Report, makes this comparison. He shows that, while

France lost by small-pox, in the year 1842, 3317 persons, being 91 in every million of her inhabitants; and

Austria, in the same year (1842), lost 4,411, or 204 in every million;

England, in the year 1838, lost 16,268, or 1101 in every million. (In 1839 she lost about 690, and in 1840 about 650 in the million.)

I must repeat these figures:—

France, (frivolous, thoughtless, careless France,) 91 in the million.

Austria, (despotic, cruel, treacherous Austria,) 204 in the million.

England, (enlightened, humane, economic, Christian England, the country of Jenner,) 1,101 in the million.

I shall not enter at present into a calculation of the waste of money involved in these 16,000, or even 10,000, unnecessary deaths from small-pox, or in the four or five times as many attacks, not fatal, but equally unnecessary, all of which might have been prevented by a wise expenditure of a small fraction of the money thus thrown away; but I must make a brief allusion to one of the most melancholy consequences of the small-pox,—I mean the loss of sight. Dr. Laycock, of York, ascertained that one half of the inmates of the Blind Asylum in that city owed their loss of sight to small-pox; and he brings this melancholy fact into strong relief, by citing a foreign authority, to the effect that in Hanover and

Prussia he never saw a single case of blindness from the small-pox. Here, then, we have the Blind Asylum of York of twice the necessary size, and incurring every year twice the necessary expense, in palliation of an affliction which a few pounds, expended on the simple operation of vaccination, would have most assuredly prevented. Carry this principle out to the entire kingdom, and of the 24,000 which, according to the Registrar-General, makes up the blind population of Great Britain and Ireland, 12,000 would have had that precious sense preserved to them by the performance of vaccination.

It was chiefly in consequence of the high mortality from small-pox in the year 1838, and the comparatively trifling decrease in the next two years, that the Legislature again interfered, in the year 1840, for the extension of the practice of vaccination. This interference took the very efficient form of the Vaccination Extension Act, which, by throwing the expense of vaccination, in the case of the poor, upon the Poor-rates, and authorising the appointment of public vaccinators in every Union throughout the country, virtually threw the responsibility of promoting vaccination on the public. The Government has done its part; it remains for us to carry its beneficent intentions into full effect. Henceforth the matter is in the hands of individuals, whose responsibility must be measured by their intelligence and their opportunities.

A few words as to the working of this important Act of Parliament. It was passed, as I have stated, in the year 1840, and worked so well, that the sum expended in extending vaccination was upwards of 10,000*l.* in 1841, more than 33,000*l.* in 1842, upwards of 16,000*l.* in 1843 and 1844, and nearly 26,000*l.* in 1845. The average sum paid for each successful vaccination being 1s. 9d., and the average sum expended in the year 20,000*l.*, it follows that, taking one year with another, about 230,000 persons have been successfully vaccinated; but, as the number of births registered year by year, greatly exceeds 450,000, it follows that for every 140 or 150 children born into the world, only 100 would be protected by means of the public vaccinators. When, however, we take into account the large number of children vaccinated at hospitals and dispensaries, and the children of the upper and middle classes vaccinated at the cost of their parents, the number of the unprotected will have to be greatly diminished.

If what I have told you of the protective power of vaccination be true, you will expect to hear that this wise measure was soon followed by a diminished mortality from small-pox. In the three years 1838, 1839, and 1840, preceding the operation of the Act, the deaths from small-pox amounted, as you will remember, to 16,268, 9131, and 10,434, being at the rate of nearly 12,000 a-year; but in the two years immediately following the passing of the Act, viz., 1841 and 1842, the deaths from small-pox were only 6368 and 2715, the mean of the two being nearly 4550. From an average of 12,000 to one of 4500 in so short a space of time, ought surely to encourage us to persevere in the same wise course of prevention. In the metropolis, in consequence probably of the great difficulty of bringing the influence of individuals to bear upon the poor, the Vaccination Extension Act has been of less service than in the rural districts; for the deaths from small-pox, which, in 1840, amounted to 1240, fell in 1841 only to 1068, though in the following year, 1842, they reached the very low figure of 367. In 1843 they rose again to 439, and in 1844 to the appalling number of 1804. In 1845 they fell again to 909; in 1846 to 257, to rise again the following year to 955. On the whole the mortality has diminished, but not to such an extent as the extraordinary facilities for vaccination would have led us to expect.

In my next lecture, gentlemen, I shall have something further to say on the subject of vaccination, and something on the character of Jenner. Howard and the gaol fever will next engage our attention.

War Medals.—The *London Gazette* contains a notice that war medals will be awarded to the army for certain battles and sieges in India, from 1803 to 1826, enumerated in the *Gazette*, and also to the seamen and marines engaged in the Burmese war. The surviving medical officers of those engagements will have to apply—the military, through the commanding officer of the regiment, if still alive; if not, through the Adjutant-General; the naval, through the Secretary of the Admiralty.

ORIGINAL COMMUNICATIONS.

ON THE

MODE OF ORIGIN AND PROPAGATION OF THE EPIDEMIC CHOLERA, IN HUDDERSFIELD AND THE NEIGHBOURHOOD, IN THE AUTUMN OF 1849.

By JOHN TAYLOR, M.D. Lond.

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(Continued from page 259.)

Case 54.—Sept. 25th. I began to suffer from the cholera poison myself. I first visited a cholera patient Sept. 18th, but only saw her after death (Case 27.) The next one that I saw was Sept. 21st, at eight p.m. I visited, on this occasion, a considerable number in succession, at Johnny Moorehill, the place where the disease exhibited the greatest malignancy. Sept. 22nd.—I did not see them, in consequence of a sick headache, of which I am frequently the subject. On the 23rd, I was called up at six a.m., to visit the same series of patients. I took the precaution of getting my breakfast before going, especially as I had taken scarcely any food the day before. In the afternoon I saw them again. On the 24th, at five p.m., I accompanied some gentlemen into the fields near Paddock, to select a site for a Cholera Hospital. The grass was damp. I went next to inspect an old fish-pond, which will be described hereafter. I next visited all the cholera patients, and got home late in the evening, after a hurried day's work. Sept. 25th.—My habitual morning evacuation was rather liquid. About nine o'clock I felt rather chilly. Soon after, I visited the cholera patients again. The chilliness and feeling of general indisposition increased in the afternoon, but I did my usual work until five p.m. I then took some warm tea, and lay down upon a sofa near the fire. During the evening I felt hot and chilly at the same time. My head was heavy, and I had a good deal of vertigo and singing in the ears. Pulse frequent, about 120. About nine p.m. had a second evacuation, scanty, but liquid. I was now visited by three of my medical friends (Mr. Greenwood, Mr. Clarke, and Mr. Booth.) By their advice I took a dose of an astringent mixture, with mxx. tinct. opii. I went to bed, and slept until twelve o'clock. On awaking, I had two, or perhaps three motions, within a short time, all scanty, and moderately liquid. The most striking symptom, however, at this time was the prostration of strength. I have suffered many illnesses, attended with much debility; but the sense of sinking which I now felt exceeded anything that I ever experienced in my life. When placed upon a night-chair, I could not maintain the erect position without being supported. All this had supervened within a few hours, and after only a very small amount of liquid had been discharged by the bowels. My medical friends were again sent for, and thought the prostration so serious, that they did not consider it proper to leave me, and very kindly remained all night. I repeated the astringent (mist. cretæ, conf. aromat., tinct. catechu, with tinct. opii.) The bowels were very little moved afterwards. At three a.m. I had a starch enema, with 40 minims of tinct. opii. This quieted the bowels more than anything. They were not again moved for some hours. Soon after three o'clock I vomited. This was the only time I was sick. The matter ejected seemed to consist almost exclusively of the medicine which had been taken. I had after this a large sinapism on the abdomen.

Sept. 26.—Prostration considerable; tongue thickly furred; a loathing of all food; skin hot; pulse 100 or more; several scanty motions, accompanied with tenesmus. From this time my improvement was progressive, and I considered myself convalescent by the 30th September.

The symptoms I have detailed were rather those of dysentery than of the severer forms of cholera. Yet I feel persuaded they were the effects of the choleraic poison. My medical attendants thought the same, both on account of the extreme prostration of strength, and the characteristic expression of countenance. I am satisfied, likewise, that the poison was imbibed at Paddock, either from the patients or

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the place. I was quite well before visiting the patients, and was not elsewhere exposed to any known causes of the disease. The period of incubation would probably be between 84 and 50 hours.

Case 63.—Richard Berry, aged 64. Resides at Folly Hall, half a mile from Huddersfield, and about a mile from Paddock. He was engaged as a nurse, and went to Johnny Moore-hill, to wait upon Mrs. Micklethwaite and her two sons, all ill of cholera in one house. He began his attendance on the evening of Sept. 25, or the morning of Sept. 26, and was then quite well. On the morning of Sept. 29, he was attacked with cholera, was removed to his own residence the same day, and died on the 30th, within 24 hours from the beginning of the illness. There can be very little doubt that this man took the disease at Johnny Moore-hill. The period of incubation was within three days.

This patient lived in a cellar alone with his wife, who waited upon him. On the evening of the day following his death, she had cramps in the legs but no diarrhœa. His son, also, who waited upon him, but did not live in the same house, soon after his father's death, had pains in the bowels, but no diarrhœa. The disease did not spread in the place into which it was thus introduced.

A few other facts may be briefly mentioned in connexion with the cholera at Johnny Moore-hill.

Edward Brook and his wife, a young couple, left their residence at this place on the first outbreak of the cholera, retiring to a village about a mile distant. They returned home on Friday, Oct. 5th, at ten o'clock, a.m. On Sunday morning, at one o'clock, the wife was seized with cramps in the feet and purging, but no vomiting. Medical aid was obtained, and on the 8th, when the facts were communicated to me, she was better. The husband at the same time had pain in the bowels, but no diarrhœa. A brother of the husband, who lived with them, and who went away and returned with them, continued well when I last heard, a fortnight afterwards. The house was shut up in their absence, and after their return they had no communication with their neighbours before they were taken ill.(a)

Case 67.—John Wm. Taylor, aged 3, left Johnny Moore-hill Sept. 28th, and went with his father and another child, to Meltham, a village five miles distant. Sept. 30th, he was attacked with vomiting and purging, and died within 24 hours. The disease was considered to be cholera. The father and several other persons in his house had diarrhœa before he left home. Here, no doubt, the poison was imbibed at home, and produced its effects about 48 hours after leaving the place. The mother, grandmother, and several other children, went to Liverpool at the same time that the father went to Meltham. No communication passed between the divided parties before the child's death.

There was no cholera in Meltham at the time the child went there, and the disease did not afterwards spread.

A family, living at Johnny Moore-hill, next door to Micklethwaites', immediately after the first death in their neighbour's house, (*i. e.*, on September 22,) left their home in terror, and moved to the house of a relative in the centre of the village. The two families, consisting of a considerable number of persons, now lived together in a small house, and occupied, in some instances, the same beds. Diarrhœa had appeared among those migrating before they left home. The disease did not further appear in them, nor were their relatives or new neighbours affected.

DESCRIPTION OF "JOHNNY MOORE-HILL," AT PADDOCK.

The village of Paddock is situated about a mile to the west of Huddersfield. It stands upon the side of a hill, and at the opening of a series of valleys extending for about seven miles to the Standedge hills. The population amounts to several thousands, and consists chiefly of operatives. The drainage is bad. The place called Johnny Moore-hill consists of two rows of houses at the western extremity of the village. They stand upon very steep ground, which is excavated to receive them, and at an elevation of 150 or 200 feet from the bottom of the valley. The houses are two storeys high, the back part of the lower storey being buried in the ground. Each house consists, for the most part, of one lower room, and a chamber over it. The windows and doors are all in the front, so that there is no thorough ventilation. The drains are very imperfect, the lower rooms damp in various degrees, and the privies badly constructed. The cesspools are open to the air, and very offensive. It is the poorest and most filthy part of the village, and Mr. Allatt, the surgeon, states that it is a place notorious for the prevalence of fever and other forms of disease. About 150 yards west of Johnny Moore-hill, and in the bottom of the valley, there is an old fish-pond. The water in this had been nearly all drawn off a few months before the cholera broke out. The pond has not been cleared out for thirty years, and contains a large accumulation of moist vegetable matter uncovered by water. The surface of this pond measures 1400 square yards.

It has been stated (I cannot say how accurately) that for two days before cholera appeared at Johnny Moore-hill the wind blew from the west, and, consequently, from the pond, towards the dwellings. Mr. Allatt informs me that during nearly the whole of the time in which the cholera was prevailing, the wind was easterly. Had this direction of the wind anything to do with the immunity from the disease experienced by the village at large? and had it any connexion with the appearance of the disease in three places situated respectively at the distance of one, one, and four miles to the west of Johnny Moore-hill during the prevalence of the epidemic at the latter place?

Water.—Nearly all the people at Johnny Moore-hill use the water of a spring which is near to them and partly under the embankment of the Huddersfield and Manchester Railway. They have used the same water for years, but they complain that it has been much harder and less pleasant to the taste; and that after rain it is often muddy, since the construction of the railway embankment a year or two ago. For two months preceding last July or August, two of the families had their drinking water from the portion left at one extremity of the fish-pond. This water is said to be not unpalateable.

Population.—Most of the houses were overcrowded. Many of the occupants were intemperate persons, a number of the lodgers being navigators.

The following table(a) will show the number of houses, the number of inhabitants in each house (distinguishing adults and children), the numbers attacked with cholera and diarrhœa, the number of those dying, and the number of those who fled at the outbreak of the disease.

Lower Row.

Number of House.	Number of Inmates. Adults.	Children.	Total.	Had Cholera.	Diarrhœa.	Died.	Fled.
1	6	0	6	1	2	1	3
2	4	0	4	0	3	0	0
(a) 3	2	4	6	4	0	1	0
4	2	4	6	0	3	0	0
5	2	5	7	0	4	0	0
6	5	4	9	1	0	1	8
7	2	3	5	1	0	1	4
8	3	5	8	1	7	1	0
9	5	4	9	5	1	2	1
10	2	3	5	0	0	0	5
11	3	0	3	0	(b) 1	0	3
	36	32	68	13	21	7	24

Upper Row.

(c) 1	6	0	6	4	0	2	0
2	1	5	6	0	4	0	0
3	1	2	3	0	1	0	3
4	2	3	5	2	0	1	0
5	4	2	6	0	0	0	0
6	2	4	6	1	2	0	0
7	2	2	4	0	2	0	0
8	2	4	6	0	2	0	0
	20	22	42	7	11	3	3
Total...	56	54	110	20	32	10	27

(a) There was only one room in this house.
(b) This patient was attacked after her return. (Mrs. Brook.)
(c) There was only one sleeping room in this house for six adults.

(a) Dec. 21st, 1849.—I have learned to-day that Mrs. Brooke is subject to cramps. She has had them before and also since the attack described above. It is possible, therefore, that she may not have suffered from the choleraic poison.

(a) For many of the facts contained in this table, as well as in the whole account of the disease at Paddock, I am indebted to the kindness of Mr Allatt. He has taken great pains to obtain correct information, and has most freely permitted me to make use of it.

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It appears that out of nineteen houses there were only two in which neither cholera nor diarrhœa occurred. The occupants of one of these two all fled, and so escaped. The occupants of the other were distinguished from their neighbours by their superior cleanliness. No other reason appears to explain their immunity. The house was rather crowded, containing six persons, of whom four were adults, and the cholera occupied the adjoining house on each side.

Of those who fled, all escaped the cholera except one child and a man.

The disease prevailed most in the most crowded houses, except in the house just referred to as distinguished for cleanliness.

There are two cottages placed across the western extremities of the two rows of houses, but situated fifteen or twenty yards from them. In one of these live three persons, adults; in the other eight persons, six being children. None of these eleven persons suffered except one in the second house, who had diarrhœa severely. All these people are members of one family. They are superior to their neighbours in Johnny Moore-hill in station, in cleanliness, and in their habits generally, and do not associate with them.

The inhabitants of the two rows of houses, at the outbreak of the cholera, amounted to 110, including both sexes and all ages. Of these, 52 were attacked with either cholera or diarrhœa, being nearly one-half. A further analysis of the cases is exhibited in the following table:—

Adults Exposed.	Attacked with Cholera.	Proportion.	Attacked with Diarrhœa.	Proportion.
56	13	1 in 4½	19	1 in 3 about
Or Excluding those who Fled.				
40 Children Exposed.	13	1 in 3	17	1 in 2½ ,,
54	7	1 in 8	13	1 in 4 ,,
Or Excluding those who Fled.				
43	6	1 in 7	13	1 in 3½ ,,

Of those exposed to the disease, therefore, the proportion of attacks of cholera was twice as great in adults as in children. The attacks of diarrhœa occurred in nearly the same proportions in the two classes of subjects.

Of the thirteen adults attacked with cholera, seven, or fully one half, died; and of the seven children attacked with cholera, three died, or rather less than one half.

Case 64.—Mary Goodyear, aged 39, residing at Cropper's-row, Huddersfield, had diarrhœa for some days. Was attacked with cholera Saturday, Sept. 29, and died in eight or nine hours. She was attended by Mr. Clough. This was the first case that occurred in this part of Huddersfield. The place in which she lived is unhealthy, and the drains are bad. There was a privy close to the house, which had not been cleaned out for twenty years, and the contents of which had soaked into the ashpit, made under the hearth within the house. It has been stated that this patient washed the clothes of cholera patients from Paddock, but the statement is not correct. She had walked one day through Paddock, and near to Johnny Moore-hill, but without stopping there, and had not in any other known way been exposed to contagion.

Case 65.—John Goodyear, aged 45, a cloth finisher, the husband of the last patient, was attacked with cholera Sept. 30th. He recovered.

Case 68.—John Goodyear, the son of the two last patients, aged five years, was attacked with cholera October 1st. He recovered.

Case 71.—Abraham Smith, aged 39. Attacked with cholera Sept. 30th, died Oct. 3rd. Resided at Cropper's-row, fifteen or twenty yards from Mary Goodyear. This man stood on one occasion within the door of Goodyear's house during her illness for about ten minutes, but did not enter further. Was treated by Mr. Booth.

In the beginning of October the cholera broke out at Slaithwaite, a village about 4½ miles west of Huddersfield. For the particulars of the cases which occurred there I am indebted to Mr. Roberts, surgeon.

Case 72.—Mary Quarmby, aged 74. Performs the duties of a barber. Lives in the centre of the village. She was attacked Oct. 1st, and died in twelve hours. She was attended by Mr. Dean, but was not seen until two or three hours before she died. No communication with any cholera patient could be traced.

The house in which she lived consists of two rooms; it is in the middle of a row of houses, and in a narrow street. She and her son (the next patient) alone lived in the house. They were dirty people. There were two heaps of ashes and refuse near the house but no bad drains. The water they used was the same as that used by their neighbours. It was supplied by a spring not far distant, and is considered good.

Case 81.—Josh. Gledhill, aged 50, son of the last patient, and lived in the same house; was attacked October 4th, and died after fourteen hours' illness. The case was well marked and was attended to by Mr. Roberts.

No other cases occurred in this part of the village.

Case 82.—A child, aged 18 months, lived near the river side in Slaithwaite, (at Dry-Mill,) was attacked, October 4th, with well-marked cholera. It rallied after twelve hours, but died a day or two after in convulsions. Mr. Roberts believes it is not possible that this child could have had any communication with the preceding patients. The locality is low, as well as near the water.

The next cases occurred at "Water-Side," in Slaithwaite, about 200 yards to the east of the village.

Case 83.—Charles Varley, aged 36, a small clothier, was attacked October 7th, and died in a few hours, with all the ordinary symptoms of cholera. He was attended by Mr. Dean.

Case 86.—Mrs. Varley, the mother of the last patient, aged 57, was attacked October 10th, and died after fifteen hours' illness.

Cases 87 *and* 88.—Mr. Varley, the husband of the last patient, and also Mrs. Charles Varley, his daughter-in-law, were both attacked at the same time as Mrs. Varley, or within two or three hours of each other. These two recovered. The last three patients were treated by Mr. Roberts. All the four patients lived in the same house. The house is situated in the bottom of the valley, having a canal immediately behind and the river immediately in front of it. The privies are not very near. The drains are bad. The water is of good quality. Charles Varley was an Odd Fellow, and had been at his lodge and got too much to drink the night before his attack. No communication with any other cholera patient could be traced.

No other cases of cholera occurred in this village, but diarrhœa prevailed extensively.

A solitary case of cholera occurred at Miln's Bridge, a small village about two miles west of Huddersfield, and in the valley leading to Slaithwaite.

Case 80.—John Saville, aged 57, a small farmer; on the morning of October 4th began to suffer from diarrhœa; in the following night the diarrhœa passed into cholera, and he died at 10 p.m. on the 5th of October. There were three persons living in the house; they were cleanly people, and their circumstances easy. The house is small, and stands close to the river side. The cow-house is near to it but is kept clean. The drains are not offensive. No communication with any other cholera patient could be traced.

During the time that I have been occupied in preparing the preceding account, and since it was written, I have become acquainted with the existence of a number of additional cases of cholera in Huddersfield and the immediate neighbourhood. This additional information does not invalidate the correctness of the particulars already given. Instead of adding a detailed account of the fresh cases, I propose to record, in a tabular form, a brief account of all the cases in the order in which they occurred, adding to the Table a few memoranda respecting such cases as call for further notice. I believe the Table will contain a complete account of all the cases which occurred in the practice of the surgeons resident in Huddersfield. It may not, perhaps, include all the cases which occurred in the adjacent villages, but I shall insert all with which my inquiries have made me acquainted.

The diagnosis in these additional cases is that of the surgeons whose names are attached to them.

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Number and Name of Patient.	Age.	Date of Attack.	Occupation.	Residence.	Died or Recovered.	Medical Attendant.
		1849.				
1. Francis Donoghue	50	Jan. 18	Tramp.	Attacked in Vagrant Office.	Died.	Mr. Clarke.
2. Mrs. Thomas	38	July 9	House-work.	Colne-bridge.	Recovered.	Mr. Booth.
3. Josh. Whitaker	27	Aug. 9	Mill-worker.	Bradley Mills.	Do.	Mr. Clarke.
4. William Leonard	38	Aug. 22	Gardener.	High-st., attacked in Quay-st.	Died.	Mr. Rhodes.
5. Mrs. Hardy	65 (†)	— 26		Lower-head-row.	Recovered.	Mr. Tatham.
6. Mrs. Gibson		— 29		Union-row.	Do.	Mr. Sissons.
7. Mrs. Kershaw		— 30	Factory-worker.	Fenton square.	Do.	Do.
8 James Atkinson	50	— 30		Stock's-buildings.	Died.	Mr. Tatham.
9. Grace Bake	29	Sept. 4		Cliff end.	Do.	Mr. Machill.
10. Mrs. Hirst	53	— 4		Lindley.	Do.	Do.
11. Jonathan Booth		— 5	Factory-worker.	Fa town.[3]	Recovered.	Mr. Sissons.
12. William Rhodes	45	— 6	Mason.	Clough (Paddock).	Do.	Mr Allatt.
13. Abraham North	35	— 7	Weaver.	Thomas-street.	Do.	Mr Greenwood.
14. Mrs. Ganter	25 (†)	— 8	Shopkeeper.	Cross Church street.	Do.	Mr. Tatham.
15. John Leonard		— 9	Factory-worker.	Quay-street.	Do.	Mr. Sissons.
16. Mrs. George Crosland	30	— 9		Lindley.	Died.	Mr. Machill.
17. Josh. Thornton		— 9	Blubber.	Lane.	Recovered.	Mr. Booth.
18. Martha Walker	60	— 11	Mangler.	Paddock.	Do.	Mr. Allatt.
19. Mary Craven	35	— 11	Nurse.	Lindley.	Died.	Mr. Machill.
20. —— —— F.	72	— 13		Cliff-end.	Do.	Dr. Robinson.
21. Grace Bake's Child	1½	— 15		Attacked at Mold-green.	Do.	Mr. Booth.
22. Henry Beaumont	27	— 16	Cloth Miller.	Union-street.	Do.	Do.
23. —— —— M.	70 or more.	— 16	(Husband of No. 20).	Cliff end.	Died.	Dr. Robinson.
24. John Stocks	30	— 17	Spinner.	Swallow-street.	Recovered.	Mr. Maxon.
25. Sarah Tomlinson	78	— 17		Clough (Paddock).	Died.	Mr. Allatt.
26. Josh Hinchliffe	61	— 17	Labourer.	Paddock.	Recovered.	Do.
27. Mrs. Hirst	53	— 18		Brierley Mill.	Died.	Do.
28. James Leonard	32	— 18		Swallow-street.	Recovered.	Mr. Sissons.
29. Hannah Taylor	55	— 19		Johnny Moore-hill.	Died.	Mr. Allatt.
30. William Moss	23	— 19	Excavator.	Do.	Do.	Do.
31. John Alpine	40	— 20	Excavator.	Do.	Do.	Do.
32. Sarah Taylor	24	— 21	(Wife of No. 61).	Do.	Do.	Do.
33. Mary Tomlinson	30	— 21		Clough.	Recovered.	Do.
34. Allen Micklethwaite	18	— 21	Cloth Dresser.	Johnny Moore-hill.	Died.	Do.
35. Hannah Micklethwaite	46	— 22	(Wife of No. 36).	Do.	Recovered.	Do.
36. John Micklethwaite	44	— 22	Weaver.	Do.	Died.	Do.
37. Thomas Wood	45	— 22	Engineer.	Dock-yard.	Recovered.	Mr. Booth.
38. Aaron Taylor	56	— 22	Cloth Dresser.	Johnny Moore-hill.	Do.	Mr. Allatt.
39. Ezra Whiteley	2	— 22		Do.	Died.	Do.
40. Charles Potter	29	— 22	Excavator.	Do.	Do.	Do.
41. Thomas Dyson	1	— 22		Clough.	Do.	Do.
42. Eli Wilson		— 23	Factory-worker.	Lane.	Do.	Mr. Sissons.
43. William Byrom	43	— 23	Labourer.	Johnny Moore-hill.	Recovered.	Mr. Allatt.
44. Mary Ann Byrom	7	— 23	(Child of Nos. 43 and 55).	Do.	Do.	Do.
45. Jane Dyson	4	— 23		Clough.	Died.	Do.
46. James Dransfield	14	— 24	Factory-boy.	Johnny Moore-hill.	Recovered.	Do.
47. Sally Byrom	2	— 24	(Child of No. 55.)	Do.	Died.	Do.
48. Patrick Connell	26	— 24	Excavator.	Castle-gate.	Recovered.	Mr. Clarke.
49. Rachael Dransfield	18	— 25		Johnny Moore-hill.	Do.	Mr. Allatt.
50. Mrs. Kaye		— 25	House-work.	Rashcliffe.	Do.	Mr. Sissons.
51. Martha Brown	19	— 25		Thomas-street.	Do.	Mr. Tatham.
52. Ann Taylor	23	— 25	(Daughter of No. 38).	Johnny Moore-hill.	Do.	Mr. Allatt.
53. Samuel H. Micklethwaite	21	— 25	(Son of Nos. 35 and 36).	Do.	Do.	Do.
54. J. Taylor		— 25	Physician.	South Parade.	Do.	Mr. Greenwood, Mr. Clarke, and Mr. Booth.
55. Ann Byrom	28	— 25	(Wife of No. 43).	Johnny Moore-hill.	Do.	Mr. Allatt.
56. Mrs. Wilson		— 26	(Wife of No. 42).	Lane.	Died.	Mr. Sissons.
57. William Eastwood	39	— 26		Hill-house.	Recovered.	Mr. Tatham.
58. John Robinson	29	— 26	Excavator.	Windsor-court, Castle-gate.	Do.	Mr. Clarke.
59. Mary Ann Ferguson	30	— 27		Old Post-office-yard.	Do.	Mr. Tatham.
60. James Jagger	5	— 27		Leeds-road, near Lane.	Died.	Mr. Booth.
61. David Taylor	28	— 27	Cloth Dresser.	Johnny Moore-hill.	Recovered.	Mr. Allattt.
62. Josh. Shepherd	42	— 28		Lane.	Do.	Mr. Tatham.
63. Richard Berry	62	— 29	Man Nurse.	Rashcliffe.	Died.	Do.
64. Mary Goodyear	39	— 29		Cropper's-row.	Do.	Mr. Clough.
65. John Goodyear	45	— 30	Finisher (husb. of No. 64).	Do.	Recovered.	Mr. Clarke.
66. Mary Walshaw		— 30	House-work.	Union-row.	Do.	Mr. Sissons.
67. John William Taylor	3	— 30		Meltham.	Died.	Mr. Rawcliffe.
68. John Goodyear	5	Oct. 1	(Son of Nos. 64 and 65).	Cropper's-row.	Recovered.	Mr. Clarke.
69. Robert Whitehead		— 1	Commercial Traveller.	Dyke-end-lane.	Do.	Mr. Sissons.
70. Harriett Marriott		— 1	House-duties	Old-street.	Do.	Do.
71. Abraham Smith	39	— 1	Cloth Dresser.	Cropper's-row.	Died.	Mr. Booth.
72. Mary Quarmby	74	— 1	Barber.	Slaithwaite.	Do.	Mr. Dean.
73. Hannah Pick	17	— 2		Castle-gate.	Recovered.	Mr. Tatham.
74. Margaret Heaton	37	— 2		Do.	Do.	Do.
75. Maria Moxon	32	— 2		Rosemary-lane.	Do.	Do.
76. —— —— M.		— 2	(Son of No. 23).	Cliff-end.	Died.	Dr. Robinson.
77. Ruth Berry		— 3		Folley-hall.	Recovered.	Mr. Sissons.
78. Emma Wilcock		— 3	Nursemaid.	Green-side.	Do.	Do.
79. James Charlesworth	61	— 3		Sheep-close.	Do.	Mr. Tatham.
80. John Saville	57	— 3	Farmer.	Milnsbridge.	Died.	Dr. Robinson.
81. Josh Gledhill	50	— 4	(Son of No. 72).	Slaithwaite.	Do.	Mr. Roberts.
82. —— ——	18 months.	— 4		Do.	Do.	Do.
83. Charles Varley	36	— 7	Clothier.	Do.	Do.	Mr. Dean.
84. Susan Shaw	41	— 8		Lime kilns.	Recovered.	Mr. Tatham.
85. Hannah Clarkson	42	— 10		Ash-brow.	Do.	Do.
86. Mrs. Varley	57	— 10	(Mother of No. 83).	Slaithwaite.	Died.	Mr. Roberts.
87. Mr. Varley	60	— 10	(Husband of No. 86).	Do.	Recovered.	Do.
88. Mrs. C. Varley		— 10	(Wife of No. 83).	Do.	Do.	Do.
89. Mrs. Shaw		— 21		Dead-waters.	Do.	Mr. Sissons.
90. Jasper Dawson	36	— 22	Cloth Dresser.	Rashcliffe.	Do.	Mr. Booth.
91. Richard Thorpe		— 28		Dead-waters.	Do.	Mr. Sissons.
92. David Sykes	50	Nov. 1		Huddersfield-prison.	Do.	Mr. Clarke.
93. George William Taylor	2	— 21		Crosland-moor.	Died.	Mr. Allatt.

Notes on some of the cases in the preceding Table :—

No. 3.—This patient was at Liverpool, in a district infected with cholera. He was taken ill very soon after getting home. The disease did not spread in his own neighbourhood.

No. 13.—This man had been at a crowded public meeting

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in the Philosophical Hall the night before he was attacked. There was no known exposure to contagion. There was suppression of urine in the attack during a period of eighteen hours.

No. 21.—This was the child of No. 9. After the mother's death, the father went to live at Mold-green, near Huddersfield. The child probably carried the seeds of the disease with it, and was attacked ten or eleven days after. This may therefore be regarded as the period of incubation. The disease did not spread at Mold-green.

No. 48.—This man came from Bradford, where cholera was very rife at the time. He was attacked very soon after reaching Huddersfield. The disease did not spread from the house in which he was ill, although it is in one of the worst quarters of the town.

No. 58.—This man was living at Johnny Moore-hill. He left that place to avoid the disease, and was attacked soon after at his new residence.

Nos. 89 and 91.—These patients both lived in the same house. There was no discoverable source of contagion in the first case. The locality, as the name indicates, is swampy.

No. 92.—This man lived at Slaithwaite. There had been no cholera there for three weeks before he left the place. He was attacked in the first night of his imprisonment.

No. 93.—No contagion could be discovered in this case, but there is a great quantity of filthy refuse near the house.

[To be continued.]

PRACTICAL OBSERVATIONS
ON
DISEASE OF THE EAR;
WITH RECORDS OF CASES TREATED AT ST. MARK'S HOSPITAL, DUBLIN.

By W. R. WILDE, F.R.C.S., &c.

In an art but just emerging from the mists of quackery, which have, until recently, enveloped the pathology and treatment of Diseases of the Ear, it is of great importance to accumulate facts, and openly, fairly, and fearlessly to state the truth, even at the expense of what is termed popular reputation. Observing in the periodicals, from time to time, records of "cures" of deafness and aural affections, which evidently prove their authors to be unacquainted with the ordinary pathological appearances of such diseases, and, moreover, seeing daily "Causes of Deafness" put forward in books and papers which, according to my experience, rarely, if ever, exist; and, furthermore, hearing, and having continually brought under my notice, (although, curious to relate, generally by persons who are themselves incurably deaf,) accounts of success in the treatment of deafness in other parts of the United Kingdom, which I cannot and do not credit, I determined to make an accurate note of every case of disease of the ear among the patients who applied at the hospital for several months in succession. I believe it to be of the greatest importance, in the present state of our knowledge of this subject, to accumulate facts, and to make the Profession generally acquainted with the appearances which any deviation from the normal or healthy state presents in the ear; and I have also thought it useful to familiarise the pupils attending this Institution with those methods of examination which will best enable them to form an accurate diagnosis and prognosis.

Mr. Toynbee has laboured extensively, and with effect, to discover and describe the *post-mortem* appearances which disease has produced in the organ of hearing, bringing to his aid every modern appliance which the improved state of science at present affords. I trust he will long continue to prosecute, with the same avidity, the same honesty of purpose, and an equal amount of critical acumen, his valuable researches. Morbid anatomy, however, is one thing—pathology another. The dead subject upon the dissecting table teaches the student anatomy, not disease, or, at best, but the results of disease. It avails little that the hospital pupil should have pointed out to him, in the dead-room, the violence which sudden accidents may have caused, or the ravages which slow disease has produced in the various organs or textures of the body. It matters not to what extent the microscope may exhibit the wide-spread lesion, or chemical tests disclose the effects of morbid products, unless the cases have been observed during life, and the progress of disease previously noted at the bedside. Therefore it is that the School of Vienna, where a dozen bodies from different parts of the Great Hospital, but the histories of which are unknown, are sometimes cut up, and their *post-mortem* appearances displayed in the lecture-room in a morning, may, under the able teaching of Rokitanski, Engel, and others, teach morbid anatomy, (pathology so called,) but does not produce many practical physicians.

Mr. Toynbee's researches, however, but tend to prove the position which I long ago advanced, and which from year to year I have been in the habit, not only of teaching theoretically, but practically demonstrating in my Clinical Lectures—that the great majority of diseases of the ear producing deafness have their origin in inflammations of one kind or another. Every day's experience confirms me in this opinion; and the cases which I am now about to publish will, I think, corroborate those views of the subject.

The following registry of seven hundred and eighty-three cases of diseases of the ear, recorded at St. Mark's Hospital, from 1st March, 1847, to 1st March, 1850, shows what an important influence inflammation exerts at least upon the middle and external ear:—

Diseases.	Under 5.		5 to 10.		11 to 15.		16 to 20.		21 to 30.		31 to 40.		41 to 50.		50 and upwards.		Total.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	Males.	Fem.	General Total.
Otitis	—	—	2	—	1	1	—	3	2	1	2	—	2	—	—	2	9	7	16
Acute Myringitis	—	2	6	5	6	2	6	4	7	8	—	3	3	2	2	3	30	29	59
Chronic Myringitis	2	3	8	4	6	3	11	13	18	17	33	12	16	7	13	7	107	66	173
Subacute Myringitis	1	—	4	1	1	2	1	1	1	2	—	—	—	—	—	—	8	6	14
Syphilitic do.	—	—	—	—	—	—	—	—	2	—	1	—	—	—	—	—	3	—	3
Thickening of Membrana Tympani	—	—	4	2	—	1	1	5	11	11	9	3	4	5	1	3	30	30	60
Va cular Membrana Tympani	—	—	—	—	—	—	—	—	—	1	1	—	—	—	—	—	1	1	2
Collapsed Membrana Tympani	—	—	1	—	—	1	—	—	—	—	—	—	—	1	—	—	1	2	3
Otorrhœa, Chronic	14	13	19	9	6	13	8	11	5	6	10	2	3	—	5	7	70	61	131
Do. Acute	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	1
Do. with Polypus	1	—	—	—	5	2	1	1	4	1	2	3	—	1	—	—	13	8	21
Do. with Perforation	—	—	—	—	—	2	—	1	6	2	1	2	2	1	1	1	10	9	19
Do. with Caries	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	—	1	1	2
Inflammation of External Meatus	—	—	—	—	—	—	—	—	—	1	—	—	1	1	—	—	1	2	3
Contraction and Ulceration of do.	—	—	—	—	—	—	—	—	—	1	—	—	—	1	—	—	—	2	2
Abscess in do.	—	1	—	—	—	—	—	—	2	1	2	1	1	—	—	—	5	3	8
Tumour in do.	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	1	1
Exostosis of do	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	—	1
Eczema Aurium	4	3	2	2	—	1	—	2	—	1	—	6	—	—	2	—	8	15	23
Congenital Malformation	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	1	1	2
Abscess of Mastoid Gland	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1	—	1
Foreign body in Meatus	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	1	—	1
Tumour of Auricle	—	—	—	—	—	—	—	1	1	—	—	—	—	—	—	—	1	1	2
Nervous Deafness	—	—	—	—	—	—	—	—	3	4	3	—	1	1	1	1	8	6	14
Tinnitus Aurium	—	—	—	—	—	—	1	—	2	2	—	—	—	—	—	—	3	2	5
Otalgia	—	—	1	—	—	—	—	—	2	3	1	—	—	—	1	—	5	3	8
Cerumen	7	2	17	11	8	5	4	3	20	13	22	19	28	10	29	9	135	71	206
Deaf and Dumb	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	2
Total	31	25	64	34	34	35	34	45	88	75	87	61	61	31	55	33	454	329	783

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From this we learn, that, with the exception of the deaf and dumb, and the cases of deafness resulting from cerumen, (the latter being not quite one-fourth of the whole,) the affections produced by inflammatory action, more or less remote, are in the proportion of about 938 in the thousand. It is unnecessary here to occupy space in entering into the minutiæ of this Table, in discussing the results, or enlarging upon the deductions which might be drawn from it. Like all such Tables, it must be more or less defective; but, so long as statistical calculations are admitted in medicine, it is entitled to its value. The cases which I am now about to record are, with very few exceptions, not included in the foregoing Table.

The speculum which I employ, and with which I am always able to show the pupils the various diseases of the tympanal membrane which may present, or of the cavity of the middle ear when open, is the simple conical tube which I described several years ago in my Essay on Otorrhœa, and which I was, I believe, the first to introduce into this country. It is the original of all the others of its class; and it is satisfactory to me to find that it is now extensively used by medical men. Modifications of this instrument have been devised by others, and possibly in their hands they may be found more useful than that which I employ. I believe, however, it is a well-managed light, (natural not artificial light,) a practised eye, and delicate manipulation, that, more than any peculiar form of instrument, assists the practitioner effectually to explore the external auditory passage or the middle ear, and which enables him to make an accurate diagnosis.

It is no small gratification to me, to find that my labours to make the Profession in this country acquainted with the best method of examining the ear have been attended with some success. An ear speculum has now become a necessary appendage to the assortment of instruments which a surgeon usually carries about with him. A few years ago such a thing was unknown—in this kingdom at least. People are also beginning to find out that something may be done for deafness, and that therefore it is worth while attending to diseases of the ear in the beginning. I do not expect that the prejudices of centuries will be got rid of in a day, nor the neglect of years recovered in an hour; but I have, within the last three or four years, observed a manifest improvement in the mode of treating diseases of the ear among all classes of the Profession.

Each case, as it presented, has been accurately investigated in the presence of a class of advanced students and young medical men; the most prominent symptoms have been noticed; the pathological condition of the parts demonstrated, and a few remarks made upon the cause of the disease, its prognosis and treatment. Occasionally the students under my direction have conducted the examination. A short-hand writer is always in attendance when the ear cases are examined, and records with accuracy what passes. These notes, when reduced to writing, I myself correct, and frequently compare with the appearances presented upon the next day of the patient's attendance. By this means a vast amount of time and labour is saved, and the diseases being thus noted by myself, without the usual intervention of a "case-taker," I believe them to be more accurate than those usually related in medical writings. Their errors are my own. In most of these clinical cases a running comment is, as might be expected, mixed up with the description; a more colloquial but perhaps not less useful form of instruction than that commonly met with in books and periodicals.

As far as progress and the effects of treatment are concerned, many of these cases are very defective, because, in a large public Institution, as every one knows who is extensively engaged in treating the poor, it is not possible to follow out their history. Several of the persons applying for relief having little hope held out of ultimate restoration to perfect hearing, do not return a second time; others have been kept away by their respective avocations; and many of them, having changed their residence, have found it inconvenient to attend. Unsatisfactory as these drawbacks are, and must always be under the like circumstances, I think the publication of these cases will be so far useful, by enabling the Profession to judge from what causes deafness most usually arises, and what morbid appearances most commonly present. I have not reduced them to any definite arrangement, choosing rather to take them in their chronological order as they appeared from day to day, feeling assured that the variety so presented will thus be less wearisome to the reader. Mixed up with these cases there were very many instances of deafness and tinnitus aurium, arising from simple impaction of the external auditory passage with hardened cerumen. These, which were easily relieved by the removal of the offending body, I have not thought it necessary to insert, except where one or two patients were exhibited at the clinique as examples of that form of disease.

In studying the diseases of the ear, my object has been to take as a basis the established principles of pathology, and to reduce their treatment, local as well as general, to the recognised rules of modern therapeutics and scientific surgery; but, above all, I have laboured to divest this branch of medicine of that shroud of quackery, medical as well as popular, with which, until lately, it has been encompassed.

Country friends often ask me, "Have you found out any new cure for deafness?" I do not profess to invent or introduce new remedies. I try to make old established rules of practice in the treatment of other organs applicable to the management of these diseases.

Like most students, I was taught during my apprenticeship, theoretically to believe, and practically to observe, that we (the Medical Profession) knew nothing about the diseases of the organs of hearing. This was the dictum honestly expressed by the "heads of the Profession,"—men from whom the public were willing to receive a fearless, candid opinion, either immediately on being consulted, or after a few trials of the "ordinary means;" to wit, syringing with hot water and soap, either castile, soft, yellow, or old brown Windsor, *in the hope* that the deafness or the noise in the ears might arise from a collection of hardened wax;—then setting the digestive organs to rights by purgation, and a "course of bitters," least the affection *might be* "owing to the stomach." The human stomach has much to answer for in deranging the system generally no doubt; but the mischief of which it is daily accused is beyond belief. Every one extensively engaged in practice is well aware of this. There is scarcely a diseased organ which we treat, no matter how local the cause, of which, if we question the patient as to the duration of his affection, he will not say, "Oh, it is indeed of pretty long standing, but I was waiting to have my stomach put to rights, as I am very bilious." Next in order, blistering behind the ears was tried, in order to draw away some peccant humour that had, *perhaps*, accumulated round the delicate organ of hearing. These and such like methods failing to give relief, stimulants often of a very acrid nature were poured into the external auditory passages—either to restore the secretion, under the impression, that what was a mere attending symptom was the disease, or to excite or rouse the dormant nervous power; and hot tinctures, turpentine, creosote, and pungent essential oils were dropped over the external surface of the tympanal membrane. Some practitioners resorted to more palliative means, recommending a little warm almond oil to be dropped into the ear at bedtime, or eau de cologne to be rubbed upon the side of the cheek adjoining the auricle, at the same time advising "a little black wool" to be retained in the meatus, in order to preserve the organ from cold. To give, however, fair play to the latter remedy, it should have been prescribed in full, and according to the old popular superstition, but one which is still extensively resorted to, the wool should be procured from the left forefoot of a six years' old black ram! Some advised a slice of fat bacon to be inserted into the meatus every second night. All these means having failed to give relief, the patient was frequently recommended—an easy mode of getting rid of him—to give galvanism and electricity a fair trial; and, if they did not succeed, change of air and scene, seabathing, or a "course of waters" at some of the fashionable places of resort for that purpose were prescribed. Despairing of relief from the legalised practitioner, and getting disheartening opinions from men of eminence and repute, we need not wonder that suffering patients threw themselves into the hands of quacks and nostrum mongers.

Moreover, the difficulties which beset the student in acquiring a knowledge of the anatomy of the ear, owing to the exceeding minuteness of the organ itself, the great difficulty of dissecting it, from its depth, the complexity of its structure, and the small hard bone in which it is placed, as well as the number of crabbed names attached to its different parts, all of which have made it a sort of anatomical crux, which no one wishes to remember longer than the day after he has passed his examination, have conduced not a little to

strengthen the belief in the doctrine promulgated by his practical instructors, that little or nothing could be done to reach the diseases of so delicate and intricate an organ.

In noting these cases, in some instances the objective, and in others the subjective symptoms, have been first recorded; but the accounts which even educated people give of the history of their deafness are frequently most incongruous, and often puzzling; and the apathy and indifference with which persons in all ranks of life have allowed the insidious approaches of aural disease to creep upon them are really marvellous. Mr. Saunders, with whose valuable essay upon the ear I wish the Profession were better acquainted than they are, remarked upon this subject in his own peculiar lucid manner of expressing himself nearly half a century ago:—"A clear and distinct recital of symptoms is rarely obtained from the deaf. They are conscious of their infirmity, but very few are impressed with a notion that hearing may be impaired by a variety of causes. The approach of deafness is insidious, and often accompanied with pain. Few strong impressions are made on the mind of the patient, and he loses his faculty of hearing so imperceptibly, that in general his friends sooner discover his misfortune than himself."

With respect to the mode of conducting the inquiry in the following cases, I may remark, that where a patient presented with a totally incurable disease, a second note has rarely been recorded; indeed, the patient has rather been discouraged attending the Institution. It is less likely to bring discredit upon the art when people are honestly told that owing to their own neglect, or to their improper treatment, the time has passed by for affording them relief, than to allow them to continue for weeks or months in attendance, and often at a great expense of time. This observation holds good in private practice even more than in the management of institutions or in treating the poor.

In preparing these cases for publication an endeavour has been made to strip them of every extraneous circumstance and all irrelevant matters. In many instances the treatment has not been recorded; in several none was attempted. Some of these cases have been detailed at length, and formed subjects for lecture; others were only deemed worthy of a passing note, particularly such as presented symptoms similar to those that had already been described at length.

I. INFLAMMATION OF TYMPANUM.

January 24, 1850.—G. S., male, aged 20, with dark complexion, black hair, and brown eyes;—a cook on board one of the Channel steamers, and, though not obliged to work the vessel, very much exposed to the effects of the weather. Has been partially deaf for fourteen years. Was treated at this Institution two years and a half ago, when, he says, his hearing was restored.

Right ear;—hearing distance, with an ordinary ticking watch, is eight inches. Does not suffer from pain or noise on either side; the auricle normal; the meatus natural in form but totally devoid of wax; its surface smooth, white, and polished. It is said, that one of the symptoms of nervous deafness is the suppression of the natural secretion of the external auditory passage, and aurists have invented a variety of applications, oils and ointments, but in most of which ox-gall is the principal ingredient, for the purpose of restoring or supplying the wax, in order to improve the hearing. This suppression, however, is generally but a consequence of the inflamed condition in which the external auditory passage has been for a number of weeks, months, or years.

Upon bringing the tympanal membrane into view, by means of the tubular speculum, through which a stream of clear sunlight is transmitted, it is observed to be of a mottled red and white character. A large greyish white spot occupies its upper and posterior margin; the membrane has lost its polish, is rough and irregular on its surface, and has become thickened throughout, like a cornea affected with dense leucoma, and the position of the manubrium of the malleus cannot be distinguished from the rest of the drum-head. By holding his nose, keeping his mouth shut, and making a forced expiration, the patient is unable to inflate the cavity of the tympanum, or press the membrane outwards, or even increase and give greater depth to the colour of its vascularity; showing that the air does not pass up freely through the Eustachian tube. Upon applying the naked ear, or the stethoscope to this man's right ear, and then making him perform the experiment which has been just described, we do not hear any of the usual sounds observed when the air gains access to the middle ear. He had for a long time a muco-purulent discharge from this ear, but of this he was relieved on his former application.

In this case we have a very well-marked example of inflammatory action going forward in the tympanal membrane, and, to some extent, in the membrane lining the external meatus also, the symptoms of which are observable by the eye; and we may fairly infer that it is not confined to these parts, but extends along the mucous lining of the middle ear down through the Eustachian tube, in the same way as we may fairly pronounce upon the extent of inflammation throughout the internal structure of the eye in cases of choroido iritis, or general ophthalmitis.

Left Ear.—Hearing distance, six inches. Auricle and meatus same as on right side. The characteristics of the membrana tympani are also somewhat the same, but on this side there is a greater amount of polish; there is a half ring, or crescent of opacity, situated at the upper edge of the membrane. He can inflate the tympanum on this side, raise the membrane up or outwards, and render it more vascular—a proof that the Eustachian tube is free. He had formerly a discharge from this ear also, but that ceased at the time of his former attendance. The membrane of the throat is natural. The tonsils are not enlarged. The end of the uvula was removed some years ago.

Treatment.—Counter-irritation behind the ears by blisters applied as frequently as possible for a month. The oxymuriate of mercury in bark to be taken three times a-day.

February 13.—Has very much improved since last examination. Hears at 15 inches on right, and 10 on left side. Two days ago he heard a report in his *right ear*, immediately after which his hearing improved, owing to the air having found its way through the Eustachian tube, the previously thickened and inflamed membrane of which is probably about to resume its natural character; but the hearing has varied several times since, as the passage becomes either blocked up by mucus, or its calibre decreased by the pulpy infiltrated membrane. Upon bringing the tympanal membrane into view to-day, we observe that it is still of a mottled pink and white colour. He cannot inflate it, and I am under the impression that it would be injurious to him to pass a catheter into the Eustachian tube, as some recommend, and through it force a quantity of cold air, or any fluid, even the most bland, into the cavity of the drum. It certainly would cause much irritation, and possibly increase the state of chronic inflammation we are labouring to subdue. If the urethra is in a state of inflammation or high irritation, or a man has an inflamed bladder, no practical surgeon pushes a catheter or a bougie into it. As the inflammation subsides, the passage will open without any mechanical means; the air, warmed and moistened by its passage through the lungs, or over the surface of the heated mucous membrane of the nose and mouth, will again, as it did a few days ago, (perhaps in a fit of sneezing or coughing, as we have all experienced when labouring under a catarrh,) gain access to the middle ear; the equilibrium of the tympanal membrane will again be restored, and hearing improved.

Left Side.—Tympanal membrane still slightly pinkish, but its polish much improved, and there is a scaliness apparent on the surface of the meatus, which is always a promising indication. On desiring the patient to blow into his ears, as already described, a prolonged squealing noise is heard upon this side, showing that there is a perforation in the membrane, which, as soon as it takes place, always improves the hearing in cases like this. The opening can now be seen, not larger than a pin's head, with a valvular edge, which flaps up and down as the air is forced through. It has occurred since the last examination, about four days ago, and is situated where such ruptures usually take place—that is, in the lower and somewhat anterior portion of the tympanal membrane, nearly opposite the opening of the Eustachian tube. A little thin mucus is pressed out along with the air through the opening. The aperture was touched with a fine camel's hair pencil, moistened with a ten-grained solution of the nitrate of silver. Two leeches were applied to the meatus, at its external aperture, and the counter-irritation behind and below the insertion of the auricle continued, tartar emetic ointment being substituted for blisters. The quantity of bichloride and bark to be increased, the patient being directed not to take his first dose before breakfast, lest it might produce

griping or purging. His general health has much improved.

March 2.—This man states that he has recovered his hearing—that it is even better than it was prior to this last attack. Upon examination, the tympanal membranes are both of a greyish white colour, with scarcely any vascularity remaining. The aperture upon the left side, which has been touched with a caustic solution twice a week since last report, has completely healed up.

No. 2.—CHRONIC THICKENING OF LEFT AND TOTAL LOSS OF RIGHT TYMPANAL MEMBRANE.

Jan. 24, 1850.—E. S——, female, aged 25, has suffered from disease of the ears since she had Scarlatina, three or four years ago; has had "a running" from one ear, but never experienced any pain on either side. Has never had medical advice. A constant buzzing noise is present in the left ear; none whatever in the right. Hearing distance on the *right side*, five inches; on left only on pressing the watch to the external ear. Hears the watch well on placing it between the front teeth. Upon examination, we find that she has suffered from chronic inflammation, attended with muco-purulent discharge in the right ear, for a long time. On bringing the bottom of the meatus auditorius into view, we perceive a smooth, deep-red, moist, and irregularly concave surface: this is the inner wall of the tympanum, the mucous membrane covering which, when long exposed to the atmosphere, assumes this peculiar florid, and often villous appearance. The eye informs us that we are not looking at the membrana tympani; the peculiar curve of the surface that meets the view, the hue of colour, and the great depth at which it is placed, would, even if one were not well acquainted with the appearance I have described, at once lead us to say that the membrane had been removed, and, on passing down a fine round-headed probe, it knocks against the bony protuberance of the promontory upon this portion of the temporal bone. The spot where the probe touched has become of a much deeper red, and the patient says she experienced a sensation as if something was knocking loudly against the side of her head. Towards the upper and posterior side there is a white projection, from which a shadow is thrown upon the red surface of the tympanal cavity. This projection is the displaced malleus, which, in many cases like the present, occupies a similar position. The shadow thrown from it proves that it is not in contact with the deep surface we are looking at: in the same way as the shadow cast by the pupillary margin of the iris will at once tell us the position of the opacity, and many other circumstances of great importance, in a practical point of view, in cases of cataract. Towards the lower and anterior edge of the cavity may be observed a spot darker than the rest; this is the aural opening of the Eustachian tube; but the patient is unable to pass air through it. When this tympanal membrane was destroyed we know not; probably an aperture occurred in it during the scarlet fever, under which she laboured at the time her deafness came on, and, by ulceration, it has since extended. I am inclined to think this has been the process, for she says the discharge under which she formerly laboured, and which was so great as to pour out of the external meatus and soil her dress, has of late considerably lessened, and is now very slight, and about the consistence of made starch. This accords with my experience of those discharges. In cases of polypus, without any aperture in the tympanal membrane, the discharge is always very profuse, and usually purulent; where there is an aperture in the membrane, it is, generally speaking, not so abundant, but more mucous; and where the membrane has been almost entirely removed, as in this case, the discharge frequently lessens. Sometimes there is scarcely sufficient secretion, and patients are in the habit of moistening the ear with a drop of water applied with the end of the finger. I know a gentleman who does so every day after dinner when he wishes to hear well, and he has an aperture in his membrana tympani. As already stated, this patient has no noise upon this (the right) side. Where the membrane has a large aperture in it, or has been completely removed, I have almost invariably observed, that there is no tinnitus auriam, or, if such existed upon the first accession of deafness, it ceases as soon as the membrane has become so much destroyed as in this case. Therefore it is that some persons have derived relief from this most distressing symptom by having the membrane perforated, although the removal of the deafness could not be expected. This woman hears at five inches distance with the watch upon the right side; but you may remark that she hears the voice better than other persons who possess a hearing distance by the watch of an inch or two more. This is worthy of remark, and applies to a vast number of deaf cases. Some persons are better able to understand the purport of conversation from a natural quickness of comprehension, and will maintain a discourse although they cannot hear the watch at two inches distance, while others who hear the watch at three times that distance exhibit a dulness of general hearing that is quite remarkable. I have observed, that when once the tympanal membrane has become permanently open, the larger the aperture the greater the amount of hearing, provided no further mischief has taken place, and that there is a slight ring or circle of the membrane still remaining.

"A complete cure for deafness, arising from an aperture of the tympanal membrane," by passing a portion of wool or raw cotton moistened with some fluid into the bottom of the ear, has recently been published. A good deal has been made of this. I became aware of the fact about five years ago, through a lady resident in Clonmel, and who discovered it, she told me, by accident. Considering it an isolated case, and having my attention directed particularly to other subjects at the moment, I thought no more about the matter then. To Mr. Yearsley we are, however, indebted for making this discovery known to the Profession. Subsequently a substance called Glycerine was recommended as the only proper fluid with which to moisten the wool or cotton, and from being employed with effect in one set of cases, its virtues were vaunted as a cure for all, and you hear it now extolled in the public prints as well as medical periodicals, as a panacea for deafness in all shapes, and arising from all causes. Gentlemen, I believe these nostrums are set forth and their marvels detailed for a particular purpose; and I suppose glycerine has served its purpose, for I can perceive that it is already beginning to wane; but of this hereafter. Now, with respect to Mr. Yearsley's recommendation, it is a highly valuable one, no doubt, but it is in its application and usefulness variable. In some cases, what it will effect is quite marvellous—almost instantaneous restoration to comfortable hearing; but in other instances,—and of this the patient under examination is an example,—it does not succeed. The cases in which it is most effectual are those where there is a very large aperture in, but not a total destruction of, the membrana tympani. It requires some tact to hit off the exact position in which to place the bit of cotton, but the moment it is done, either by the practitioner or the patient, the hearing is restored. It should be made to fit into the aperture in the membrane, not completely to block up the meatus, nor to press against the inner wall of the tympanum. It ought to be passed down with a probe, and patients should be taught how to introduce it themselves. The lady whom I first saw employ it always carried a bodkin, a little fine wool, and a bottle of oil for the purpose. I do not think it matters much what the fluid is; I generally use a little fine oil, and, after the bit of cotton is saturated in it, press it gently between the fingers. As there is always some discharge from the exposed mucous membrane in these cases, a sufficient moisture is kept up for two or three days; but the wool or cotton should be removed from time to time, according to the patient's own sensations, and never allowed to remain in longer than three or four days. If there be much discharge present, the wool or cotton may require removal daily. It is astonishing with what adroitness a patient will sometimes hit off the necessary position of the cotton, even after the practitioner has failed to adjust it.(a)

I have made these observations, although not strictly applicable to this case, because the subject is one that has lately en-

(a) The lady alluded to informs me, in answer to a recent communication, that the disease in her ears originated in what she styles brain fever, sixteen years ago, but that the physicians whom she consulted told her that her aural affection was merely nervousness, and that the drums of her ears were quite unaffected. "Suffering," she says, "so dreadfully from deafness, and a suffocating feel about my head, I resorted to many experiments. At last I was recommended to try a piece of fat bacon, toasted over a candle, and then put into the ears. I used it for a long time, but eventually I was obliged to discontinue it, as it hurt me very much. I then dropped oil into my ears instead, and it for a while enabled me to hear, but in an hour or two afterwards I used to be as deaf as ever; so I naturally thought that, by putting a little wool with the oil into my ear, and thus keeping up the moisture, it would answer the purpose. This I tried, and found it most efficacious. I must, however, have it settled in one particular spot in my ear, or it would be quite useless, and were I to take it out I would not hear a word. I generally arrange it with a large pin or bodkin, and, when fixed properly, I have no occasion to change it for three days together."—A. McS.

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gaged, and very justly, much attention, and because I have tested by several cases lately the opinion which I have just expressed. One case was so remarkable, that I cannot forbear mentioning it. A gentleman, about fifty years of age, caught a violent cold by being much exposed during the night air among some of the snowy mountains and glaciers of Switzerland a year and a half ago. He was attacked with dull aching pains in his ears, attended with considerable deafness. He says—and, being a person of great intelligence and some scientific acquirements, I am constrained to believe his statement—that, upon applying for advice in one of the large towns in Switzerland, a mixture containing muriatic acid was prescribed for him in order to alleviate the pain and stimulate the drum of his ears. Shortly after the first application, which unfortunately was made upon both sides, he had a violent attack of earache, which, he states, "nearly set him mad," but that he got relief as soon as a discharge was established, and that something burst in his ears. Having heard of the glycerine-and-cotton remedy some months ago, he applied it, and succeeded once, but never after, in gaining relief. Upon inquiry I found that he had completely filled the meatus with a plug of wool and glycerine. On examination, I found that the tympanal membrane had been completely removed upon one side, and but a slight remnant of it remained upon the other. He had a good deal of discharge—no noise; but he was so deaf that one required to shout to him; and he came to me to recommend him some sort of hearing-trumpet. The mucous membrane of the tympanal cavity and the meatus were in a state of chronic inflammation, which being lessened by the application of a solution of nitrate of silver and other means employed for a few days, I introduced bits of moistened cotton in the manner I have described. His hearing was instantaneously restored; and, having taught him after a few visits how to manage the application himself, he is again able to join society almost as well as ever.

[To be continued.]

PRACTICAL CASES.

BY GEORGE SAUNDERS, Esq.,
Assistant-Surgeon 47th Regiment.

CASE I.—AMPUTATION OF BOTH THIGHS ON ACCOUNT OF GANGRENE OF THE FEET AND LEGS AFTER TYPHUS FEVER, WITH A FAVOURABLE TERMINATION.

Private Anthony Hannaway, 47th Foot, service eighteen years, of which six (3-12ths) were in the Mediterranean, and two (9-12ths) in the West Indies; an Irishman; labourer; aged 37 years; robust make, sallow complexion, rather intemperate habits. When on detachment at Raththeale, in February, 1849, was sent to the Fever Hospital to attend upon his comrade in typhus fever; the comrade recovered, and Hannaway became ill. His symptoms speedily assumed an aggravated form, and went on to the development of maculated typhus. The detachment was relieved late in the month of March, and on the 6th of April following, Hannaway was removed on an open car to the head-quarters of the regiment at Buttevant, a distance of nearly forty miles. On his arrival, at 10 p.m., he was in a state of extreme collapse, cold, and almost pulseless, and his lower extremities, from the knees down, icy cold, and of a dark livid hue; a large sloughing bed-sore over the sacrum, and the poor man's state was extremely pitiable. By stimulants, nourishing diet, and watchful care, his general condition rapidly improved; a circular pad, hollow in the centre, was placed under the sacrum, and the ulcer in that situation ultimately healed; but the feet and legs were past amendment; gangrene of them was already established; the line of demarcation was visible around each leg, just below the tuberosity of each tibia, showing the commencement of disjunctive ulceration, or nature's amputating process, shortly after the discharge from which was immense in quantity, dark, grumous, and offensive. Amputation was no longer to be delayed—the only measure deemed likely to give the patient a chance of recovery—and accordingly, on the 4th of May, Mr. Battersby, the surgeon of the regiment, made an anterior and posterior flap at the lower third of the left thigh, there not being sufficient sound skin below the knee to cover the stump. The bone was next sawn through, six vessels tied, and the flaps brought together by means of sutures and adhesive plaster. The patient sustained the shock of the operation with remarkable fortitude. The small quantity of blood that was lost was of a dark colour, and a few of the vessels contained soft coagula. On the 19th of the same month, amputation of the right thigh was performed in the same manner and situation as the left. Only four ligatures were applied. The man had a most favourable recovery, and is now enjoying good health at Clonmel, and in the receipt of a pension.

CASE II.—DIFFUSED FEMORAL ANEURISM—LIGATURE OF THE EXTERNAL ILIAC ARTERY—RECOVERY.

Private Martin Hogan, 47th Foot; service two years; an Irishman; baker; aged 19 years; moderately stout, and of firm fibre; face pale, and deeply marked from small-pox. In the spring of 1849, lost a very considerable portion of the penis from phagedænic ulceration, since which period he has generally observed some enlargement of the glands in the left groin. On August 8th, in the same year, was admitted into the Regimental Hospital, for a painful swelling in the left groin, which rather suddenly appeared five days previously, when at light infantry drill. The swelling was diffused and extended beneath Poupart's ligament; rather hard, immovable, having a central pointing of a dark blue appearance, and much surrounding inflammation of the integuments, but no pulsation; leeches and cold lotions were applied to the part; purgatives, antimonials, confinement to bed, and spoon diet ordered. By these means the inflammatory state of the parts was much reduced. The next day the swelling was more pointed, with indistinct fluctuation. In a few days the integuments became thin and darker in colour; a small slough separated, and there was considerable oozing of arterial blood; pulsation in the tumour was now very audible through the stethoscope. The bleeding was arrested by pressure.

On the 21st the swelling became more diffused; base hard; much hæmorrhage; great pain on pressure above Poupart's ligament; no pulsation in the artery immediately below the swelling, or in the corresponding popliteal space, with a diminution of the natural temperature of the limb.

On the following morning Mr. Battersby tied the external iliac artery of the left side about three-fourths of an inch above Poupart's ligament. The integuments were in the first place divided, to nearly four inches in extent, along the upper margin of Poupart's ligament, various layers having been cut through, and much cellular tissue displaced, and some fat removed, directly beneath which the artery was exposed. The ligature was passed from the inner side of the artery without the least difficulty, and the vessel properly secured. Immediately this was done pulsation in the tumour ceased; the concentric coagula forming the aneurismal sac subsequently sloughed away; the ligature separated on the twenty-first day after the operation, and on the 18th of October the man was discharged quite well.

Waterford.

SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON COMPARATIVE OSTEOLOGY.

BY RICHARD OWEN, F.R.S.
Hunterian Professor to the College.

This Afternoon, March 29.—Lecture XII.—Osteology of *Birds* continued. The Skull; its Special Characters and Relations to the Habits and Exigencies of the Class. Smooth Sutureless Cranium: its Fossæ and Foramina. Advantages of the Single Occipital Condyle. Moveable Articulation of Cranium with Face. Mechanism for such Motion by the "Ossa Quadrata," "Homoideæ," and "Communicantia" of Ornithotomists. Varieties in the Size and Form of the Upper and Lower Mandibles: their Relation to Food and Habits. Special Homologies of the Cranial Bones of Birds. Determination of the Mastoids and Prefrontals. General Homologies of the Cranial and other Segments of the Skeleton, and their Relations to the Archetype. Application of the Osteology of Recent Birds to the Restoration of Extinct Species. Large and Unexpected Accessions to Ornithology from these Researches. Reconstruction of Dinornis, Palapteryx, and Notornis. Antiquity of Birds on the Earth's Surface shown by Fossil Foot-prints or "Ornithichnites."

Tuesday, April 1.—Lecture XIII.—General Characters of the Class *Mammalia*. Characters of the Sub-classes Implacentalia and Placentalia, and of the Implacental Orders: Monotremata and Marsupialia. Principles according to which the Placentalia are divided into the Sections Mutica, Ungulata, and Unguiculata, and these into the Orders Cetacea, Sirenia, Perissodactyla, Artiodactyla, Edentata, Rodentia, Insectivora, Cheiroptera, Carnivora, Quadrumana, and Bimana. Osteology of the Monotrematous Genera Ornithorhynchus and Echidna: Vertebræ of the Trunk. Ossified Sternal Ribs. Persistent "Vertebral" Ribs in the Neck. Analogy of Lumbar and Sacral Vertebræ to those of Reptiles. Marsupial Bones. Skull. Analogy of Smooth Sutureless Cranium, with its Ossified Falx, to that of Birds. Essential Mammalian Characters of the Skull:

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Homologies of the Cranial Bones. Scapular Arch. Bones of the Fore and Hind Limbs.

THURSDAY, APRIL 3.—Lecture XIV.—*Marsupialia*. Geographical Distribution and Classification of this Order. Its Osteology. Constancy in the Number of the "True Vertebræ." Extreme Variety in that of the "False Vertebræ." Peculiarities of Atlas and Dentata. Cervical Spines of Opossum. Tail Modified to serve as a Hand in the Opossums, as a Foot in the Kangaroos, as a Balancer in the Petaurists, and a Rudder in the Thylacines. Composition and Modifications of the Skull: Small Cranium: Long Separation of the Elements of the Occipital and Temporal Bones. Vacuities in the Osseous Palate. Inflected Angle of the Jaw. Great Diversity in the Thickness of the Cranial Bones of Different Species. Scapular Arch and Bones of the Fore-limb. Humerus generally perforated at the Inner Condyle, and sometimes between the Condyles. Bones of Fore-arm freely rotate in all. Scapho-lunar Bone of Wombat and Kangaroo. Pelvis and Marsupial Bones. Bones of the Hind-limb; their Close Correspondence with those of the Fore-limb in some Species; Degradation of the Toes in others. Fossil Marsupials of Australia. Antiquity of the Marsupial Type upon the Earth.

SATURDAY, APRIL 5.—Lecture XIV.—*Cetacea*. Their General Characters compared with that of Fishes; Vertebral Column: Anchylosis confined to the Region of the Neck. No Sacrum. Peculiarities of Ribs and Sternum. The Skull: Singular Development of the Cranial and Facial Bones: their Modifications in relation to Locomotion in Water and Respiration of Air. The Hyoid Arch. The Bones of the Fore-limb modified as a Fin. Rudimental Pelvic Bones. Cranial and Vertebral Characteristics of Sirenia. Antiquity of the True Cetacea on the Globe. The Great Zeuglodon of Alabama. Fossil Remains of Whales in the Suffolk Crag: their unexpected Value in Agriculture.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	March 29.—MEDICAL SOCIETY OF LONDON. *Subject*:—Dr. T. Snow Beck, "On the Symptoms, Diagnosis, and Treatment of Functional Diseases of the Uterus." Eight o'Clock.
Monday,	March 31.—CHEMICAL SOCIETY. Eight o'Clock.
Tuesday,	April 1.—LINNEAN SOCIETY OF LONDON. Eight o'Clock.
	PATHOLOGICAL SOCIETY. Eight o'Clock.
	HORTICULTURAL SOCIETY. Three o'Clock.
Thursday,	April 3.—ROYAL SOCIETY. Half-past Eight o'Clock.
	ZOOLOGICAL SOCIETY. Three o'Clock.
	HARVEIAN SOCIETY. Eight o'Clock.
Friday,	April 4.—ROYAL INSTITUTION. *Subject*:—Sir Charles Lyell, "On Fossil Impressions of Rain Drops in Ancient and Modern Strata." Half-past Eight o'Clock.
	BOTANICAL SOCIETY OF LONDON. Eight o'Clock.
	WESTERN MEDICAL AND SURGICAL SOCIETY. Eight o'Clock.
Saturday,	April 5.—MEDICAL SOCIETY OF LONDON. *Subject*:—Mr. Wakley, "On a Case in which Excision of the Astragalus and Os Calcis was made; with General Remarks on the Excision of Joints." Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, MARCII 29.

AMENDED CHARTER OF THE COLLEGE OF SURGEONS.

WHEN, towards the termination of the Conferences at the College of Physicians, the Council of the College of Surgeons put forth a resolution as the basis of an amended Charter, rendering ineligible to the Council every Fellow who resided more than five miles from the General Post Office, or who had practised pharmacy within five years from the period of election—thus practically excluding from the honours of the College all provincial surgeons and surgeons in general practice—we alone, among the medical press, uncompromisingly condemned the measure, and declared that a Charter embracing such conditions never would be accepted by the Profession. A few Societies, jealous of the efforts and objects of their opponents, extended to the scheme a timid advocacy,—a few provincial surgeons (among the rest) came forward to support it,—and even the self-proclaimed adversaries of the College seemed covertly to rejoice in the distraction that resolution caused. We, taking our stand upon the principles of justice and sound policy, strenuously opposed all these parties, and avowed our determination never to relinquish our hostility to the College scheme, until the degrading and offensive clauses were rescinded, and a Charter granted upon more equitable and comprehensive terms.

We are now happy to announce, that, at the last meeting of the Council of the College, it was resolved to *remove the restriction* limiting eligibility to the Council to those Fellows *residing within five miles* of the General Post Office; so that it is now proposed that EVERY PROVINCIAL SURGEON, otherwise competent, shall be eligible to the Council: also to remove the restriction on *surgeons practising pharmacy*; so that, in effect, EVERY GENERAL PRACTITIONER, being a Fellow, MAY BE ELECTED TO THE GOVERNING COUNCIL OF THE COLLEGE!

This is well done, and deserves the approbation of the Profession. But the Council do not stop here. Taking a more comprehensive and a wiser view than hitherto of the real interests of the College, and of its position and uses in future years, they have also resolved to conduct EXAMINATIONS IN MIDWIFERY; and thus more perfectly adapt this noble Institution to the increasing requirements of the Profession and the public. The horrible cases of obstetric malpractice which we have from time to time recorded have doubtless roused the Council to a sense of their duties, and determined them to seek for powers to conduct examinations on this important branch of practice. The College of Surgeons, in relation to the actual practice of the Profession, has hitherto been in a most anomalous position. The wants of the public have outstripped its vocation. Medical men have been daily performing delicate and perilous surgical operations, which the Established College of Surgeons did not recognise. The science and the practice of the Profession had equally outgrown the powers and precedents of the Institution which affected to lead the march of improvement, and to represent the art of surgery in England to the European world.

Thus the College encountered the risk of being assailed for butcheries and blunders which, from various causes, it was unable to obviate, or to confess that it in reality was not the representative of the Surgery of England in all its comprehensiveness. Hitherto the College of Surgeons, and the Councillors in particular, have been teachers merely of manual surgery,—an art not necessarily very intimately associated with Medical science; for the future, physiological laws will be more widely embraced, and we shall not be pained to hear a member of the Council unhesitatingly declare, at a great scientific meeting, that, in a case of Cæsarian section, the physicians determined on the expediency of the operation, and that he was merely called in to perform it. The science of surgery is degraded, if not altogether ignored, by such admissions, and the College of Surgeons becomes a reproach. However, there is now a hope that this opprobrium will soon cease to exist.

The concessions we have just recited are very important, and, without presumption, we may fairly take credit, not only for having had a clear foresight, at a critical period, of the true and eventual solution of the difficulties which then obstructed legislation, and divided professional opinion, but also for having, by the use of just argument and unflinching resolution, most materially aided in conducting events to this fortunate issue. The Council of the College have evidently seen the truth and force of our arguments, and have most worthily attempted to give them practical effect. These concessions will have strengthened the foundations of the College, and given it an increased power of resistance to

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opposition of a merely factious and selfish character. They will also have struck a fatal blow at the existence of the National Institute. This Society is undermined, and must fall. It may cry as loud as it will, but it cannot be heard, for the atmosphere in which it lived is abstracted. There can be no resonance of its grievances. Like a frog in the vacuum of an air-pump, it may croak, but its lamentations will be uttered in vain; for its principles are to a great extent appropriated, and all that is distinctive in its policy superseded. The Bill which it introduced to the Legislature will prove an abortion, and the politics of the Profession will speedily assume a new aspect.

Let us, however, not be mistaken. It is not yet smooth water for the College of Surgeons. The College, it is true, is thrown open to the Fellows—but what of the members? Surely, after conceding so much to one order, the Council do not intend to perpetuate the law of exclusion against the other! A good intention should never be frustrated by a feeble purpose. It is in the resolution to do right that public bodies generally fail. They know what is just, and they wish it were done, but they cannot assume the responsibility of doing it. Here is the rock, history informs us, that has shipwrecked great men and great nations. What wonder, then, if a medical corporation should break down!

It is our duty to tell the Council, that it is both right and expedient that the admission of members to the Fellowship should be fixed at ten years from the date of the diploma. A twenty years' franchise is a law of exclusion to more than half of the Profession, who can have no expectation of reaching the ripe age it implies. We have given to the Council ample praise for their concessions; we hope that their persistence in unjust restrictions will not, in future, render them open to our censure.

THE APPOINTMENT OF OFFICERS OF HEALTH.

The General Board of Health has recently issued instructional letters respecting the appointment and duties of officers of health, with the view of making more efficient the provisions of the Public Health Act for the sanitary improvement of large towns. We sincerely approve of the recommendations of the Board, which, if generally adopted, cannot fail to prove of great public benefit. It is obvious that a central board, unassisted by a permanent staff of officers acting throughout the country, must find it difficult, if it do not altogether fail, to perform the important functions committed to its charge. There cannot now be two opinions, even among the most uninformed and bigoted defenders of filth, that the enforcement of sanitary regulations in populous districts is absolutely necessary for the preservation of the health and comfort of all classes of the community, but more especially of the industrial, who are peculiarly exposed to the existing evils, and are least able to effect their removal. Long experience has informed us that an effective system of sanitary discipline can be carried out only through the instrumentality of an authoritative central board; and, although we have more than once pointed out the faults in the constitution of the present Board, yet we shall not allow those defects to interfere with a candid expression of our opinion upon the measure they may adopt in furtherance of the grand object of their labours. The step they have now taken deserves much praise; but we fear that, in submission to the timid spirit of modern legislation, sufficient power has not been conferred upon them by the Act to enable them to enforce the appointment of officers of health in districts and townships where the services they might render may seem to be most necessary. The Board took office with crippled powers, and, as a necessary result, their good intentions will be often frustrated, and their instructions become a dead letter. They must rely more upon the silent and steady operation of public opinion than upon the powers they hold for the final realization of their beneficial designs.

A staff of officers scattered over the face of the country, performing the varied duties set forth in the circular of the Board, will eventually work such a reformation in our sanitary arrangements, that our cities, ceasing to be feverdens and Golgothas, will surpass all other towns of modern Europe in salubrity, cleanliness, and decorum. Even the boasted sanitary discipline of ancient Rome will lose its claims to be cited as the wisest and the best in the records of civilization. Rome, notwithstanding the lucubrations of historians, was the victim of constantly-recurring plagues; and we hope that the time is not far distant when epidemic diseases will be unknown in the multitudinous squares, streets, and alleys of mighty London.

In accordance with the provisions of the Public Health Act, "the local Board of Health may, from time to time, if they shall see fit, appoint, with the sanction of the General Board of Health, a fit and proper person, being a legally qualified medical practitioner, or a member of the medical profession, and to be called the officer of health, who shall be removable by the said Local Board, and shall perform such duties as the General Board shall direct." The Board of Health now desire to apply practically and extensively these provisions. The Profession will observe that the *appointment* rests with the Local Board—a veto only being retained by the Central Board,—while the character of the *duties* to be performed will be prescribed by the General Board. In making this arrangement, the Legislature was anxious to avoid trenching too largely upon local rights, while it was equally anxious to secure an efficient performance of the work. Perhaps in the early stage of sanitary legislation no better plan could have been devised; but we must not overlook the possibility that the Local Board, who will have to *pay* the officer as well as *appoint him*, will reduce the stipend to an amount wholly inadequate as a remuneration for the laborious services the General Board may deem it their duty to require. We have an illustration of the grinding operation of the power given to local boards in this respect, in the salaries paid to Union surgeons; and we should be sorry to see the practice more widely extended. We object, also, to the power of removal being given absolutely to local boards, as it will necessarily expose the officer of health to the influence of local prejudices and passions, and tend to make his tenure of office insecure. As no officer can be appointed without the sanction of the General Board, so also no officer should be removed without its assent. The appointment of the medical officer should be made permanent, "*quamdiù se benè gesserit.*" We feel called upon to make these observations in defence of the interests of our brethren.

We are unable this week to refer to more than one other point in the recommendations of the Board; and that is the prohibition of officers of health from engaging in private practice. The Board assign various reasons for advising that such a prohibition should be enforced, and we think that most of them are strong and valid. They say, that "during the prevalence of the cholera, it was common for the Board to receive confidential communications from public officers chiefly dependent on private practice, such as medical officers of unions, representing the impossibility of their

doing their duty without giving offence to influential parties, and urging the necessity of some individual being sent down; some person connected with the Board, for example, or in an independent position, to act in behalf of the unprotected classes of the population." We cannot refrain from pointing out to the Board, that this argument cuts as deeply into the new as into the old system. Their officers, like the medical officers of unions, will be appointed by local boards, and will, therefore, in the performance of their duty be opposed by similar obstacles. This objection should be avoided. They present a more valid argument when they say: "On the other hand, when epidemics do break out and spread, the Board have had experience, particularly during the prevalence of the cholera, that this is the very period when public officers, engaged in private practice, are the least likely to render efficient service. During the recent epidemic, one of the causes which obstructed the execution of the Board's regulations throughout the country, on the part of the medical officers of unions, was the fact, that just at the time when there was the most need for the public services of such officers, there was the most demand for their services by their private patients. In such an alternative it is no matter of surprise that the public service suffered, as it could not but suffer." These observations are self-evidently just; and we have no doubt that, for a body of officers of health to be efficient, they must devote all their time to their public duties. As a general principle, we approve of this recommendation, and further agree with the Board, that it would be advantageous to "consult with other local authorities as to the practicability of consolidating the duties of the officer of health with any duties in reference to health connected with public or *quasi*-public institutions in the district." We fear that, unless such a consolidation of services is effected, the officers of health will be most inadequately paid, and that even their special duties as officers of health, owing to the large extent of surface over which they will in most instances be required to travel, will be inefficiently performed. The smaller the districts the better for the service; but small districts are inconsistent with a sufficient stipend. Nevertheless, we approve of these instructions of the Board as an honourable beginning in the right direction, and hope to see them generally adopted.

IRISH MEDICAL CHARITIES.

Sir William Somerville has obtained leave to introduce into Parliament a Bill providing for the better distribution, support, and management of medical charities in Ireland. Sir William proposes that there should be but one Board, and that a Poor-law Board.

We need scarcely remind our readers that many weeks ago we informed them such would be the case—our sources of information being superior to those of any medical journal in the kingdom. The poor Dublin Medical Press is rabid on the occasion, and quite out-herods Herod. For "vulgarity and gross exaggeration" the Dublin "weakly" is pre-eminent; and when the old maiden lady talks of others as being guilty of such vile doings, and of "gross libels," "disreputable persons," "dubious reputations," and "foul play," she only shows how sadly she winces, and that the jade would bite had not the venom of her tongue utterly ruined her teeth.

Cholera still continues to prevail in Bombay. It also continues in many parts of Jamaica, and has broken out afresh in the country districts.

REVIEW.

The Classification of Mankind by the Hair and Wool of their Heads; with an Answer to Dr. Prichard's Assertion, that "the Covering of the Head of the Negro is Hair, properly so termed, and not Wool." Read before the American Ethnological Society, Nov. 3, 1849. By P. A. Browne, LL.D. Philadelphia.

There is scarcely a scientific journal in Europe better entitled to discuss the question here mooted by Dr. Browne, of Philadelphia, than the *Medical Times*. It was in the columns of this journal that Dr. Knox first promulgated his bold and novel views respecting the History of the Races of Mankind, calling in question the Blumenbach and Prichard theories—if theories they can be called—and pointing out the fact, now all but universally admitted, that, whatever henceforward may be the form or formula of the natural history of man,—whatever explanations be offered of man's origin and probable or possible extinction,—whatever theory may henceforward prevail as to the unity he presents, as well as the variety, in time and in space,—one thing seemed to Dr. Knox as certain, namely, the effete character of Dr. Prichard's views—even before the demise of that candid and gentle writer—and their obvious speedy extinction.

Whoever will take the trouble to look into the work of Dr. Knox, as published in its more extended form, (a) will there find questions discussed, and to a certain extent decided, similar to, if not identical with, the two or three mooted by the American ethnologist. In that work it is distinctly stated, in more places than one, that anatomical differences, of a striking and inexplicable character, characterise the various races of men. In that work our readers will find the story of the degenerate shellfish-eating Celts of Connaught treated as pure nonsense,—the invention of ill-observing travellers; the story of the race of short-legged sheep, of some American county or district, denounced as a mere idle invention; the persistence of a bastard or mulatto breed, supporting itself unaided by a recourse to the pure breeds, white or black, held to be impossible, whether in man or animals. Modern statistics in defence of such a notion, Dr. Knox endeavoured to show, were unworthy of notice; and lastly, what Dr. Browne does not advert to, for reasons which will readily suggest themselves to the reader, the author of the "Fragment" endeavoured to show, that all history was against the present doctrine of statesmen, journalists, historians, and theologians, namely, that a race indigenous to one continent might be transferred to another, and become in time the natives of that adopted continent; that such attempts had always failed. We need not say how unpalatable such a view is to our Anglo-Saxon descendants in America.

We gather from the pamphlet before us, by Dr. Browne, that our Transatlantic brethren are alive to these, the greatest of all human questions. Dr. Browne does not seem to have been acquainted with Dr. Knox's work when he wrote his Ethnological Memoir; but he must be so now, the "Fragment" having been reprinted in Philadelphia, we understand, without the permission of the author. The frequency of such doings does not the less deduct from the meanness, not to use a stronger expression, of the act. A piracy is always a robbery, whether it be perpetrated on the contents of a purse or of a brain. We neither can discover nor recognise any real difference between the labour of the brain and the labour of the hands; neither do we pretend to put the one before the other. But to return to the pamphlet.

The following extract will explain a sufficiently interesting point:—

"New York, Nov. 19th, 1849.

"Extract from the Minutes of the American Ethnological Society.

"At a Meeting held on Saturday evening, November 3rd, 1849, Professor Robinson in the chair, Peter A. Browne, Esq., of Philadelphia, in compliance with the invitation of the Society, read a paper on the Physiology of Hair, Wool, and Fur, containing results of the microscopic examinations and the experiments which he has been prosecuting through the past year in Philadelphia.

"The following resolution was adopted, on motion of Dr. Francis:—

"Resolved,—That the thanks of this Society be presented to P.

(a) "The Races of Men: a Fragment."

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A. Browne, Esq., for his valuable paper, containing the results of his physiological investigations on hair, to which the Society has listened with deep interest.

"THEODORE DWIGHT, Secretary *pro tem.*"

It would seem, then, that there is an Ethnological Society sitting in New York bold enough to discuss the following questions. Now this is more than can be said of any Society in Britain. Let the pamphlet speak for itself:—

"In examining the natural covering of the head of man, the first circumstance worthy of note, is the want of uniformity in form or shape of a filament. If a transverse section or disk of one of these is made sufficiently thin to lie upon the object holder of a microscope, and it is examined under that potent instrument, it will be found to be *cylindrical*—if the same is done with a second, it will be proved to be *oval*—while a third will be *eccentrically elliptical*. By extending these examinations, as we have done, to hundreds of these integuments, it becomes manifest that *these three* are the PREVAILING FORMS *or* SHAPES. There are, it is true, some variations from these three; but they are not more numerous than the usual deviations from other general rules. Now we respectfully submit that, in making this *individual variance* in shape, but *specific adherence* to three forms, the basis of a classification of pile, we have not deviated from the usual path pursued by our scientific predecessors. The botanist pays strict regard to the *shape* of the root, of the stalk, of the leaves, and even of the flowers of plants; the mineralogist not only describes the *forms*, but even *measures the angles* of crystals; then why should the *shape* be disregarded in the grouping of hairs? In applying these rules, we soon found that the hair of the head of the Choctaw and some other nations of American Indians, is *cylindrical*—that the hair of the white man is *oval*—and that the wool of the negro is *eccentrically elliptical* or *flat*."

The Author here depicts the three *species*:—

"No. 1 is a representation of the shape of a hair of the head of a full-blood Choctaw Indian of 60 years of age, specimen presented by Dr. Nott, of Mobile. The original is black, straight, lank, and has a diameter of $\frac{1}{277}$ of an inch.

"No. 2 is a representation of the shape of a hair of the head of His Excellency, General George Washington; the original is colourless and flowing, and has for its greatest diameter $\frac{1}{277}$, and its least $\frac{1}{370}$ of an inch.

"No. 3 is a representation of the shape of a filament of wool of the head of a pure negro; the original is black, crisped, and frizzled, and spirally curled, and has for its greatest diameter $\frac{1}{277}$, and for its least $\frac{1}{370}$ of an inch.

"A further examination of these tegumentary appendages, and of these three forms of pile, satisfies us that they are equally distinguishable by *direction*; by which we mean the course, or path, which a hair pursues from the point where it pierces the epidermis to its apex. These, also, are divided into three kinds, viz. 1st. The straight and lank; 2nd. The flowing, or curled; 3rd. The crisped or frizzled, which is also sometimes spirally twisted. We crave patience, while we endeavour to show that each of these qualities of pile is dependent upon its *particular form*, in connexion with its essential properties, which are common to them all; and that, consequently, they must be found to prevail, respectively, in each of the above races. We propose to show that cylindrical hair must necessarily be straight and lank, and, consequently, if the American Indian has cylindrical hair, it must hang straightly and lankly from his head; if the white man has oval hair, it must necessarily flow from, or curl upon his head, and if the negro has wool, which is eccentrically elliptical, for that very reason it is crisped or frizzled, and sometimes curled spirally over his head.

"In order to make ourself understood upon these important points, it is necessary that we should premise that, among the essential properties of all pile are *ductility* and *elasticity*; they are so inseparably connected with this integument, as to become important tests of identity; enabling us, when we examine a filament in which they are absent, to determine that it is *not pile*. It soon became an object to us to ascertain in what part of a hair these properties reside; and, by repeated experiments of the most rigid and satisfactory character, we discovered that it is in the *fibres*.

"In all pile constructed according to the plan revealed by modern examinations under the microscope, there are antagonizing forces, viz., that of these ductile and elastic fibres to stretch and shrink, as acted upon mechanically or chemically, and that of the non-ductile and inelastic squamose cortex, to resist these forces. Now, when a hair is *cylindrical*, the stretching and shrinking tendency of the fibres is, on all sides of the filaments, *equal*; and this equality, aided by the restriction of the cortex, preserves the hair *straight*, and makes it *lank*. But when a hair departs from the cylindrical form, the stretching and shrinking powers of the filament become *unequal* in the same degree; for those of the fibres upon the two flattened sides become more powerful than those of the fibres of the ellipsoids; there is, consequently, a tendency in this filament to curve in the direction of one of the flattened sides; this tendency the cortex is unable to resist; whereupon the hair either *flows*, or *curls*, according to the degree of depression. Every one knows how easy it is to bend the blade of a surgeon's spatula in the direction of either of its flattened surfaces, while his whole strength cannot make it bend in either of the contrary directions. Just so it is, except in an inferior degree, with a flattened hair; a small degree of elastic force will cause it to flow towards one of its flattened sides; and a little more will make it curl in the same direction; but no stretching or shrinking force ever makes it flow or curl *edgeways*, or in the direction of its ellipse. We have examined numerous hairs under the microscope, with the elucidation of these very points in view, and have never witnessed a single deviation from this law; but, on the contrary, by attention to it, we have been able to trace the form and direction of hair from the cylindrical, (straight and lank,) through the oval, (flowing or curling,) to the eccentrically elliptical or flat, (the crisped or frizzled, and which is sometimes spirally curled.) It is true, that occasionally the shrinking process of the two flattened sides of a filament *alternates*, when an exception, in the shape of an *undulating* hair, is the consequence; but generally, if the shrinking force of the fibres on one side gains the ascendancy over that of the other, a curl in that direction is permanent; for the more the former is curved, the more force will be required for its recursion, and the more the latter is stretched, the less will be its power to return to its original condition. Now, if we were willing to admit that *mere forms* and *shapes* are sufficient ground whereon to build a classification of pile, by a much stronger reason may we be satisfied to do so when we find that, with these forms and shapes, are inseparably connected the *directions* of the integument.

"We proceed, in the next place, to the *inclination* of pile, by which we mean the angle which the filament forms with the tegument from which it proceeds. This inclination does not depend upon the *shape*, nor upon the *direction*; nor does the direction depend at all upon *it*; but the inclination is due, entirely, to the angle which the root of the hair bears to the skin of the animal in which it is imbedded. The roots of cylindrical and oval pile have an oblique angle of inclination, for which reason those hairs do not grow out of the epidermis at a right angle thereto, but incline in a determinate manner; while the roots of wool, which is eccentrically elliptical, or flat, lie in the dermis *perpendicularly*, and hence the filaments pierce the epidermis at *right angles thereto*. This is an exceedingly important distinction, which explains some anomalies that have puzzled shrewd philosophers; for instance, Dr. Prichard, in his 'Natural History of Man,' p. 21, gives a drawing and description of the head of a *Papua*, inhabiting the northern coast of Guinea, who, he says, has a large bushy mass of half-woolly hair (a) standing out from his head, on account of which his breed has been called '*the mop-headed papuas*.' The doctor says that they are a mixture of Malay and negro; but he appears at a loss to explain the phenomenon. It is the *hair* of the Malay, with the *inclination* of the negro's wool.

"Here, again, let us pause for a moment, and reflect upon our progress. We find the head of the white man covered with a pile which, in shape, is *oval*,—in direction, *flowing, or curled*,—and which *pierces the epidermis at an acute angle*; while the wool of the negro is, in form, *eccentrically elliptical, or flat*,—in direction, *crisped, or frizzled, and sometimes spirally twisted*, and in inclination, *issues out of his epidermis at a right angle*. We confidently appeal to naturalists, whether these are not *prominent specific* differences. But, to proceed.

"Pile is furnished with a colouring matter, which is variously disposed. The hair of the head of the white man, besides its cortex and intermediate fibres, has a *central canal*, in which this colouring matter, when the hair has any, flows; when this hair is *colourless*, the central canal is still fonnd, but it is then *vacant*. But the wool of the negro has *no central canal*; the colouring matter, when present, is disseminated throughout the cortex, or is in the cortex and intermediate fibres. Is not this also a specific distinction? But this variation in the disposition of the colouring matter is, as regards classification of pile, a more important feature than at first strikes the mind; for, according to the rules of science, one organ is considered *more perfect* than another, if it employs a greater variety of apparatus in the performance of its functions. Now, *here* we find the hair of the head of the white man possessing an apparatus, viz., a canal for the conveyance of its colouring matter,

(a) Quære—What sort of hair is that which is "half-woolly?"

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which, in the wool of the negro, is *entirely wanting;* nature *there* making use of the cortex, or the cortex and fibres for *this*, in common with *other* purposes. The inference is irresistible. The hair of the white man is *more perfect* than that of the negro; and, as we know, by experience, that, of all pile, that of the head of man is the most completely organized, we will not, perhaps, be wandering astray, in ranking the hair of the head of the white man as *a perfect hair.*

"Let us once more take a view of these distinctions as they have now been pointed out; only, this time, for the sake of greater perspicuity, confining ourselves to the integuments of the white man, and those of the negro. The hair of the white man is *perfect*, having not only all the apparatus found in other pile, but one belonging exclusively to itself, viz, a central canal for the conveyance of the colouring matter; it is, in shape, *oval;* in direction, *flowing*, or *curling;* in inclination, *acute angled* to the epidermis, out of which it issues.

"The wool of the negro, on the contrary, is an *imperfect* pile, having no central canal for the conveyance of its colouring matter; it is, in shape, *eccentrically elliptical*, or *flat*, and issues out of the epidermis at a *right angle* thereto.

"The next and last topic to which we mean at present to allude,—for it is not our intention to exhaust the subject, but rather to introduce it to notice,—is the *scales* upon the cortex of the pile.

"These scales, since they have been discovered to be the main cause of the felting and fulling of wool, have become objects of intense interest; but our observations in regard to them must be of a very limited character. We will, then, barely remark, that they are common to both hair and wool, but that they differ so much upon these two kinds of pile, as almost, if not entirely, to justify the assertion that, in the *first*, they are in a *rudimentary* state only, in the *second*, in their *perfect* one. On hair they are few in number, comparatively; they are smooth of surface, the points are rounded, and they closely embrace the shaft. On the negro's wool they are numerous, rough, sharp-pointed, and they project from the shaft. The hair of the white man *will not felt*, but the wool of the negro *will felt*. On hair, the edges of these scales resemble mere transverse striæ; on wool, they are prominent and apparent.

"But we are obliged to admit, that, opposed to these opinions of ours, there are some high authorities, the principal one of which we will proceed to examine."

In the preceding remarks on the structure of the hair in three of the more remarkable of the human races, too much stress, we think, is placed on what we would venture to call the microscopic argument. The basis of the argument, moreover, was first announced (though with no view to this special and direct application of it) by an ingenious though not very practical man, — the late Mr. Youatt, who wrote well and much on domestic animals. He first announced the fact, if it be one, which we still feel disposed to question, that wool differs essentially from hair in this—that the former (wool) presents under the microscope a serrated edge, the serræ being in the direct ratio of the quality of the wool and its powers of *felting;* whilst the latter (that is, *hair*) has no serrated edge, but merely presents a few *knots* at unequal distances. But the microscope, in so far as we have consulted it, does not support this doctrine to the extent advocated by Youatt and adopted by Browne; there is some truth in the view, but it is exaggerated, distorted, and made too much of. Hair felts as well as wool; the human hair itself felts in the plica polonica, and also under other circumstances.

Admitting, then, that the system of hair which covers the hairy scalp differs in these races of men, as they do no doubt in all others, the difference is not so wide—not so remarkable as to affect the truth of the great law of unity of mankind. The form of the hair, or, as Mr. Browne calls it, the pile, in the Bosjieman now in Britain, is worth a more careful examination than has hitherto been devoted to it; but not more so than all other points of their anatomy.

As is usual in most scientific inquiries, several observers have contributed their quota towards the elucidation of the points then and still disputed,—Ebel, for example, and Flourens, and Youatt. Dr. Prichard weighed the contending and conflicting evidence, arriving at the conclusion, that the phaneric portion of the integument of the negro scalp *is hair*, and *not wool*. Mr. Browne, with others, arrives at an opposite conclusion, which is this—the truth probably lying between the two extremes:—

"1st. Hair is in shape either cylindrical or oval, but wool is eccentrically elliptical or flat; and the covering of the negro's head is eccentrically elliptical or flat.

"2ndly. The direction of hair is either straight, flowing, or curled; but wool is crisped or frizzled, and sometimes spirally twisted; and the covering of the negro's head is crisped or frizzled, and sometimes spirally twisted.

"3rdly. Hair issues out of the epidermis at an acute angle, but wool emerges at a right angle; and the covering of the negro's head issues out of the epidermis at a right angle.

"4thly. The colouring matter of a perfect hair, for example that of the head of the white man, is contained in a central canal; but that of wool is disseminated in the cortex, or in the cortex and intermediate fibres; and the covering of the head of the negro has *no central canal.*

"5thly. The scales of the cortex of hair are less numerous than those of wool, are smooth, and less pointed, and they embrace the shaft more intimately; and the scales on the filaments of the covering of the negro's head are numerous, rough, pointed, and do not embrace the shaft intimately.

"*Corollary.*—Hair will not felt, but wool will; and the covering of the negro's head will felt—has been felted."

As connected with this subject, though not necessarily so, comes the question of *hybrid wool*, and *hybrid sheep*, and *hybrid races* of animals, which Mr. Browne also discusses. This is no new question. Baron Cuvier's Works furnish the best argument against the possibility of forming, under any circumstances, a permanent variety or *hybrid race* out of two or more pure breeds of animals. But Cuvier did not himself venture to draw this conclusion; we even think that he occasionally maintained the contrary. But, be this as it may, we know that the author of the "Races of Men: a Fragment," has always maintained the doctrine, *that hybrid races, when formed, are never permanent*, uniformly becoming extinct, or reverting to one or other of the pure breeds from which they originally came. This doctrine he applied to man, illustrating it extensively by an appeal to history. Thus, in Britain, he showed that hybrid sheep produced by an admixture of two races more or less pure, uniformly became extinct in the event of the breeder confining his operations to the hybrid stock. We have heard, that in New Zealand and in Australia the cattle imported from England gradually return to the pure breeds.

From these facts Dr. Knox drew important practical conclusions as regards the hybrid races of man and animals, to which we need not further advert here. His views applied both to nations and to races, to man and to animals; to the sheep of the Cape, to the men of Bohemia; one law, in his view, variously modified according to species, regulating all.

The editor of an American periodical, in noticing and publishing Dr. Browne's paper on the Human Hair, adverts to other memoirs by this ingenious gentleman. It would seem that Dr. Browne had turned his attention to the quality of the wools produced in the United States, with that fine utilitarian spirit characterising the Saxon wherever he may be found. The editor, also, a Saxon American, in alluding to the position of his "favoured country," arrives at the conclusion, quite as strong as if he had been born in Yorkshire and brought up in London, "that the *wool of imported sheep, without crossing, actually improves by domiciliation of the animals in* OUR *climate and on* OUR *soil.*"

Why this should not happen *for a time* we see no reason; but then comes the question of *time* on *race*, and of continental climate on *race;* questions which Dr. Browne has not entered on, and perhaps does not altogether clearly comprehend. In the meantime we doubt the fact of North American wool being equal to the Saxon; a question, however, much more likely to be practically decided at Bermondsey than in the Hall of the American Ethnological Society.

The editor of the American journal we now quote from chuckles over these discoveries, as he calls them, offering them as proofs of the superiority of the American to the European!—a natural result, he thinks, of "our (American) climate, political and social institutions, and the impulsive effects of the geographic and scenic features of our extensive country." It is quite delightful to see the son so like the father in some qualities of mind, among which, that of an excellent opinion of oneself, with a corresponding contempt for others, is, if not the most amiable, at least a useful quality of the human mind. *Neanmoins*, we strongly recommend moderation in all things. Some letters of Jefferson, addressed indirectly to the United States men, might be reprinted and distributed among "the people" with great advantage.

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Dr. Prichard's errors, which no doubt exist, the editor ascribes to "the piety and humanity" of the man.

We come next and last to the second question mooted by Dr. Browne, but long since discussed by Dr. Knox; namely, the extinction in time of all hybrid races of men.

When this great and most important question was first proposed by the author of "The Fragment" in his lectures published in the *Medical Times*, the conclusion then arrived at met, we believe, with opposition from all quarters. Nevertheless the opinion, we find, gains ground, and may probably prove the correct one. The mulatto, or hybrid races of men, do not thrive, do not increase. How should they? In St. Domingo we are assured that the *browns* decrease; the blacks will increase for a time, but it does not absolutely follow that they can ultimately take the place of the original Carib race the Spaniards destroyed. This is also a great question. In the meantime Mr. Browne asserts, although his statistics do not appear to us quite unobjectionable, that the mulatto population cannot stand its ground in America.

Dr. Prichard based most of his proofs on the Statistical Tables of Ragundus, but more especially on the population of our West Indian colonies; but these Tables, it seems, are, from their wide generalizations, wholly useless. All this may be true; still there is not a tittle of refutation offered by any other statistics. Let us hope that other unbiassed inquirers may enter on the field of observation and of science; procure for us unexceptionable statistics; compare the present with the past. A scientific man is of no country, or, at least, ought to be of none; and in this, as in all other physiological and historical inquiries, it is not what the Americans or any other people would like to know, but what, being true, they ought to know. The world is well aware of the hatred which the Saxon bears to the coloured races of men, and especially to the negro; into the causes of this dislike we do not choose to enter. The author of the "Fragment," so frequently alluded to here, affirms frankly and boldly, that the cause resides in the natural, inextinguishable hatred and dislike of race to race; of one animal to that of a different species. We leave the argument in his own hands, merely hinting, as a lesson to our Christian Transatlantic brethren, that animals of very different species live together and feed together without disputes or violence. They have no desire, it is true, for appropriation and annexation; and we can easily imagine that it never entered into their heads that "the earth was made for them alone." Other races, as well as the Saxon, have thought so too. Time, "Truth's eldest daughter," will settle all these questions; against the Anglo-Saxon, we believe.

GENERAL CORRESPONDENCE.

THE CASE OF ANN MERRITT.

[To the Editor of the Medical Times.]

SIR,—Your readers have doubtless read enough, and more than enough, of the case of Ann Merritt, who was convicted at the Central Criminal Court about twelve months since, of poisoning her husband by means of white oxide of arsenic. Nor should I have attempted to renew the subject, had I not observed, in a report of a recent trial at Chelmsford, that Mr. Clarkson, when defending the prisoner, attempted to weaken the evidence of Mr. Alfred Taylor, by asserting that a good deal of it was purely theoretical, and that it was possible he might be mistaken, as was a medical gentleman of great experience and knowledge of his profession who recently gave evidence at the Central Criminal Court in the former case.

This, however, is not true, for the facts of the case were these:—The prisoner (Merrit) declared that her husband had, early in the morning of the day on which he died, taken the arsenic by mistake for a soda powder. Dr. Letheby stated, on his examination at the trial, his opinion to be, that the fluid found in the stomach (which amounted to about a pint, and in which eight grains of arsenic were *dissolved*,) could not have been given more than four or five hours before death, as, although so large a quantity was found in the stomach, scarcely a trace of arsenic could be detected in the intestines; also, that the average time for fluids to pass from the stomach into the intestines did not exceed five hours.

The judge, in his charge to the jury, told them, that if what Dr. Letheby had stated were true, no hand but the wife's could have administered the poison. The jury believed it to be true, and found a verdict accordingly.

I understand that the case was afterwards submitted to some other members of our Profession, who arrived at a different conclusion. I will not stop to inquire whether the judge did well in leaving the jury to come to a decision upon a question of physiology; but, had I been re-examined, and my opinion asked as to how long before death the fluid containing the poison had been administered, I should have stated, in corroboration of Dr. Letheby's evidence, my belief that the matter found in the stomach had been given a short time only before death; and I ground my belief upon the following:—1st. That when I saw the poor man, between ten and eleven o'clock at night,—he died about twelve,—he was vomiting violently, and bile was being ejected from his stomach. Neither bile, nor anything having the appearance of bile, was found in the stomach after death; indeed, the matter vomited differed altogether in appearance from that which was afterwards found; and, 2udly, I cannot conceive it possible for a person to vomit as I saw this man do, and yet retain a pint of fluid in his stomach.

My conclusion is, that the last dose was administered after my visit. I am, &c. FRANCIS TOULMIN.

Clapton.

[Our Correspondent must not attach too much importance to any remarks made by counsel in courts of law; for, by a very anomalous condition of things, the "hired advocate" is bound, by the rules of modern legal practice, to support the cause of his client at all hazards, be it never so base. In theory it is presumed that the advocate stands before the tribunal merely to investigate facts, and, although he may be there to plead the cause and represent the person of his client—"*utimur enim fictione personarum, et velut ore alieno loquimur*"—yet, as Mr. Forsyth very justly remarks, "he cannot possibly, by virtue of his agency, acquire rights greater than are possessed by his principal. He may not assert that which he knows to be a lie. He may not connive at, much less attempt to substantiate, a fraud. He may not avail himself of the wretched sophistry of Paley, and say that there are falsehoods which are not lies—that is, which are not criminal." Such is the theory of an advocate's duty, but in actual practice it is found to be far otherwise.

In the instance before us, there cannot, we think, be any doubt of the correctness of Dr. Letheby's opinions, notwithstanding that it was questioned by those who were ill-informed on the subject. We are in fact assured, on very good authority, that the whole of the matter underwent a very searching inquiry before the Home Secretary, during which it is said that many facts were elicited tending to confirm the truth of the medical evidence. We have no doubt, however, that the case of Ann Merritt, like that of Madame Lafarge, will be often referred to in courts of law, in the hope that it might be made the means of weakening the force of medical opinion; and it is to be regretted that the members of our Profession will, by their meddlesome interference in such cases, and by their uncalled-for abuse of each other, so far damage the respect due to them from the bar as to give the advocate an opportunity of commenting on their opinions and conduct in the most insulting manner.—ED. *Medical Times.*]

YELLOW FEVER.

[To the Editor of the Medical Times.]

SIR,—In the last number of your Journal, you have published a note from me, containing an extract from an official letter, expressing the opinion of the Governor of Cayenne, as to the difficulty of tracing the origin of the yellow fever, which has lately prevailed in that colony.

By the last packet from the West Indies I have received a letter from my friend Dr. Blair, Surgeon-General of British Guiana, inclosing a copy of one to him from Baron Van Rader, Governor of Surinam, of the 6th February, giving some particulars relative to the mortality from that fever, with a return of the deaths, which, as they may be interesting to some of your readers, I shall transcribe, and which, should you consider them as I do, you will oblige me by publishing.

Baron Van Rader's informant is next in authority to the Governor of Cayenne. Writing on the 28th of January, he states, that since the 23rd of November the deaths amounted to 218, and of

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these 45 occurred since the 15th of January; adding, "The troops and the unfortunate crew of the Tartan are decimated; and that the high authorities have had their ranks much thinned, the epidemic seeming to covet those who are most cherished and most honourable."

Return of Deaths in Cayenne from Yellow Fever from the 4th November, 1850, to 14th January, 1851.

	Europeans.	Africans.	Americans.		Europeans.	Africans.	Americans.
Nov. 4	...	1	...	Dec. 16	...	...	1
— 5	...	...	1	— 17	7	...	...
— 6	1	...	...	— 18	2	...	...
— 7	1	1	...	— 19	4	1	...
— 11	...	...	1	— 20	3	...	1
— 13	1	...	1	— 21	2	...	1
— 19	1	...	1	— 22	...	...	1
— 20	...	1	...	— 23	2	...	...
— 22	1	...	...	— 24	...	...	3
— 23	1	...	...	— 25	2	1	2
— 24	1	1	...	— 26	1	1	3
— 25	...	1	1	— 27	1	...	1
— 26	1	...	...	— 29	2	...	2
— 27	...	...	1	— 30	5	...	2
— 29	2	...	2	— 31	3	...	...
— 30	1	...	...	Jan. 1	3	...	1
Dec. 3	2	...	...	— 2	5	...	...
— 4	1	...	...	— 3	1	...	2
— 5	5	...	...	— 4	1	...	...
— 6	3	...	1	— 5	1	...	1
— 7	8	...	1	— 6	2	1	—
— 8	1	...	...	— 7	5	...	...
— 9	3	...	...	— 8	6	...	2
— 10	...	...	1	— 9	5	...	2
— 11	1	...	...	— 10	3	2	...
— 12	2	...	1	— 11	6	2	1
— 13	2	...	...	— 12	5	2	1
— 14	2	...	1	— 13	6	...	1
— 15	2	...	...	— 14	1	...	3

It is mentioned in a note, that, of the Europeans who died, a somewhat large proportion were natives of Madeira, (so ranked in virtue of their extraction;) and of those enumerated as American, some were creoles of Cayenne, others of the other West Indian colonies.

When the letter to Governor Van Rader was written, the endemic had not terminated, it was feared. The cases, it is stated, had, however, become less severe,—a mitigation attributed by the physicians to the rains which they then had.

It would be out of place to make any comments on the above, especially as regards the much vexed question of the nature of the disease, whether contagious or not. As the facts, judging from the return of deaths, appear to be carefully recorded, it is to be hoped that they will be published in detail by some competent and unbiassed observer on the spot, and that with as little delay as possible, as soon as the disease has completely terminated; so that, if any statement should be questionable, it may be duly and timely inquired into. I am, &c., J. Davy, M.D.

Lesketh How, Ambleside.

TYPHOID FEVER.

[To the Editor of the Medical Times.]

Sir,—I beg to enclose, for publication in your Journal, a singular case, which I think must be interesting to every medical man who is much engaged with fever patients.

I have another remarkable case now in hand, of encephaloid cancer of the liver and suprarenal capsule, which I hope to send you next week.—I am, &c.,

J. Vaughan Hughes, M.D.,
Physician to the Bedford Fever Hospital and General Infirmary, Bedford.

Bedford.

Rachel Hawthorn, aged 14, lacemaker, attacked with typhus fever in an infected district, was admitted into the Bedford Fever Hospital Dec. 28, 1850, complaining of severe pain in the hypogastrium, extending down the lower extremities, and accompanied with tenderness in the hypochondria. Diarrhœa had been present for a few days; the fæces very offensive, of a yellow-ochrey colour, and rather slimy; pulse varying from 110 to 130 in a minute. There was no delirium observed at this stage of the disease, nor yet any embarrassment in the breathing.

Jan. 3.—Our attention was drawn to a swelling, which proved, on examination, to be an enlargement of the right nympha, pyriform in shape, highly vascular, and exquisitely painful. The introduction of the finger into the vagina was attended with some difficulty and much agony, in consequence of the swelling and heat in the genitals. The urethra seemed highly inflamed, giving rise to excruciating pain during micturition, so much so as to cause the patient to shriek out, the whole frame being simultaneously agitated with a slight convulsive paroxysm. The abdomen was becoming more and more tender to the touch, and all along the hypogastrium remained in a very sensitive and painful condition, aggravated by each evacuation of the urine and fæces.

Jan. 7.—The swelling in the labium suppurated after the application of poultices, and discharged some unhealthy-looking pus, thereby affording some relief. But now extreme depression came on; the diarrhœa, with blackish stools, continued, together with frequent vomiting and hiccough; subsequently insomnia and dyspnœa supervened, and she died suddenly on the evening of the 8th, having shortly before death uttered a very loud scream.

Examination Twelve Hours after Death.—On laying open the abdomen, upwards of a pint of dark semi-fæculent fluid was seen filling up the pelvic cavity and lumbar region, which was found to be extravasated from the ileum intestine, the bowel being perforated about eight inches above its termination in the cœcum; the external opening in the intestine was partly coated over with plastic effusion; the edge was well defined, sharp, and oval in form; the inner orifice was larger than the outer; Peyer's glands were enlarged, *and ulceration had commenced only in a few places*. The ileo-cœcal valve was thickened; colon and rectum healthy; blackish discoloration of the lining membrane of the uterus. On careful examination there was found a stricture in each Fallopian tube about the centre, which was perforated by a small thin probe; the portion near the fimbriated extremity was dilated and filled with purulent fluid. The fimbriæ themselves were of a dark reddish colour; the ovaries softened in texture, which could be easily pressed out of their fibrous and peritoneal investment. There were numerous enlarged Graafian vesicles filled with serous fluid; abscess with opening in the right nympha; the other viscera healthy.

The above case of typhus appeared to possess singular interest on account of the peculiar secondary affection with which it was complicated. We have often to contend with cardiac, pulmonary, gastric, and cerebral complications; but we seldom or never meet with an attack upon the genital organs. The urgency of the symptoms were such as to claim the undivided attention of myself and Mr. Yates, our zealous House Surgeon. We might inquire what was the cause of this genital complication. Did it originate in the ovaries, from being in immediate contact with the extravasated contents of the bowel? And did the inflammation thus set up travel down the Fallopian tubes to the uterus, and from thence to the vagina and labia? or was it a local complication independent of the perforation in the intestine?

If the perforation had taken place prior to the 3rd of January, and its contents had gradually passed into the abdomen, then we might reasonably conclude that the uterine disorder originated from the irritation of an acrid fluid; but could a fever patient survive five days with such a perforation? Louis considers ("Rich. Anat. Path." p. 195) that the symptoms may remit, and the patient continue to live on seven days. Dr. Ormerod, in his clinical observations on fever, states that perforation is extremely rare in the disease, and the symptoms rather obscure; his twenty-fourth case, which most resembles the one before us, was not suspected, and he relates no cases in which a genital complication was present. As far as the treatment was concerned, it is to be observed that, as the fever was of an ordinary character till a few days before death, no active measures had been taken. The intellect was clear nearly to the end. Fomentations and anodyne enemata gave the most relief.

ST. MARY'S HOSPITAL.

ELECTION OF ASSISTANT MEDICAL OFFICERS.

[To the Editor of the Medical Times.]

Sir,—I wish, through the medium of your influential paper, to catch the attention of "the Committee of Nine," who are now on the eve again to exercise the trust reposed in them by the Governors at large, to elect efficient gentlemen as juniors, or assistants to the seniors already chosen.

The first great object, of course, is professional qualifications and competency; and the next,—scarcely inferior,—viz.; that the elected should be known and personally approved by the several

seniors! To attain this cordial coadjutorship must strike every Governor as not the least essential acquisition for the well-being and beneficial working of the hospital. Then the question arises, how is this important harmony of association among the staff attainable? This is the point I want to bring to the consideration of the Committee-men; and the only way, in my humble opinion, to accomplish this *sine qua non* is, that the seniors should be left to choose their own juniors! In the choice of seniors, the Committee could not obviously take such a course as I advocate; but now there is a senior staff, the difficulty is over, and the road is clear. The selection of the seniors has given full satisfaction and assurance to all disinterested governors and observers that, so far, the medical department of St. Mary's Hospital is sound and valuable; to complete that assurance and satisfaction, my opinion and advice is, that those senior gentlemen should have confided to them, individually, the choice of their own juniors. I hold such a course to be only a becoming compliment to the senior gentlemen; a compliment which has expediency and justice combined with it, and not therefore mere compliment, *et præteria nihil*, which might be repudiated by some as unbusiness-like. Such a course would save a world of time and trouble to the *Nine*, as well as guard against the possible mischief of having Dr. Alderson and Mr. Coulson annoyed and justly soured by the selection of some inefficient tyro, who, perhaps, though a most amiable young gentlemen, with lots of interest to earwig the Committee, is yet, in spite of all his social niceties and talkative attainments, a very uninformed person, and wholly unfit for a profession demanding cultivated genius and a mind habituated to philosophical reflection. And surely, Sir, the Committee could not be jealous or suspicious of such men as Dr. Alderson and Mr. Coulson, that they would betray the interests of the public to forward personal partialities. Away with such a thought!

I am, Sir, a life governor, and quite as capable as any governor of service to the institution, if wisely, disinterestedly, and generously managed. I was asked to be on the Committee, but declined, as I do not like committees to reconcile and fight against such diversity of notions; but I know and feel that a good medical staff is the *unum necessarium*; and, had I the powers as well as the inclination, I am sure I should best serve the hospital by confiding in the senior medical men for good juniors. Such a course is the only judicious one; and to place that honourable confidence in these gentlemen is no more than they deserve at the hands of the Committee of Nine who elected them, and in which I am sure the body of Governors would concur, and cordially approve and support.

I am, &c., A. B.

ASCARIDES TREATED BY KOUSSO.

[To the Editor of the Medical Times.]

Sir,—The following case is, I think, of interest:—Three weeks ago, Mr. N., a gentleman in a public office, applied to me. For more than two years he had suffered from thread-worms, and a host of anomalous symptoms. During that period, not only had he used turpentine lavements, but had further been exposed to all the regular routine of practice generally adopted in similar cases; calomel, drastic purgatives, oleaginous vermifuges, salt and water, rue, worm-seed, and pomegranate, were ineffectually administered. Worms are always enveloped in a great quantity of viscid mucus, and thus were they probably sheltered from the action of the turpentine.

I determined to try Kousso; and I believe I now record the first instance of its use for the removal of ascarides. The drug was obtained from Mr. Savory, of Bond-street. I directed my patient to take a dose of castor oil at bed-time, and in the morning, when the purgative had freely operated, to inject an infusion of Kousso—ʒss. ad ʒviij.—into the rectum, and to take the same quantity by the mouth. He did so with the happiest results. A great quantity of worms came away; he has had no return even of the itchiness, from which he had previously suffered much, and now assures me he feels "quite a new man."

Anthelmintics are injurious both to the stomach and the intestines; while, by debilitating these organs, they render them more appropriate habitats for worms. I trust we may venture to hope, that in Kousso a perfect and innocuous vermifuge has at length been found; and that, acting as a simple purgative on the intestines, but as a direct poison on the worms, it expels them without injury to organic tissues. I am, &c.,

J. Stevenson Bushnan,
Physician to the Metropolitan Free Hospital.

7, Nottingham-place, Regent's-park.

MR. HESTER'S OPERATION.

[To the Editor of the Medical Times.]

Sir,—The remarkable instances of contraction of cicatrices mentioned by Mr. Hester in your last Number, are full of interest, as indicating the amount of relief that may be afforded in apparently hopeless cases; and it will, no doubt, be encouraging to that able surgeon to know that the plan has been adopted by others in minor cases with success. In Dr. Mackenzie's work on Diseases of the Eye, p. 196, (ed. 1840,) will be found a description and woodcuts illustrating this very proceeding as applied to ectropium from burns. It was, I believe, first suggested by Mr. Wharton Jones, and has been practised with advantage in several cases. I am, &c. C.

London.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. Hodgson, Esq., President, in the Chair.

A case was read on extensive necrosis of the bones of the cranium, by John Drummond, F.R.C.S., Deputy-Inspector of Hospitals, Chatham. The disease was very extensive, and still in progress. The greater part of the calvarium was already lost by caries and necrosis, and Mr. Drummond had but little doubt the remaining portion of bone would also be lost. The diseases were the result of a fall down some stone steps, six years previously at Sierra Leone. The patient was a sailor. At the time, it was supposed that no other injury than a scalp-wound had been sustained, but necrosis subsequently took place; attacks of erysipelas occurred from time to time, abscesses followed, and at last nearly the entire of the calvarium was destroyed. At no time were there any attempts made by nature at osseous reproduction. In the subsequent discussion, Dr. Webster mentioned the case of a violent lunatic at Bethlem Hospital, who, in the absence of the keeper, placed the back of his head on the fire, thus causing the destruction of the scalp, and of a very large portion of bone. He recovered, and lived several years afterwards. His violence left him, and he was very quiet and steady afterwards. Mr. Shaw exhibited crania, showing extensive destruction of the osseous case of the brain, with more or less attempts at repair by ossific deposit, or the formation of membrane. Both himself and Mr. Hodgson having spoken at some length on the reparation of cranial bones after injury, a paper by Mr. Hilton, on puncturing the legs in anasarca from organic disease, was read. Mr. Hilton alluded to the danger hitherto supposed to attend this operation, which he attributed to the extent of the incisions, to allowing the limb to lie for a long while bathed in the effusion as it drains from them, they becoming wet and chilled, and the blankets on which they rest being equally uncomfortable. He has seen the operation afford relief to the apparently dying, to remove the terrors of suffering from death, and even to prolong life somewhat. The plan he recommends is puncturing the subcutaneous cellular tissue of the leg with a long, narrow-shaped, steel lancet. Two punctures in the leg and two in the thigh would be sufficient, he believed, to drain off the anasarcous fluid from every part of the body. After the puncture, each limb should be wrapped in a separate blanket, to be changed when wet, while, to prevent excoriation, the fluid exuding may be conducted along worsted threads into gutta-percha tubes. Mr. Hilton then entered upon an elaborate description of the connexion between the subcutaneous cellular tissues of the body, in illustration of the way in which these punctures drain off all the fluid; and then, after briefly mentioning the bad consequences that had occasionally followed puncturing the legs, contended that they might be risked, on account of the relief gained. Dr. C. J. B. Williams, Mr. B. B. Cooper, and Dr. Snow commented on the paper of Mr. Hilton, but notice of their remarks must be deferred to next week. Towards the close of the evening, a case by Mr. Moore, detailing extensive comminuted fracture of all the bones of the pelvis, united by fibro-cartilage only, with the head of the left femur driven through the acetabulum, which was broken into three pieces into the pelvis, was read. The man survived the injury some years. The paper contained some very interesting remarks on the resulting deformities, as affecting the spine, pelvis, and limbs.

A more detailed account will be given next week.

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MEDICAL SOCIETY OF LONDON.

Dr. Murphy, President, in the Chair.

APPARATUS FOR CARINATED STERNUM.

Mr. Borlase Childs exhibited an instrument for carinated sternum. This he had been in the habit of employing for the treatment of these deformities during the last twelve years. He had been induced to adopt it then, from the result of his investigations, he being then enabled to devote more time to the examination of these deformities than his practice at present allowed him to do. It therefore could not be said, that he came before the Society with a new instrument, or with any theoretical views as to its action, since experience had long since confirmed its value. He remarked, that few cases are more obstinate or more unsatisfactory in their treatment than these affections. Various forms of gymnastic exercises have been tried,—the dumb-bells, sceptre exercises, skipping ropes, chest expanders, and others, but without avail. In conjunction with attention to the general health, the exhibition of steel and other tonics, together with change of air and cold sea-bathing, are also recommended, and generally adopted, but with no other success than that of improving the general health, and, in some cases, staying the progress of the deformity, not exercising any control over the original displacement. The instrument he exhibited is of simple construction, and, when employed in early life, would be found most effective. It consists of a steel support for the back, the upper part being made broad and slightly hollowed to fit over the scapulæ, the lower part about two inches wide, bent to the shape, passes down the spine, the whole being well padded on the inside. The support is retained in its position by two padded straps, which pass around the arms, and a band which buckles round the waist. From the middle of the support a steel spring, terminating in a padded plate of metal, passes round one side of the body, so that the pad presses on the projecting sternum. This spring has a set screw, by means of which the pressure can be increased or diminished at pleasure. A strap passes round the opposite side of the body to counterbalance the power of the spring. With regard to the causes of this affection, he (Mr. Childs) believed that it more frequently occurs in early life, and is mainly dependent on defective expansion of the lungs, the sternum being driven forward from the pressure of the external atmosphere on the sides of the chest. Dr. Barlow, in his article on Education in the "Cyclopædia of Practical Medicine," thinks that it arises sometimes from the common mode of exercising infants. The hold taken of a child in the act of hoisting it, is by the hand grasping the side of the chest, the consequences of which are, that the ribs are compressed and the chest thrown out in a carinated form. Dr. Copland says, that his experience leads him to state that it comes on generally after birth, owing to defective inflation and development of the lungs, arising from the weakness of the muscles of inspiration, and flexibility of the ribs at the time of birth; in this opinion, he (Mr. Childs) concurred. Dupuytren thinks that the deformity is almost constantly attended by enlargement of the tonsils,—an enlargement, the connexion of which with this deformity depends upon a cause as yet unknown. However varied may be the opinions of surgeons, as to the cause of this affection, he (Mr. Childs) believed they all agreed upon one point, and that is, the earlier the deformity is corrected the better, and that we are more likely to succeed at an age when the bones are pliant and yielding than at a later period. Dupuytren considered that the best treatment was to exercise the muscles which extend from the arms and shoulders to the chest, and condemned permanent pressure on the sternum, under the impression that it would cause insupportable pain, irritate the skin, inflame it, and produce abscess, or at least scars. In lieu of this, he recommended the patient to be placed with his back against a wall, and with the palm of the hand placed upon the most projecting part of the sternum, to push it backwards by alternate movements, following those of respiration. These are to be repeated a hundred times a day, if possible, and continued for several minutes each time. This has always appeared to Mr. Childs a very unsatisfactory mode of treatment; and, instead of rectifying the deformity, it is, in his opinion, more likely to favour its development, from the increased mobility it affords to the osseous structure, and a consequent yielding of the bones in their abnormal direction. He has tried it, but without that success it appears to have met with in M. Dupuytren's practice. With reference to Dupuytren's objections to permanent pressure, he (Mr. Childs) thought that they are so trifling that we ought not to be deterred by them from employing it. He had never met with any of the untoward circumstances alluded to; and, in the case of a young man about sixteen years of age, at present under his care, after wearing his apparatus, which he calls the sternal compress, about four months, he is very nearly cured of his deformity, without experiencing the slightest inconvenience from it; although his employment, being that of a printer, would be very likely to assist in producing the affections alluded to by Dupuytren. It may be added, in illustration of the utility of the apparatus, that the chest gains half an inch during the act of inspiration while it is worn. The apparatus is manufactured by Mr. Walters, of Moorgate-street.

DISEASE OF THE ARTERIES: DRY GANGRENE.

Dr. Crisp exhibited the thoracic and abdominal aorta, with other arteries, and the vena cava and vena saphena, from an old woman, aged eighty-eight, who had spontaneous amputation of the foot from dry gangrene. The arteries were impregnated with fat; bony deposit in some of them; the semilunar aortic valves stiff, dry, and parchment-like, their convex edges being in apposition. Along the course of the posterior tibial artery were several deposits of lymph and blood corpuscles enclosed in distinct sacs.

KOUSSO IN TÆNIA.

He then stated that he had given kousso to two patients affected with tænia at the Metropolitan Dispensary. On one it produced no effect; in the other case the worm was expelled, with the head, as he *at first supposed;* but Mr. Quekett found, on placing the worm under the microscope, that that part was absent.

Dr. Routh remarked, that turpentine was found to be the most valuable remedy in cases of the tænia which is ordinarily met with in this country and in Malta, the tænia solium, but was altogether inefficacious with that of Switzerland, the tænia lata. There are two other varieties occasionally met with, the tænia floriceps, and the tænia bothriocephalus, known only by the structure of the oval segments. Now, it might so happen, that a remedy which was very serviceable in a case where one of these animals existed, might be used where another variety was in the intestine, and then it would not effect its expulsion. The filix mas was, he thought, most efficacious against the varieties of tænia found in Switzerland.

PRISON DISCIPLINE.

Dr. Winslow, in introducing his subject, observed that the great problems of crime and prison discipline were occupying much public and legislative attention. They were themes which kings, eminent statesmen, renowned philanthropists, and great philosophers,—men whose names shed an unfading lustre on the epoch in which they flourished, have not thought unworthy of their study and speculation. He (Dr. Winslow) thought these subjects had a special claim upon the members of a liberal and enlightened Profession. As citizens of the State they, in common with every other thinking and educated section of the community, were much interested in the political, social, and moral condition of the people. But, apart altogether from their position as citizens, from their education, habits of thought, and specialty of instruction; as philosophers, trained by education to a course of rigid induction and patient reflection; as metaphysicians, conversant with the healthy and morbid phenomena of the human mind; as physiologists, fully competent to appreciate the condition of man, not merely as a material organization, but a complex organism, combining in mysterious union matter and spirit, and adapted for high and noble purposes, were they not, he asked, better fitted than any other class to grapple with the abstruse points involved in a successful elucidation of the question under discussion? They were to consider man in his social character, surrounded by good and evil influences, urging him on in a career either of virtue or vice; they had to view their fellow-creatures, not only in their physical aspect, but in their mental and moral relationship to society; to trace the first impulses to crime, the first yearnings towards vice; to weigh well the effects of certain organizations, physical and moral agents upon the mind, in originating, sustaining, and directing criminal and vicious inclinations; and subsequently it was their duty to estimate the amount of human suffering compatible with the due maintenance of the mental and physical health. Were they not, Dr. Winslow asked, entitled to be consulted on matters so grave and important? The medical Profession should show to the executive of this country a willingness and competency to enter the arena, and to discuss with the statesman and political economist the subject of prison discipline. Crime is said truly to have its primary root in the natural corruption of the human heart, and without Divine agency, vain indeed would be all human efforts to eradicate the first great cause of evil. It was, however, within the scope of human power to remove temptation to crime, to discourage its commission by judicious punishment; to attack its sources and bulwarks, and by reformation, discipline, and religious instruction, to open a road to those higher and

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holier influences which can alone change the heart and assure the permanence of morality. On the point of statistics, it was difficult to give any accurate information. The extent of the moral disease could not be estimated. Its magnitude defied all the efforts of the statician. It was generally maintained, that only a fractional portion of the offences committed were brought to justice, and that a large amount of concealed and unpunished offences eluded justice. After dwelling upon this point, Dr. Winslow observed, that, taking the last ten years, the following was the number of "committals" and "summary convictions":—

Committals	306,900
Summary convictions	597,600

To show the amount of depraving, demoralizing, criminal, and vicious influences at work in the metropolis alone, Dr. Winslow observed that the subjoined statement had been drawn up from official documents by persons whose veracity could be relied upon.

Children trained to crime	16,000
Receivers of stolen goods	5,000
Gamblers by profession	15,000
Beggars	25,000
Thieves, &c., ...	50,000
Drunkards found in the streets, and who could give no account of themselves ..	30,000
Habitual gin drinkers	180,000
Persons subsisting on profligacy	150,000

To give some idea of the importance of the subject, Dr. Winslow stated that Mr. Neison, the actuary, had calculated, supposing the ratio of crime as it existed in 1843 to extend over the period, that in 1883, 1,473,840 males above twelve years, (being about one quarter of the male population at that age) will have been in prison at some time during the forty years. Dr. Winslow then entered into a history of the legislation on the subject of prison reform, commencing from 1775 to 1840, when the Model Prison at Pentonville was built, and 1848, when the Portland Prison was erected. He thought, as rate-payers, they ought to be acquainted with the cost per cell of some of the recently built gaols. Milbank cost half a million sterling, Pentonville cost 85,000*l.*

Prisons.	Cost per Cell.
Pentonville	£162
Chelmsford	300
Reading	200
Birmingham	120
Leeds	132
Aylesbury	153
Winchester	156
Wakefield	125
York Castle	1200

There are four different systems of prison discipline. 1, old associated system; 2, mixed or classified system; 3, separate system; 4, silent system. Before entering upon a discussion of the old associated systems, Dr. Winslow referred to the law which was supposed to regulate the intercourse of individuals, viz., that when individuals whose prominent actions have been developed or strongly affected by the same vital impulse, the vital element of their respective actions will be increased in intensity by their intercourse. Under the associated system of treatment the prisons were dens of corruption, iniquity, and vice; schools of crime instead of "hospitals for moral diseases." Every system of debauchery, roguery, and refined vice was practised. After entering at length into this part of the subject, and illustrating it by examples, Dr. Winslow observed, that if the law had a right to *punish*, the State had no right to *corrupt*. Where unrestricted, unreserved, association prevailed among prisoners, such corruption took place, not as an accidental occurrence, but as a positive, direct, and necessary result. The associated system was said to be most appallingly destructive to the morals of the juvenile criminal. To meet this great evil, a system of classification was adopted, but without success. Dr. Winslow then entered at length into a history of the amelioration of the criminal code, and said, unceasing efforts had been made to adapt the criminal code to the spirit of the age, by infusing into penal legislation benevolent and enlightened views of crime and prison discipline. All undue severity was declared to be in opposition to the spirit of the constitutional law. After citing Bracton, Blackstone, Beccaria, and Buxton on this point, Dr. Winslow repudiated the idea of treating crime and criminals with undue leniency. The law should be merciful to the public as well as to the prisoner. The penal code should guarantee two things,—the almost certain *detection* of crime, and the absolute and speedy certainty of its *punishment*. Punishment must be reformative as well as *penal*. Mere naked correction hardens the heart, and does nothing to lessen the amount of crime, excepting by exciting a feeling of terror. The great object of penal legislation and punishment was the prevention of crime. Directly punishment ceased to be preventive and reformatory, it became vindictive and unjust. A class of prisoners was referred to who were hopelessly incorrigible and irreclaimable, their moral sense being utterly perverted and stultified; they were cases of *moral anæsthesia*. Such men exhibited only the animal instincts, recognised no distinction between right and wrong, *meum* and *tuum*. No amount of punishment, no degree of kindness, could make any impression on this class. Dr. Winslow gave some account of the introduction of the separate, solitary, and silent system in America, and afterwards in this country, France, Belgium, Prussia, &c.; and, after referring to the subject of prison discipline generally, gave as the result of the most careful examination of official Parliamentary returns, the following important facts, in reference to the influence of prisons on mortality, and the general and specific generation of disease. The known registered prison mortality is about 19 in 1000 cases. A number of prisoners are yearly discharged in consequence of their labouring under "incurable" disease, and, calculating that one-third of these cases terminate fatally, the prison mortality will be at the rate of 22½ per 1000.

General Mortality.—In the metropolis the annual mortality between the ages of 15 and 17 is $15\frac{8}{10}$ per 1000. The mortality varies in different prisons. At Springfield the mortality is $14\frac{8}{10}$ per 1000, whilst at Reading it is estimated at 41 per 1000. Taking the two great metropolitan prisons, the mortality stands thus:—

Pentonville	13½ per 1000.
Milbank	18½ „

Specific Mortality.—It has been computed that in the metropolis the mortality is at the rate—

Metropolis:	
Consumption	$4\frac{8}{10}$ per 1000
Scrofulous Diseases	$\frac{8}{100}$ „
In Prisons:	
Consumption	13½ per 1000
Scrofulous Diseases	$2\frac{8}{10}$ „

During the first thousand admissions into Pentonville Prison 11 died of consumption, and 14 prisoners were pardoned on that ground; which would be at the rate of 2½ per cent. It should be borne in mind, that at Pentonville the prisoners are picked and selected, and that none are admitted but those who are in the best state of mental and physical health. If they are not in a condition to undergo the kind of treatment to which they are subjected, they are rejected by the medical superintendent. We now proceed to the subject of insanity. In August, 1844, the number of pauper lunatics and idiots in England was ascertained to be

Males	7870
Females	9485
	17355

Of these, 390, (220 females, 170 males,) or 2·25 per cent., were under 16 years of age; leaving 7700 males and 9265 females above 16 years of age. Now, the estimated population of England at that time was—

July 1, 1844.—Males	8,097,000
Females	8,478,000
	16,575,000

Showing that, out of the entire male population 0·98 in 1000 were insane or idiotic, and 1·1 out of the female population. But as insanity rarely commences before the epoch of puberty, (16 years of age,) we must inquire how many males and females in the population, *after* that age, are insane. Now, the proportion of males at 16 years and over being 43·6 per cent. of the male population, it appears that the male population of England in August 1844, at 16 years and above, was 3,530,300. As in August 1844 it was ascertained that there were 7770 male pauper lunatics and idiots at 16 years and over, and the estimated male population at and above 16 years at that date was 3,530,300, it follows that, out of the entire male population at and above 16 years, 2·2 of the labouring population are insane or idiots. To render this calculation more precise, it is desirable to ascertain how many are congenital idiots and how many demented and insane. The return of 1844, which forms the basis of our calculation, makes the number of idiots larger than that of lunatics:—

Male Lunatics	3902
Male idiots	3970
	7872

But this proportion appears to us so improbable, that, as we have not at hand any means of rectifying it, we prefer leaving it as it is,

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and count the lunatics and idiots together. It is seen that we have calculated the proportion of male *pauper* lunatics and idiots at 16 years and over to the entire male population at that age, but it would be more precise to calculate the number from the *class* which furnished it. Now, the *class* which peoples our asylums, hospitals, and workhouses with what are termed pauper (that is poor) lunatics, is the working class,—that class which depends for its daily subsistence on its daily labour, and which has no other resource in sickness and adversity than public charity. What proportion, then, does the male *working* population bear to the entire male population? The classification of employments in the Census of 1841 enables us to answer this question satisfactorily, and shows that "the proportion of males not employed, either in manual labour or some other species of active occupation, was 106 in 1000 or 10·6 per cent."—(Porter, p. 65.) On subtracting this number (10·6 per cent.) from 3,530,300 (3,530,300 − 374,271) we have (in round numbers) 3,156,000 as the adult male working population in 1844. The number of adult pauper lunatics and idiots in England, in 1844, being 7,770, and the number of adult working men 3,156,000, it follows (as 3,156,000 : 7770 : : 1000 : 2·46) that 2·46 (say 2½) of adult working men in 1000 are insane or idiots. The cases of mental disorder in the Pentonville Prison, between January 1st, 1843, and June 30, 1850, were 42 out of 3050 prisoners, being 13·7 per 1000, or 5·6 (5⅝) greater than the average. At which rate (were it general) we should have, in 1851, near upon 50,000 male pauper lunatics in England alone! It must be remembered that Pentonville excludes idiots and men known to have been insane, being picked men in the prime of life (20 to 40). In Portland Prison, the number of cases of insanity has been 5 in 1450 prisoners, or 3·46 (say 3½) per 1000, being 1 per 1000 above the average. In Milbank: 34 in 18,520 adults, or 1·8 (1¼) per 1000; 9 in 2,024 juveniles, or 4·4 (4⅜) per 1000. Among the troops on home service the cases of insanity are stated by Dr. Balfour to be 0·73 (¼) per 1000 men.

Dr. Winslow left it to those who advocated the separate, silent, or solitary system of prison discipline, and who maintained that they were innocuous in their effects both on mind and body, to explain the above rather startling and incontrovertible facts. He readily admitted that a large volume of evidence existed in favour of the separate system. Men of great ability, undoubted veracity, of considerable experience, had investigated this question and reported strongly in its favour. They maintained that, under proper regulations, it did not deteriorate the general health, or generate specific diseases. But the statistical data upon which the preceding calculations had been made were opposed to the general evidence adduced. There was, undoubtedly, more than one class of prisoners whom we might, *à priori*, suppose would be seriously influenced by the separate, or cellular system of discipline. There were many prisoners whose minds would almost, as a matter of course, give way under the terrible ordeal to which they were exposed. Again, many criminals entered the prison strongly predisposed to affections of the mind, being the children of criminals,—the offspring of parents who have had crime, insanity, and idiocy in their families for many generations. Upon another class of prisoners the rigid prison discipline; the regularity of life; the absence from excitement; good food; the constant employment and religious instruction would have a tendency to calm, soothe, and tranquillize the mind, and thus avert insanity. Although he (Dr. Winslow) was of opinion that the separate system was better than any other mode that had been adopted, he, nevertheless, thought that it required most careful and vigilant watching; and perhaps some modifications might be introduced which would obviate the mischief both to the mind and body which it was supposed, and with good reason, to give rise to.

(It is unnecessary to observe, that the above abstract is but an outline of Dr. Winslow's paper, which occupied over three quarters of an hour in reading.)

The discussion of Dr. Forbes Winslow's paper took rather a singular turn. Some few of the speakers alluded to the reformation of the criminal, which, in the majority of instances, they appeared to regard as impossible. The prisons of England were mentioned in such terms as would lead one to believe that they were palaces and not prisons. The Reading Gaol was indeed so characterised. It was stated by one of the speakers, that a man who had left a London Union, on applying at this prison to know what he should have to do if he entered the gaol, was told he should have as much to eat as he liked, go to bed and get up when he liked, and do as much or as little as he pleased, play the fiddle, learn French, or amuse himself in gardening, if such were his good pleasure. But the major part of the speakers confined their remarks to the consideration of the nature of the punishment for crime; and, while they admitted it should be reformatory and not vindictive, the impression seemed to be, that it should be sharp and decisive. The dogma of the day, and we hope for all time, that judicial slaughter, or murder according to law, should be done away with, found unfortunately but few advocates. The statement made by Dr. Crisp, that if the punishment of death were abolished, Sarah Chesham would have been found guilty of the murder of her children, and thus her husband's life would have been saved, was met by the counter averment, that if the jury had not been led away by mawkish sensibility, the majesty of the law would have been vindicated, and thus, again, her husband's life would have been saved. The discussion was wholly unsuited for a medical society, and had but little bearing upon the paper that had been read, and was not creditable to the major part of the speakers. Recommendations for bloodshed and murder do not become the professors of the divine art of healing.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 21st inst.:—

Bickersteth, Edwin Robert, Liverpool.
Biggs, James Strange, Devizes, Wiltshire.
Earle, George, Beverley, Yorkshire.
Fuller, Thomas, Brighton, Sussex.
Gatty, William Henry, Market Harborough, Leicestershire.
Goodall, Charles William, Normanton-on-the-Woulds, Nottinghamshire.
Holman, Constantine, Hurstpierpoint, Sussex.
Morgan, Moses, Banbury, Oxfordshire.
Nairne, Charles, Lambeth.
Pettinger, George William, Sutton-upon-Trent, Nottinghamshire.
Rogers, William Andrews, Stanmore, Middlesex.

At the same meeting of the Court, Mr. Henry Wellings passed his examination for naval surgeon. This gentleman had previously been admitted a member of the College, his diploma bearing date August 3, 1846.

The College Charter.—The following resolutions of the Council of the Royal College of Surgeons were passed at their meeting, on the 19th and 24th inst., respecting the Charters and By-laws of the College, and to which they have requested the sanction of the Secretary of State for the Home Department:—

1. That in the opinion of this Council such parts of the charters and by-laws of the College as restrict the eligibility to the Council to Fellows residing and practising surgery within five miles by highway or road from the General Post Office in St. Martin's-le-Grand, should be abrogated.

2. That in the opinion of this Council such parts of the charters and by-laws of the College as restrict the eligibility to the Council to Fellows not having, during the five preceding years, practised midwifery or pharmacy, and require a certificate thereof by three Fellows, should be abrogated; and that instead thereof a certificate by three Fellows, and a declaration by himself, that the person nominated to be balloted for as a member of the Council does not practise as an apothecary, be required.

3. That it is the opinion of this Council that the medical qualifications of those about to engage in the practice of surgery, or in general practice, should be tested by the Royal College of Physicians.

4. That the Council of this College are prepared to form and superintend a Board of Examiners in midwifery, or to co-operate with the Royal College of Physicians in the institution of examinations for testing the qualifications of practitioners in midwifery.

Military Appointments.—18th regiment of Foot: Charles William Woodroffe, gent., to be assistant-surgeon; 74th Foot: Staff-Surgeon of the second class James Alexander Fraser, M.D., to be surgeon, vice Affleck, appointed on the staff; Ceylon Rifle Regiment: Assistant-surgeon John M'Gregor Augustus Thomas Croft, from the staff, to be assistant-surgeon, vice Rambaut, appointed to the staff; Hospital Staff: Surgeon Duncan Affleck, from the 74th Foot, to be staff-surgeon of the second class, vice Fraser,

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appointed to the 74th Foot; Assistant-Surgeon John Rambaut, from the Ceylon Rifle Regiment, to be assistant-surgeon to the forces, vice Croft, appointed to the Ceylon Rifle Regiment.

NAVAL APPOINTMENTS.—Surgeon Wm. Lindsay, M.D., Deputy Medical Inspector of the Naval Hospital at Malta, to be Deputy-Medical Inspector at the Royal Hospital, Haslar, vice Allan, deceased. Assistant-Surgeons Alexander Robertson (1841) and George B. Moore (1850) to the Queen, 116, flag-ship on the Mediterranean station; George T. Jones and Philip W. Govett (1850) to the Southampton, 50, flag-ship on the south-east coast of America station; Henry Slade (1847) to the Castor, 36, at the Cape of Good Hope station; James Sproule, acting, to the Victory, flag-ship at Portsmouth. Surgeon John Stewart, M.D. (1845), to be Deputy-Inspector at Malta Hospital, vice Lindsay, appointed to Haslar Hospital, Portsmouth; Surgeon-Superintendent John W. Elliott (1838) to the Bride, hired convict-ship; Acting Assistant-Surgeon John Angus, to the Impregnable, flag-ship at Devonport.

MEDICAL APPOINTMENTS AND VACANCIES.—The office of surgeon to the Westminster General Dispensary is vacant, by Mr. Ure's resignation. The house surgeoncy to the Newark Dispensary is also vacant; the salary is 90*l.* per annum, with coals, candles, house, and attendance. The candidates must be M.R.C.S L. and L.A.C. There are two vacancies for medical officers to the Bradford Union, Yorkshire, the rate of pay 5s. 6d. per case, 9d. each for successful vaccinations, 10s. each for midwifery cases, and the fees for surgical operations as fixed by the Poor-law Board. Dr. Borland has resigned the office of Physician to the Surrey Dispensary. The vacancy will be filled up on the 8th of May.

WESTMINSTER GENERAL DISPENSARY.—Mr. Henry Smith was on Thursday last elected to the office of Surgeon to this Institution, vacated by Mr. Ure, who has been appointed one of the Surgeons to St. Mary's Hospital.

HER MAJESTY'S LEVEE.—The following members of the Profession attended Her Majesty's Levee on the 26th.—Dr. Locock, Dr. Forbes Winslow, Dr. Roberts, Dr. Paris, and Mr. Tamplin. The following received the honour of presentation:—Dr. H. Melvin Balfour, by Sir W. Gibson Craig, Dr. James Reid, by the Earl of Morley, and Dr. Rennie, by the Marquis of Anglesey.

SIR CHARLES MANSFIELD CLARKE, BART.—The professional friends of this gentleman have determined to invite him to a public dinner, as a mark of their affectionate esteem and regard. They propose that the dinner should take place on the 28th of May, that being his birth-day, and that the price of the tickets should be twenty-five shillings. Those who wish to be present are requested to send their names, on or before the 1st of May, either to Dr. Locock, 26, Hertford-street, May-fair; to Mr. Propert, 6, New Cavendish-street, Portland-place; or to Mr. Hutchins, 25, Hanover-square.

ADULT DEAF AND DUMB ASYLUM.—The anniversary festival of this Association was held on the 26th inst., at the London Tavern, Lord Robert Grosvenor, M.P., in the chair. After the cloth was removed, and the usual loyal toasts had been drunk, the Chairman and other speakers dwelt upon the vast importance of an institution like the Adult Deaf and Dumb Asylum, which then claimed their attention and support. There were, in different parts of the country, several asylums where the deaf and dumb children were supported, educated, and trained in religious views; but, unless there existed also an institution to look after and watch over the adults of that unhappy class, they might fall into the hands of those who did not or would not understand them, lose the information and knowledge they had already acquired, be rendered cold and sullen in temper, and be deprived of all power of learning a trade, by which they may gain an honest subsistence. Of this several anecdotes were narrated in the course of the evening; and, to avoid this, the Chairman and other speakers urged the British public to contribute of their wealth, so that the Committee might be able to erect a commodious and serviceable house or asylum some short distance from town, where these unfortunates may be received, taught a trade, and imbued with religious views. They trusted in a while to render it self-supporting. It was stated, that there were 14,000 deaf and dumb in England and Wales, and, according to existing provision for them, only 2,000 of these could be accommodated in the asylums at present in existence. The Secretary, in announcing the amount collected after dinner, 162*l.*, expressed his regret that it fell far short of their hopes and expectations, and urgently requested every one present to render their Institution every assistance in their power. The amount received last year was 333*l.*

ASYLUM FOR IDIOTS.—The third anniversary dinner of this Institution took place on Wednesday evening, the Earl of Carlisle being chairman. It appears the Institution affords assistance to 188 patients, and that there are now 174 eligible cases, which cannot, owing to a deficiency of funds, be accommodated with any assistance. It was, moreover, the desire of the Committee to erect a suitable building for their accommodation much larger than either of those now in use, and for this purpose a building fund was opened. The secretary announced the sum of 2,500*l.* had been subscribed during the evening, to promote the objects of the charity.

OBITUARY.—On the 15th inst., at Cross Hayes, Malmesbury, Edmund Ormond Lyne, Esq., surgeon, in the 84th year of his age. At Lucea, Jamaica, on the 10th February, Edward Binns, M.D., the author of "The Anatomy of Sleep." On the 24th inst., at Adbaston, Staffordshire, George Augustus Campbell Bright, Esq., late Garrison-Surgeon, Bangalore. On the 7th inst., suddenly, off the coast of Sicily, on his passage from India, John Anderson, M.D., Assistant-Surgeon, H.M. 22nd Regt., medical attendant to Sir Charles Napier. On the 25th inst., John Owen Martin, Esq., Surgeon, R.N., at his residence, Lime Cottage, Lee, Kent.

HOME CIRCUIT.—Dr. Maddock, the proprietor of a lunatic asylum at Malling, and Mr. Perfect, the superintending surgeon, were recently indicted at Maidstone, at the instance of the Commissioners in Lunacy, for having made false entries in the books of the establishment, to the effect that no personal restraint had been used towards any of the patients during a certain period. They both pleaded guilty to one indictment, in which they were jointly charged with the offence; and Dr. Maddock pleaded guilty to a second indictment. Evidence was called to show the uniform kindness with which the patients were treated. It was alleged, on the part of the prosecution, that the reason for the restraint was the paucity of keepers. The learned judge, Baron Parke, in utter defiance of Mr. Gardiner Hill and Dr. Conolly, declared:—"There can be no doubt that restraint must be resorted to in some cases," upon which point we may have ere long a few words to say ourselves. Mr. Clarkson, for the prosecution, exhibited a pair of handcuffs and a body-strap, and asked a keeper if he had seen such in use. The answer was in the negative. Baron Parke immediately said, "Of course, under particular circumstances, such instruments must be made use of." Dr. Maddock was sentenced to pay two penalties of 50*l.* each, and Mr. Perfect was also fined 50*l.* The money was paid, and both gentlemen at once discharged. It appeared from the statement for the prosecution, that the keepers, male and female, were frequently employed in menial duties about the house, and were thus unable to attend properly to the duties for which they were expressly engaged. The proceeding was by indictment for misdemeanour, the punishment for which is fine and imprisonment. The latter was omitted.

DR. GULL was last Wednesday appointed Assistant-physician to Guy's Hospital by a general court of the treasurer and governors of the Institution.

GUY'S PHYSICAL SOCIETY.—The last meeting of this Society for the session 1850-51 took place on Saturday evening; Dr. Addison in the chair. Mr. William Odling read a paper on the nature and treatment of arsenical poisoning, before an excellent and very numerous attendance, from whom an interesting and instructive discussion was afterwards elicited. The author of the paper, having considered the essential characters of a poison, and the different modes in which poisons act, described briefly the effects of arsenic, and thence deduced indications for treatment; directing attention to the importance of physically removing any unabsorbed arsenic, which he believed to be best effected by using the stomach-pump, so as to wash out the viscus with such fluids as should mechanically suspend and chemically neutralise the poison. Having then detailed several experiments, he arrived at the conclusion, that a mixture of the permanganate of potassa, with acetate and hydrate of alumina, was the most suitable for the purpose.

MORTALITY IN THE METROPOLIS.—The aggravated rate of mortality in London, which marked the first two weeks of the current month, has prevailed without abatement in the period embraced by the present return. The deaths, which increased to 1247 in the beginning of March, and subsequently rose to 1401, amounted in the week ending last Saturday to 1412. Taking for comparison the ten corresponding weeks of 1841-50, it appears that the highest number was 1197, and occurred in 1845, (in a week when the mean temperature had fallen about ten degrees lower than usual,) and that the average mortality was 997. This average, if corrected according to the supposed rate of increase in the population, amounts to 1088; and the increase above it exhibited in last week's return is 324. The sickness which now prevails is common, as already shown, to all periods of life; but it deserves notice, that,

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whereas the total mortality returned in either of the last two weeks is nearly the same, the deaths of young persons under 15 years shews a decrease from 593 (in the week ending 15th March) to 566 last week, while those which occurred in the middle period of life rose from 442 to 456, and those in the still more advanced stage (or above 60 years) rose from 365 to 390. In the last week the deaths attributed to influenza—simply, or in conjunction with bronchitis, inflammation of the lungs, disease of the heart, or other malady—are 65; in the previous week they were 39; whilst the average of corresponding weeks does not exceed 8. The cases classed under bronchitis have decreased from 171 to 156, and are still at least double the average: those from pneumonia or inflammation of the lungs remain about 125, whilst the average does not exceed 87. The cases ascribed in the Table to asthma are 39, which is also more than usual; phthisis or consumption numbers 186 in both weeks, while the average, though corrected for increased population, is less than 150. Hooping-cough carried off 81 children, while the average number in corresponding weeks is 48; and croup 12. Amongst the epidemics, besides hooping-cough, that are incident to childhood, measles shows some disposition to prevail; but it is satisfactory to observe that small-pox is less fatal than it was a few weeks ago, and has declined to 16 deaths. Instances of the neglect of vaccination, or of determined opposition to it, are still subject of complaint on the part of those whose professional aid is required in the treatment of the disease.

Dr. R. G. Latham, late fellow of King's College, Cambridge, is delivering a course of lectures at the Liverpool Mechanics' Institution, on the Natural History and Geographical Distribution of the Human Race.

Liverpool.—Mr. Dunleevy has been appointed medical officer to one of the parishes of Liverpool, by a majority of eight against Mr. M'Clellan. His salary is 180*l.* per annum, and he is not allowed private practice.

North Dispensary, Liverpool.—There is a rumour that the North Dispensary is to be sold to the Church Building Society for a church. It is to be hoped that this will not take place, as the dispensary at present is situated in the poorest locality of Liverpool, and is of the greatest benefit to the sick poor.

Small-pox.—There appears to be an increase of small-pox in Liverpool. Last week it proved fatal to seven children, none of whom had been vaccinated, and also three adults. The medical officer of health has communicated with the Medical Committee of the select vestry on the subject of the increase.

An Aged Surgeon.—A surgeon in Wales, while giving evidence at a trial for murder by poisoning, stated that he had been in practice forty years before the law passed. As the Apothecaries' Act was passed in 1815, thirty-six years ago, he must now have been in practice seventy-six years, and, supposing he commenced as soon as he attained his majority, he would now be 97 years old. The deceased person, alleged to have been murdered, was herself 90 years of age.

Induction of Miscarriage.—Edwin Abington, aged 40, a potter's chemist, was recently tried before Mr. Justice Talfourd, at the Oxford Circuit, for using certain instruments, to cause Emma Williams to miscarry, in which he succeeded. It appeared from the evidence, that the prisoner, a married man with three children, and who has some reputation in the potteries as a pottery' chemist, had seduced the female, and, when he found she was pregnant, had given her medicines to cause abortion, but without success. Having failed in this, he persuaded her to submit to an operation. It is said that he used the speculum and a perforator, and contrived on the second attempt, to induce miscarriage with the instruments. His paramour afterwards informed her parents, who instituted these proceedings. These facts having been proved against him, a verdict of guilty was recorded against him, and the Judge, after commenting on the iniquity of the prisoner's conduct, sentenced him to ten years' transportation.

Marylebone Board of Guardians.—The inhabitants of this large parish, whether in office or not, seem determined to distinguish themselves by a crusade against the Medical Profession. We lately recorded the dismissal of a medical officer, under singular circumstances, and certain insulting speeches by a member of the Board, and we have now to make known an affair infinitely more shameful, not to the Board, but to an inhabitant of the parish. It appears that a female servant of a Mr. Arber, jun., having miscarried, became insane. Mr. Joseph certified that she was a lunatic, and ought to be confined. Mr. Arber, jun., not approving this, called at the workhouse to see Dr. Allen, who was ill, and he saw Mr. Hollingsworth, another of the medical officers, instead. At the meeting of the Board, he charged Mr. Hollingsworth with being so drunk, that he was unable to answer him distinctly, or to hold a pen. An investigation was made, and it was proved that Mr. Hollingsworth, so far from being a drunkard, was remarkably abstemious, and almost a teetotaller, and on the day in question had not taken more than a little beer at dinner. The complaint was accordingly dismissed, Mr. Arber, jun., persisting still that he was right. In the course of the inquiry, it appeared that, according to the gate-keeper's book, Dr. Allen, who was reported to be ill, had in fact not returned to the workhouse till midnight. This statement was disproved. Dr. Allen was really ill, and the gatekeeper had neglected his duty by going to bed and leaving a pauper in his place, by whom the false entry was made. The dismissal of the gate-keeper was ordered; after which the Board confirmed the alteration in the medical arrangements of the parish, as noticed in our last, notwithstanding the opposition of Mr. Bell and others.

New Prison at Wandsworth.—The surgeon to the new prison at Wandsworth is to have a salary of 200*l.* a year. His whole time is to be devoted to the prisoners, he not being permitted to engage in private practice.

Jamaica.—The inhabitants of this island in some respects resemble our corporate authorities. The cholera has ceased, even in the district of Hanover and in the Green Island; but, notwithstanding the fearful experience they have had, there is the same, or nearly the same, inattention as has hitherto prevailed as to their sanitary condition. Dr. Beveridge, R.N., who went to Jamaica early in January, for the purpose of rendering assistance during the prevalence of cholera, has returned, and reported, that Kingston, Spanish-town, and Port Royal were entirely free from the scourge, and that in all the other districts it was on the decline. Westmoreland had escaped, but he was fearful it would not long remain free from the cholera, notwithstanding the judicious sanitary precautions adopted. None of the Windward Islands had been visited by the cholera. In Barbadoes, there had been 16 sporadic cases, but the disease seems to be an annual visitor to that island. The Legislature of Barbadoes have granted 1000*l.* for the relief of the sufferers from cholera in Jamaica. Dr. Laidlaw and Dr. Gavin had arrived in that island, and had given considerable impetus to the sanitary measures and precautions against the epidemic. In Cayenne (French Guiana) yellow fever was still raging fearfully, taking many of its victims from among the higher classes.

New Crime.—Several valuable fox-hounds have been poisoned near Annersley, by eating articles with which strychnine had been mixed. It seems that, in order to destroy vermin, and shepherds' dogs,—at least it is so alleged,—this fearful poison has been liberally scattered over the ground in several districts. It may happen that human beings may become its victims, and we trust, therefore, that some stringent measures will be adopted to prevent the repetition of the practice. Although strychnine is mentioned as the poison used, that is scarcely probable from its high price; if the deleterious agent be of that family, it is more likely to be nux vomica. In either case, the practice should be arrested, and the perpetrators punished.

DEATHS *in the Metropolis for the week ending Saturday, March* 22, 1851.

Causes of Death.	March 22.				Sum of Ten Weeks.
	0	15	60	All Ages.	
All Causes	566	456	390	1412	9966
Specified Causes	564	456	390	1410	9919
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	209	50	62	321	1778
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	4	20	23	47	495
3. Tubercular Diseases.	66	148	14	228	1852
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	58	25	51	134	1251
5. Diseases of the Heart and Blood-vessels	...	33	20	53	320
6. Diseases of the Lungs, and of the other Organs of Respiration ...	136	104	110	350	1768
7. Diseases of the Stomach, Liver, and other Organs of Digestion ...	29	34	12	75	594
8. Diseases of the Kidneys, &c. ...	2	4	6	12	98
9. Childbirth, Diseases of the Uterus	...	8	1	9	112
10. Rheumatism, Diseases of the Bones, Joints, &c.	1	6	3	10	67
11. Diseases of the Skin, Cellular Tissue, &c.	2	1	...	3	11
12. Malformations	...	2	...	2	20
13. Premature Birth and Debility ...	16	...	...	16	146
14. Atrophy	23	2	1	25	148
15. Age	...	...	69	69	666
16. Sudden	6	7	11	24	178
17. Violence, Privation, Cold, and Intemperance	11	12	7	30	325
Causes not Specified	2	...	...	2	47

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1. Small-pox	16	Paralysis	24	Disease of Spleen	...
Measles	33	Delirium Tremens	2	8. Nephritis	1
Scarlatina	15	Chorea	...	Nephria or Bright's Disease	4
Hooping Cough	81	Epilepsy	5	Ischuria	1
Croup	12	Tetanus	...	Diabetes	...
Thrush	2	Insanity	4	Stone	...
Diarrhœa	18	Convulsions	36	Cystitis	...
Dysentery	1	Disease of Brain, &c.	17	Stricture of Urethra	2
Cholera	1	5. Pericarditis	4	Disease of Kidneys, &c.	4
Influenza	65	Aneurism	1	9. Paramenia	...
Purpura and Scurvy	1	Disease of Heart	43	Ovarian Dropsy	...
Ague	...	6. Laryngitis	8	Childbirth (see Metria)	7
Remittent Fever	1	Bronchitis	156	Disease of Joints, &c.	2
Infantile Fever	2	Pleurisy	6	10. Arthritis	1
Typhus	54	Pneumonia	126	Rheumatism	7
Metria or Puerperal Fever	4	Asthma	39	Disease of Joints, &c.	2
Rheumatic Fever	4	Disease of Lungs, &c.	15	11. Carbuncle	...
Erysipelas	9	7. Teething	15	Phlegmon	1
Syphilis	2	Quinsey	1	Disease of Skin, &c.	2
Noma or Canker	...	Gastritis	1	17. Intemperance	...
Hydrophobia	...	Enteritis	8	Privation of Food	1
2. Hæmorrhage	...	Peritonitis	5	Want of Breast-milk	4
Dropsy	25	Ascites	7	Neglect	...
Abscess	1	Ulceration (of Intestines, &c.)	...	Cold	...
Ulcer	2	Hernia	4	Poison	2
Fistula	...	Ileus	5	Burns and Scalds	4
Mortification	4	Intussusception	1	Hanging, &c.	4
Cancer	13	Stricture of Intestinal Canal	...	Drowning	2
Gout	2	Disease of Stomach, &c.	4	Fractures	12
3. Scrofula	9	Disease of Pancreas	2	Wounds	...
Tabes Mesenterica	14	Hepatitis	3	Other Violence	1
Phthisis (or Consumption)	166	Jaundice	4	All Violence	25
Hydrocephalus	39	Disease of Liver	15		
4. Cephalitis	19				
Apoplexy	28				

BIRTHS AND DEATHS.

	Births.		Deaths.		Births over Deaths.	
Males	824	1580	669	1412	155	168
Females	756		743		13	

The Deaths in the several Districts are as follow :—

Districts.	Population in 1841.	March 22, 1851.	Sum of Ten Weeks.
London	1948369	1412	9966
West	301189	236	1517
North	376568	282	1988
Central	274199	250	1832
East	393067	265	2044
South	503346	379	2585

TO CORRESPONDENTS.

A Second Year's Man may learn to draw teeth at any of the Hospitals.

Anti-Quackery.—If our Correspondent consults a regular surgeon, he is bound to pay him his fee, and that whether his treatment be successful or not. Although a harmless hobby, and most unmercifully overridden, the remedy in question has occasionally succeeded.

Stockport, next week.

[To the Editor of the Medical Times.]

Sir,—The Chard Board of Guardians having, in opposition to their contract with their medical officers, determined to abolish all extras, with the exception of vaccination and midwifery cases, at 10s. each, the medical officers refused to agree to their terms. Their unanimity, however, had one exception. Mr. Ware, of Chard, submitted to the order of the Guardians, and unreservedly accepted it. The others still hold out, and the districts are to be advertised. Time will show, but it is generally thought that none of the medical gentlemen in the neighbourhood will accept the Board's terms. Overstocked as this part is with medical men, this looks well for the dignity of the Profession; and the medical officers trust that no wolves will be found in the whole flock who will interfere between their just rights and the order of the Board.

I must apologise for not previously introducing the Board to you; but perhaps I may do so, with some of their little peculiar views of medical relief, another time.

I am, &c.,
One of the Medical Officers.

A Governor of St. Mary's Hospital.—Although for our own satisfaction we require the names of correspondents who, in this Journal, anonymously address the public, it is our rule not to divulge them.

A Correspondent, under the same *nom de guerre*, whose letter appeared in our last Number, seems to have been in error regarding Dr. Chambers. That gentleman had no relative a member of the Medical Committee.

Medical Autobiographies.—A Correspondent writes :—

"Death saw Dr. ———, he was writing his life :—
He'll not let him write much further ;
For Death, who strikes whenever he likes,
Is jealous of all 'self-murther.'"

[To the Editor of the Medical Times.]

Sir,—In a late Number of your Journal there appeared some good remarks under the head of "Advice to Students," in which a Christian benevolence for their welfare appeared conspicuous.

The University of Edinburgh possesses at present more than one illustrious professor, whose walk on earth it might prove advantageous for the student to imitate; but alas! in too many instances he possesses no adviser; he is under no collegiate discipline; but turned loose upon the city, is left to follow good or evil, according to his own propensities, without any interruption from the College in whose album he has inscribed his name and profession, or from the Professor in whose roll he has written his name.

Would it not be for the student's welfare if our Alisons, our Goodsirs, our Millers, and our Balfours would endeavour to enforce upon him their own noble moral qualities, which, independent of their scientific renown, have endeared them to all who study beneath their care?

Our professors are not ignorant of the many temptations of the northern metropolis; they are not ignorant that their renown throughout the halls of science has called many one from a distant home—the Indian from his southern clime, and the American from the frozen regions of the north; they know that many a parent is anxiously awaiting the return of his child, who, caught by the dazzling glory that at present surrounds this school, has left his native home in all the ardour of youth, to return with the M.D. of Edinburgh as a future passport to the Profession. In too many instances are both child and parents' hopes blasted by the demon sin.

It might then be indeed beneficial were our teachers to establish some sort of a collegiate discipline—the cap and gown dress, for instance; an attendance at public worship on the Lord's-day, or whatever the "Senatus Academicus" might deem necessary to secure the student's present good and promote his eternal welfare.

Hoping you will give these remarks a space in your Journal,

I am, &c., An Edinburgh Student.

P.S. Professor Balfour brought forward a motion some years ago for the introduction of a collegiate dress, but failed in carrying it. Why not attempt it again? I am sure the majority of the University would support him.

Of course these observations apply merely to the Medical Faculty.

A Note of Admiration (!)—*Nil admirari!* said the wise Roman. "Coffee and its adulteration;" "reprinted from the 'Lancet' of Jan. 4, 1851," and "published at the 'Lancet' Office," "price One Penny," has been extensively and gratuitously circulated. But we cannot inform our Correspondent whether, in its present form, it owes its origin to the Editor of that Journal and the "Commissioner," or to some advertising grocer. At any rate,

"The earth hath bubbles as the water hath :
And this is one of them."

[To the Editor of the Medical Times.]

Sir,—I consider that any invention for the alleviation of human suffering ought to be chronicled in your much-read valuable pages. A patient of mine, about twelve days ago, in a fit of mania, put both legs into the fire, and was not found until he had burnt them very badly (this was in the country, before he was placed under my care). There are large sloughs slowly separating the tendo achillis, bare in one leg for several inches, and you may suppose intense pain and suffering, only relieved by large doses of morphia. Having found one of Hooper's Water Cushions the means of curing a large slough on the nates of an old lady of seventy-three, who was paralyzed a short time back, and who has now nearly recovered her side, I thought I would try the cushion under the poor maniac's sloughing legs, which could not be kept lying long in one position without great agony, the heat and hardness of the bed conducing, no doubt, to this. I need hardly say that I was quite delighted with the result, my patient exclaiming, this is indeed comfortable, my legs are floating.

A great advantage connected with Hooper's cushion is, that you may pour the water in at any temperature, so that you do not chill where the vitality is low; again, iced water can be applied in affections of the brain, or anywhere you may require cold. The signal benefit my patient has received has induced me to lay before you my opinion, for the information of those of the profession who may not have seen or heard of Mr. Hooper's invention.

I am, &c., Wm. Thorn, M.D., &c.

87, Harrow-road, March 20, 1850.

We have to inform Mr. Clutterbuck, that the published sheets of Wardrop (as far as we have been able to obtain copy from the author), may be had on application to our printers.

We can this week but briefly acknowledge the receipt of communications from Dr. Robert Knox, F.R.S.E.; Mr. Wilde, of Dublin; Dr. Thomas Stone; Dr. Radcliffe, of Henrietta-street; Dr. Snow Beck, of Langham-place; Dr. Rooke, of the Seaman's Hospital; Dr. Philip Ayres, of Wandsworth-road; Dr. Letheby, of the London Hospital, and Rodney-terrace, Bow-road; The Secretaries of the London Medical Society: Dr. Davies, of Seaford; Mr. Hutchins, of Hanover-square; Mr. Gibbons, of Liverpool; Dr. T. K. Chambers, of Hill-street; C.; Mr. Chaldecott, of St. Thomas's Hospital; Mr. Milton, of Jewin-street; Dr. Greenhill, of Hastings; Dr. Lightfoot, of Arundel House, Fulham; Mr. Fletcher; Mr. Wiblin, of Southampton; Mr. John Grove, of Wandsworth; Mr. George King, of Bath; Dr. Merrei, of Manchester; Observer; "One who wishes to Insure his Life;" Dr. Merryweather, of Whitby; The Secretary of the Adult Deaf and Dumb Institution; Philo-Medicus; Dr. George Blackmer, of New York; A Subscriber to the Grant Testimonial; Mr. Sydney Crocker, Secretary and Actuary to the New Equitable Life Assurance Company; Emeritus; J. W. Trimmer; Mr. Clutterbuck, Newbiggin; Anti-Quackery; Stockport; Chard Union Medical Officer; A Note of Admiration (!); Dr. Thom.

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ORIGINAL LECTURES.

LECTURES
ON
DIGESTION, RESPIRATION, AND SECRETION,
GIVEN AT THE ROYAL INSTITUTION, TO THE MEMBERS AND TO THE PUPILS OF ST. GEORGE'S HOSPITAL.

By H. BENCE JONES, M.D., F.R.S.,
Physician to St. George's Hospital.

(Continued from page 309.)

ON FLESH.

In my last lecture, gentlemen, I showed you that plants collect inorganic substances, for the purpose of forming organic compounds, of which their structure is composed. I stated to you, not only the chemical law, but the equally important mechanical law regarding the food of plants. You will remember, that the chemical law was, that around the plant every element which exists in the plant must be present; and that the mechanical law was, that these elements (must not only be present, but) must be in a fine state of division. The object of my present lecture is to show that the same four classes of substances which exist in plants, exist also in animals, viz., the albuminous substance, the non-albuminous organic matter, the salts, and the water. Whether you take milk, or meat, or vegetables, the same four classes of substances will be found in the one as in the other. I shall also show you, that, in the food of animals, the same mechanical law must be satisfied as we found was necessary to be satisfied in the case of the food of plants; that is, that it must be capable of a fine state of division, otherwise it cannot serve as the food of man.

First, then, the chemical law is, that all the elements of which the body is composed are present in the food. To establish this, we clearly must know what is the chemical composition of the animal. It is difficult, though it has been done with very small animals; and it is unnecessary to take the ultimate elements and proximate constituents of the animal as a whole. Instead of taking a whole field for the analysis of a soil, we take only one portion—a portion which fairly represents the whole field, and from this we arrive at the composition of the field as a whole. So also as regards the animal. I shall take for this hour flesh, as the representative of the body. I might—and I shall on another occasion—take blood also as the representative of the body, and show that it likewise contains the same four constituents which we find in the flesh.

A piece of flesh or of muscle may be deprived of its water, as you see here, by drying; and water is one of the four classes of substances existing in vegetables. It may also be deprived of its fat, another of these classes. In addition to this, we find, if we burn the flesh, that there remains an ash, (the composition of which I shall mention in a few minutes,) forming a third class of substances existing in vegetables, and throughout all nature; and, lastly, we get from the flesh the highly compound albuminous substance, the analysis of which closely approximates to the analysis which you see in this Table:—

NITROGENOUS ORGANIC SUBSTANCES, ANIMAL AND VEGETABLE.

	Albumen.	Fibrine.	Glutin.	Caseine.	Legumin.	Protein.
C	548	546	552	550	541	550
H	71	70	72	71	71	71
O	212	220	218	217	226	219
N	159	157	158	158	158	160
S	7	4	4	4	4	0
P	3	3	3	0	0	0

These, then, are the four substances which we find in every portion of flesh that comes before us. The determination of the actual proportion of the elements in the flesh—the making, as it is called, an organic analysis of the flesh, burning it in a combustion tube, and oxidizing it to the last degree, is of the least possible importance. Yet, when we so subject flesh to an organic analysis, we always find that carbon, oxygen, hydrogen, and nitrogen are present. The proportions vary with the quantity of fat; they vary also with the quantity of water, and, of course, with the quantity of ashes present. You have all seen the above numbers given in many physiological books representing the ultimate elements of muscle. Such an analysis, I repeat, is of the very slightest importance; still, it is necessary to dwell upon it for one moment. It is no more than if you were to ask me for a description of this house, and I were to tell you the proportions which the different materials—the bricks, mortar, wood, and stone—bore to one another. You will see, that from such a statement you would get but little knowledge of this house: you would merely have the proportions, and these might be as true for a very small house as for a very large one. The relative proportions, then, of the different constituents of the body is of comparatively little moment. It is some knowledge, and, as far as it goes, it is good knowledge; but it is by no means that knowledge with which we can be at all satisfied. Of far more value is it to take the different parts, and determine what the various reactions and changes which you can effect upon them may be.

As the simplest case, let us see, first, what is the action of water upon muscle or upon flesh. Professor Liebig, in his work on Flesh,—that work which is the most admirable specimen of the importance of chemistry, in giving us a knowledge of animal organic substances,—has furnished us with an excellent statement of the action of water upon flesh:—

In 1000 Parts of Beef.

Soluble in Cold Water ..	60	Coagulated by Boiling ..	29·5
		In Solution	30·5
Insoluble in Cold Water	170	Fibre Vessels, &c.	164·0
		Gelatine	6·0
Fat	20		
Water	750		
	1000		

If we take 1000 parts of beef, treated with cold water, we find that only 60 parts are soluble. (A specimen of beef so treated was exhibited.) The residue is made up thus:—Insoluble in cold water, 170; fatty matter, which might be got out by treating it with ether, 20; water, which might be separated by drying it to the last degree, 750. This is the simplest reaction I can bring before you. We have seen that 60 parts only out of 1000 are soluble in cold water; now, how are these 60 parts made up? Of what do they consist? If I heated this cold extract of beef up to boiling, I should find that nearly 30 parts separated, and 30 remained in solution. Let us look now to the composition and nature of the part which is insoluble in cold water. We know that it contains fat; and we find, also, if we treat it with boiling water, that we can get a quantity of gelatine. Out of 1000 parts of muscle, the quantity of gelatine will be 6 parts only. We come, then, to this conclusion regarding the substances that exist in meat: that if they are treated with boiling water,—in fact, if I try to make beef-tea, I should get the substances which are soluble in boiling water, clearly not that which is coagulated at a boiling temperature; that would be lost, whilst the residue, which is soluble in cold water, would remain in solution still; the gelatine, which is soluble in hot water, and not in cold, would be dissolved also; the fibre and the vessels which exist in the flesh would remain undissolved. Thus you would get no more than 36½ parts out of 1000 in solution by boiling, and all the rest would consist of fat, of fibre, and of coagulated substances. (The residue of a quantity of beef-tea was exhibited.)

Out of 1000 parts of beef I get no more than 36 parts by treating it with boiling water. Six of these are gelatine; what may the other 30 consist of? It is found that they consist of many different substances; but before I enter minutely into a description of them, I must say a few words more regarding the albuminous principle and the fibrous principle. The fibre of the muscle can be separated either by cold water, which gives it free from albumen; or by hot water, which gives it mixed with albumen, coagulated by the boiling temperature. This albumen is very similar to that which exists in plants. The fibrous matter has been called the fibrine of muscle; and this name fibrine, or fibre, has led to a very considerable confusion regarding these substances. Being called fibrine, or fibre, it has been thought to be similar to, and indeed identical with, the fibrine that exists in the blood. I have here a specimen of the fibrine as obtained from the blood, and here the fibre from a beef-steak, washed until it is free from colour. In a late paper, Professor Liebig concludes that the two kinds of

fibrine are not identical, and, indeed, are not similar bodies at all. The fibrine, or muscle-fibre, (for fibrine is a bad name to give it,) differs from blood-fibrine in being very soluble indeed in dilute hydrochloric acid. Water, containing only one-tenth per cent. of hydrochloric acid, quickly dissolves this muscle-fibre; but it acts very slowly, if at all, upon blood-fibrine. Here is clearly a great difference, an important difference, for the purposes of digestion. After the action of dilute acid on the fibre of the muscle, it may be filtered slowly. (Specimen exhibited.) When this is filtered, the liquid, when neutralized, is coagulated to a thick white gelatinous mass, easily soluble in excess of alkali. The precipitate also is soluble in lime-water, and when boiled it yields a coagulum like the solution of albumen. In these respects the action of the flesh-fibre differs much from the action of the blood-fibrine. The muscular fibre is found in very unequal quantities in the flesh of different animals. The composition of the flesh-fibre differs, indeed, but slightly from that of the blood-fibrine. The muscle-fibre approaches more nearly to the analysis of albumen. It does not contain quite so much nitrogen as the blood-fibrine. Blood-fibrine contains more nitrogen than muscle-fibre. In these important respects the two substances are decidedly different.

Another very peculiar and interesting substance of an albuminous character is, by boiling, separated from the muscular fibre. I find that the hot solution of meat does not consist merely of gelatine and salts, but that it also contains distinctly dissolved in it a portion of albuminous substance, closely approximating to the constitution of albumen, but very different in its chemical reaction. I have here a portion sufficient for my purpose; the flesh has been simply boiled, and then filtered. It may be seen that the substance which filters through, when tested as one ordinarily tests for albumen, will give no apparent indication of the presence of albumen at all. I may heat it to the boiling temperature, and add nitric acid to it, and I get no precipitate—which you know is totally different from the ordinary action of albumen; but after boiling, with the addition of nitric acid, the liquid becomes more yellow—it decidedly changes in colour—and then, if you cool it, a distinct precipitate takes place, which bears the closest resemblance to the substance known as the tritoxide of protein of Mülder, or the *albuminose* of the French chemists—this substance I met with in large quantities in a case of disease, and it occurs also in small quantities in inflammatory blood and in purulent matter. This substance may be easily detected. It differs from the albumen in being soluble in boiling water, not being precipitable in nitric acid in a boiling state, but yielding a precipitate when cool, which redissolves when heated. This forms one of the nutritious substances of the hot extract of beef, or any other flesh. This albuminous substance contains more oxygen than is found in albumen, and perhaps it is best called albuminose. If beef-tea be kept boiling for a considerable time, this soluble albumen undergoes a change, and passes into an insoluble substance, which forms a slight scum on the surface of the boiling fluid.

Then there is another most beautiful substance, which exists in the cold or hot solution of muscle. This was discovered by Cheverul, and he named it "kreatin." For this substance we have to thank, in these latter days, Professor Liebig. Berzelius himself could not find it. Professor Liebig has now rediscovered it, by acting on large quantities of meat. I have here probably between five and six ounces of kreatin, belonging to Dr. Gregory of Edinburgh, through whose kindness I am enabled to show them to you now. This substance can be obtained from any flesh, if you use quantities large enough for the purpose. These specimens are, perhaps, the most magnificent that have been ever formed; as much as three or four hundred pounds of flesh was actually employed to produce them.

Kreatin, in composition and properties, is closely related to the alkaloids.

Kreatin	C_8	H_9	N_3	O_4	
Kreatinine	C_8	H_7	N_3	O_2	
Sarkosin	C_6	H_7	N	O_4	
Iosinic Acid....	C_{10}	H_9	N_2	O_{10}	HO
Inosit	C_{12}	H_{12}		O_{12}	$+ {}_4HO$
Lactic Acid	C_6	H_6		O_5	HO

One part of kreatin is said to exist in 1400 parts of flesh. More kreatin is said to be found in thin flesh than in fat meat. Fish (the source whence Dr. Gregory has obtained these specimens) contains most kreatin. Six pounds of human flesh gave to Schlossberger, a German chemist, thirty-one grains of kreatin. In Paris, very lately, a chemist told me that he used a whole horse, with the hope of getting a magnificent specimen of kreatin; but, unfortunately, he did not obtain a grain—probably from using too great quantities of flesh at once, which led to the decomposition of the whole substance. Dr. Gregory tells me, under similar circumstances, that the flesh he used, if standing a long time—if the process was not conducted briskly, and brought soon to a termination—gave a strong urinous and fæcal odour. The mode of preparing this kreatin is a simple one. The flesh is finely divided, and then pressed with water, and the coagulable matters are separated by severely heating them up to boiling. The fluid is then filtered, and the albumen thus separated. Salts are precipitated by baryta, which are separated by filtration. The liquid is then put in flat dishes to crystallize, and kreatin is the result. This, at the present time, is, perhaps, one of the most interesting substances which organic chemistry has made known to us. We find that kreatin is a substance which undergoes very peculiar and very remarkable changes. If, for instance, we treat it with strong acids, which can take away water from it, it gives an alkaloid,—a substance which has been named by Professor Liebig *kreatinine*. If I take from kreatin two equivalents of water, I get kreatinine as the resultant,—a body which has an alkaline reaction, and which, in fact, acts as an alkaloid. If I treat kreatin with baryta-water, two equivalents of water are taken up, instead of kreatinine I get the body well known to you as *urea*, which forms the most remarkable constituent of urine, and a body which Professor Liebig calls *sarkosin*, another crystallizable principle. If I treat the sarkosin in a similar way, I get lactic acid, ammonia, and water; or as shown thus:—

$$\left.\begin{array}{l}\text{Kreatin} \\ C_8 H_9 N_3 O_4\end{array}\right\} \left.\begin{array}{l}-2\ \text{Water} \\ -2\ HO\end{array}\right\} = \left\{\begin{array}{l}\text{Kreatinine} \\ C_8 H_7 N_3 O_2\end{array}\right.$$

$$\left.\begin{array}{l}\text{Kreatin} \\ C_8 H_9 N_3 O_4\end{array}\right\} \left.\begin{array}{l}+2\ \text{Water} \\ +2\ HO\end{array}\right\} = \left\{\begin{array}{l}\text{Urea} \quad + \quad \text{Sarkosin} \\ C_2 H_4 N_2 O_2 + C_6 H_7 N O_4\end{array}\right.$$

$$\left.\begin{array}{l}\text{Sarkosin} \\ C_6 H_7 N O_4\end{array}\right\} \left.\begin{array}{l}+2\ \text{Water} \\ +2\ HO\end{array}\right\} = \left\{\begin{array}{l}\text{Lactic Acid} + \text{Ammonia} + \text{Water} \\ C_6 H_6 O_5 + N H_3 + HO\end{array}\right.$$

All these substances can be produced by the changes which this kreatin can be made to undergo. It appears to me that this kreatin is not, as Professor Liebig thinks, a nutritive substance serving for the nourishment of the body; but that it represents the first substance in the descending scale,—the first substance formed before the muscle passes out, (after having served the purposes of life,) by the kidneys, the skin, or the lungs. It seems to be the first of those substances—of which I shall have to give you a long, long series before I end these lectures—which result, by lower and lower degrees, from the highly complex albuminous principles which exist in the different tissues of the body. Possibly I shall not make myself very clear on this point, until I come to a future lecture on the excretions. At present, however, you must take this as my opinion, that I consider kreatin is not a substance which is nutritious, but is that substance which is first formed in the process of the changes which take place in the muscle previously to its being ultimately removed to enable fresh muscle to be formed in its place to serve the purposes of life. It closely resembles *thein* and *caffein*, of which I have an analysis here for the purpose of comparison:—

Thein and Caffein.

Carbon	498	$= C_8 H_5 O_2 N_2$
Hydrogen.....	53	
Oxygen	160	
Nitrogen	289	
	1000	

It is not identical in composition, but it approximates sufficiently to justify my bringing the resemblance before you. Thein and caffein, which are produced out of tea and coffee, are identical in composition. It would be most interesting to determine the effect of kreatin as a medicine. Lehman states that thein, when taken, produced on himself palpitation, increased quickness, irregularity, and intermission of the pulse, oppression of the chest, pain in the head, loss of sleep, congestion of brain, and even symptoms of delirium; and this when it was taken in small doses of

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not more than from two to ten grains. But from other experiments I have heard of, in England at least, this substance does not seem to produce such potent effects.

If the mother liquid out of which the kreatin crystallizes in flat dishes, is mixed with alcohol, it becomes milky, and a substance known as *inosinate of potash* is obtained. In the flesh, this inosinic acid exists with kreatin; and it is possible that these are the substances out of which urea and uric acid are formed. Dr. Gregory tells me that he obtained the inosinic acid from the flesh of fowls chiefly, and especially from the turkey. At present he cannot detect it in beef. He doubts, indeed, its presence in beef or horse-flesh. Thus much, then, for the nitrogenous substances which exist in flesh. I must not dwell longer upon these in this lecture.

I must now pass on to the second class of substances, called *non-nitrogenous*. Professor Scheerer of Wurzburg, has shown that flesh always contains a peculiar sugar, not capable of fermentation; and this sugar he has called, from its origin, *inosit*. It differs from ordinary sugar, in having more water. I have given its analysis above. It very closely resembles in composition sugar of milk. The relation of muscle-sugar and milk-sugar I shall have occasion to bring before you, especially in my next lecture. The sugar which exists in muscle, if the muscle has been left standing for a long time, undergoes a change. Berzelius first, and latterly Professor Liebig, stated generally of all flesh, that it has a decidedly acid reaction. This acid reaction it is not at all difficult to make clear to you. If I test this liquid which is pressed out of beef, you will see it shows a strong acid reaction. (Experiment.) You may say it is coloured with blood, and that you see more of the red blood than of the acid reaction. This a fair objection, but it is not a true one; for if I take flesh which contains no red blood, I find the same reaction as in the flesh which is coloured. (An experiment was made on the flesh of a sole.) This sole has been dead a few hours; and this is of some importance, for I find that when flesh is perfectly fresh—when, for instance, in an amputation case, a limb has been removed, and a portion of the muscle immediately examined, I do not find the acid reaction so apparent, as it is after the muscle has been removed for some time. If I take this fish which was living a few minutes ago, and examine it in the same way, the reaction will not be anything like so strong as in the former case. The acidity goes on increasing from the time of the animal's death, until putrefaction begins; very probably the acidity is closely related to Professor Scheerer's sugar, and this sugar undergoes changes from the death of the muscle, and ultimately furnishes the highly acid substance, *lactic acid*. This lactic acid, on which the acid reaction depends, was long since stated by Berzelius to be an ingredient in the flesh; this was doubted by Professor Liebig, who, however, now has proved that it is present in large quantities. It exists in the solution of beef-tea; it is soluble in water. You see here some lactic of lime obtained from muscle; it is as distinct as that which is obtained from milk which has become acid. The two substances differ in some properties. Lactate of lime from muscle contains less water than lactate of lime from milk; they differ also in the solubility of the salts. The composition of the two lactic acids is the same. We have then sugar and lactic acid present in the flesh; and, in addition to these, we have fat, which is present in every portion of flesh. Scheerer, moreover, has obtained from flesh the same volatile fatty acids as I shall have occasion to show you can be obtained from butter.

Having brought to your notice the nitrogenous and non-nitrogenous organic substances, I must for a few moments dwell upon the *salts* of the flesh.

	Ash in 10000 Parts of		
	Flesh.	Blood.	Milk.
Chloride Potassium ..	..	..	1418
Chloride Sodium ..	147	3616	474
Soda	486	2708	696
Potassa	3995	1066	2346
Lime	180	177	1734
Magnesia	388	73	220
Oxide of iron ..	100	684	47
Phosphoric Acid ..	4674	721	2804
Sulphuric „ ..	30	42	5
Carbonic „ ..	..	794	250
Silica	..	119	6

You see here the salts in flesh and in blood; I might also have shown, by way of comparison, the salts present in vegetables, which you would find are very nearly the same. The inorganic or mineral constituents in the flesh are very nearly the same as those present in the plant. There is a remarkable quantity of potash existing in the muscle; there is iron also present, magnesia, lime, phosphate of lime, and phosphate of potash in considerable quantities. Professor Liebig has pointed out the remarkable fact, that very much more potash exists in the muscle than in the blood, and that much more soda exists in the blood than in the muscle.

Lastly I come to the *water* present in flesh.

100 Parts of				Water.
Beef	contain	..	..	74
Veal	„	..	..	75
Mutton	„	..	..	71
Pork	„	..	..	76
Chicken	„	..	..	73
Cod	„	..	..	79
Haddock	„	..	..	82
Sole	„	..	..	79

In addition to these four great classes of substances there are of course present in the flesh the elements of the blood which are circulating through the vessels; there are also the elements of the nervous matter existing in the nerves of the muscle, and there is the cellular tissue which binds the whole together. If, instead of the flesh, I had taken the nervous or bony structure, though the proportions would have been different, yet the same four classes of substances would have been present. Take the nerve for a moment. We have in it a quantity of fatty matter, albuminous matter, a quantity of salts, and a quantity of water. In my lecture on the blood, I shall show you that the same classes are present there also. What is true of the flesh and blood is true of every part of the body. The building materials of which we are made do not consist of only one substance. The plastic substance is not the albuminous matter alone; the albuminous substance is not the only plastic element of the body. Each portion consists of albuminous substance, fatty matter, salts, and water. Of these together, though under different arrangements and varying quantities, the flesh, blood, nerves, bones, and tissues of the animal are composed. The albuminous substance is not more nor less necessary than any other substance among the building materials of the body. The water, the salts, and the fatty matter, are just as essential, and the building could not take place without them. Even if water was absent, the flesh could not be built, for there would be no circulation through it, there would be change taking place; in fact, without water, muscle could not exist. If animals, like vegetables, could from the more simple compounds prepare the higher compounds of which their textures consist, then the animal creation would not be dependent on the vegetable creation for its support. But man cannot live on carbonic acid, water, ammonia, and salts; he requires that all the elements existing in his body should be brought to him in a collected and combined state—collected and combined to proximate compounds; and it is in these compounds that the chemical and mechanical laws which are true as regards the food of plants must hold good for animals; that is, that every substance existing in the body must be present in the food, and not only so, but must be capable of being divided as minutely as possible. If man feeds on animal food, from what I have been saying of flesh, it is quite clear that the chemical law of food is satisfied, as every substance of which the man is made is there. But if the mechanical law is not complete, the food is not fit for him. The great object of cookery is, or rather should be, to fulfil most completely this mechanical law. Cookery is not requisite for the purpose of bringing together the different classes of proximate bodies of which I have been speaking, for they are united by nature; but cookery is of the greatest use in promoting fineness of division; art can there do more than nature. The importance of cookery cannot be overrated. The most refractory substance can, by art, be made capable of being finely divided. In rendering substances minutely divisible, mechanical action is highly important. Not unfrequently chemical action may also be employed to assist this mechanical force. It will be necessary, therefore, to consider what chemical changes the proximate constituents of food can undergo out of the body, and then we shall better understand the changes that take place in the food when it enters into the body. But previously, in my next lecture, I must take milk, the universal food, which requires no cookery whatever; and I must show you how the chemical

and the mechanical laws are satisfied in the food of young animals. We shall find that here also, as in flesh, all the elements of which the body is composed are present, just as we saw that all the elements of which the plant was composed had to be present in its food to enable it to grow.

Let me once more mention, that there is this important difference between the food of plants and the food of animals,—that the plant can live on binary compounds, whilst the animal requires complex organic mixtures. All the elements must be present in the binary compounds on which the plant feeds, and all the elements of the animal must be present in the organic substances of which its food consists. The same mechanical law also must be fulfilled in both, for, in order to enter into the organic structure, the food of animals and plants must be finely divided. Without this it cannot enter into the circulation of man, and, even if it could, unless it was capable of being finely divided, it would be impossible for it to form the structures of the body, or, after serving the purposes of life in them, to pass out of the body and enable growth and repair to take place.

LECTURES ON HISTOLOGY.

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS, LONDON.

By J. T. QUEKETT, Esq.,
Assistant-Conservator of the Hunterian Museum.

[Continued from page 311.]

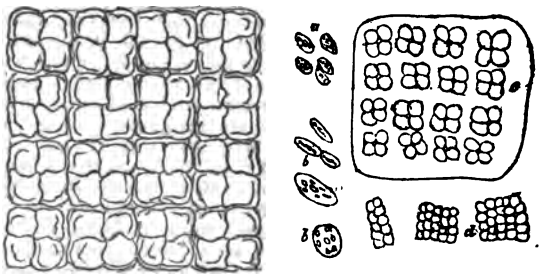
WOODY TISSUE.

When speaking in the previous demonstration of the various kinds of woody tissue employed in the Arts, I mentioned ordinary flax, China grass, and hemp, and stated that, from the peculiarly hard nature of the outer coating of each fibre of the latter, it was rendered very brittle when twisted. I then remarked that linen at all times was more difficult to work, and even to take colouring-matter, than cotton, which might, perhaps, be accounted for by the density or toughness of the woody fibre; I have since learned that a process has lately been recommended by M. Claussen for subdividing the elementary fibres of flax by boiling and steeping, after they have been hackled and bleached as usual, and specimens prepared in this way have been made to imitate not only cotton, but silk and wool. I have now, through the kindness of the Rev. Mr. Dale, the opportunity of passing round for your inspection samples of flax which have undergone these processes; and in one you will see that the fibre has been reduced to the fineness and suppleness of cotton, in another to the texture of silk, and in a third to that of wool. When, however, these specimens are examined microscopically, the woody fibres will, in most cases, be found entire; some indeed are ruptured nearly transversely, and others partially separated into finer fibres; the process by which the change in the fibres was effected is subsequent to that of the hackling and steeping. There is, however, another plan which is calculated to answer the same purpose, viz., to commence with the stems in their raw state, and without any steeping or bleaching to reduce the fibres to the smallest conceivable size by mechanical means; the specimens I now send round are thus prepared; and should the inventor, Mr. Donovan, succeed, the linen made by this process will no doubt be more durable than that manufactured by any other means now in use.

Before proceeding to complete the subject of woody or ligneous tissue, I must ask your indulgence for still further digressing, since I have it in my power to show an object of great practical importance to you as medical men, but one not of very frequent occurrence. There is a disease of the stomach characterised by a very constant train of symptoms, viz., dilatation with flatulent distension, a burning or scalding sensation referred to the epigastrium and upwards in the course of the œsophagus, and the frequent vomiting (several times daily) of a clear fluid with or without the admixture of a small quantity of brown, frothy matter like yeast. This fluid is excessively acid, as described by the patient, and as shown by litmus paper, and within an hour or two after ejection, it begins to ferment as distinctly and rapidly as new beer wort, and a head is formed which cannot be distinguished by the eye or nose from yeast. When this is placed under a microscope it is seen to be mainly composed of little cubical masses of a greenish colour, quartered by crucial lines, and these quarters again divided and subdivided by similar markings. These bodies were first noticed by Professor John Goodsir, and by him described in the *Edinburgh Medical and Surgical Journal* in 1842, under the name of "*Sarcina ventriculi*," and he conjectured that they were of the nature of parasitic vegetables of low organization they much resemble the infusorial animalcules depicted by Ehrenberg, under the name of *Gonium pectorale*, so called from an ornament worn on the breast of the Jewish high priest. Mr. Busk has since written of them in the *Microscopical Journal* as occurring in two cases under his care in the Dreadnought hospital ship, one of which was a case of rupture of the diaphragm; and my late brother met with and described a case at one of the meetings of the Microscopical Society; but in this instance the species was different from any before noticed.

For the examples I have now the satisfaction of showing you I am indebted to Mr. Monckton; they were brought by him from King's College Hospital; in which institution I learn there are, at present, two of these extraordinary cases under the care of Dr. Budd, and hence I doubt not we shall in due time be enlightened as to the most effective plan of treatment. That which I think has been chiefly followed in such cases, is the administration of remedies calculated to destroy vegetable life, such as creosote, the essential oils, &c.; but I fear that this disease usually has a fatal termination.

A *Fig.* 29. B



In this object, a portion of which is represented in *Fig.* 29, A, you will observe some scores of these bundles of Sarcinæ in the field at the same time, and in this next specimen you may observe, in the neighbourhood of these fungi, a great number of small oval cells, somewhat like the torulæ of the yeast plant, these being probably an earlier stage of the Sarcinæ, in fact their spores. A few of these cells are shown at *a*, in *Fig.* 29, B, and those constituting the infusorial animal before alluded to as the *Gonium pectorale* at *c d*. The colour of the Gonium is always a bright green, and in the fresh state they may be seen moving rapidly across the field of the microscope. As they form the nearest approach to the Sarcina, a representation has been given. There are, of course, in the vomited matters many other substances detected under the microscope, such as fat, starch, muscular fibre; but with these we have nothing to do at present.

Whilst speaking of the *Sarcina ventriculi* as probably a further stage of growth of those minute cells or spores found in such abundance in the vomited matter, I mentioned the marked resemblance of these to the Torula of the yeast plant, and the *T. diabetica*, which is found in diabetic urine that has been kept in a sufficiently warm place for a few days, in order that fermentation may commence. I will now take the opportunity, before I proceed further, of showing you a specimen of Torula diabetica, which, although previously described and represented in *fig.* 5, C., in connexion with T. cerevisiæ, is nevertheless, for the sake of comparison, again figured by *b* in *Fig.* 29, B. These oval bodies are said to be spores, not perfect plants, but they rapidly become such as fermentation proceeds, and the observer may watch their development under his microscope. The first step in this growth is the development of new cells occurring in rows or linear groups, as if strung together, and this, you may observe, has already taken place in some parts of the specimen I have just shown you, for which I am indebted to my friend Mr. Wood, of St. Bartholomew's Hospital. Other species of Torulæ are not unfrequently met with in urine, a short time even after it has been passed. A gentleman who about two years since was in the habit of attending these lectures, found them in tolerable abundance within two hours after his urine had been voided.

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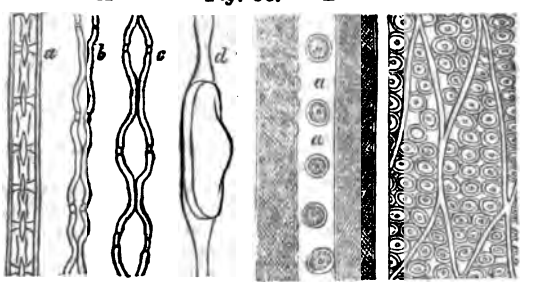
To return to woody fibres. I have said that they are elongated cells, generally more or less pointed at both extremities, and solidified by internal deposit. They are, however, in some cases, as in flax and hemp, marked with knobs or transverse lines at short intervals; in some plants, especially those in which the woody fibres are short, as the clematis and elder, as shown in *Fig.* 28, A, they are marked with pores, or little dots, the internal deposit being at these spots deficient; these are called simple pores; but in the coniferæ, as represented in *Fig.* 28, B, the pores are surrounded by a larger circular ring, which gives the whole the appearance of a circular cell, with a small central nucleus; these are called bordered pores, and were well seen in the specimens of coniferous wood shown at our last meeting. The true nature and mode of formation of these bordered pores were for many years a subject of dispute among botanists; by some persons they have been supposed to be glands; others have considered them to be either thick or thin places in the membranous cell-wall of the fibre, while some few have stated that there is a hole in the centre of each disc communicating with a similar hole in a neighbouring fibre. It is now, however, ascertained, by improved means of investigation, that these bordered pores are not confined to one fibre, but are formed between two contiguous to each other, and always exist in greatest numbers on those sides of the woody fibres parallel to the medullary rays, as will presently be shown. They are hollow, their shape is bi-convex, as represented by *c* in *Fig.* 30, A.; and in their centre is either a small circular or oval spot. In some plants there is one row of pores, in others two, and in some few instances, as shown by C in *Fig.* 30, B, the entire fibre is full of them. In order to get a satisfactory view of these pores, a tangental section of the wood must be made; you will then find, as in this specimen of deal—portions of two contiguous fibres of which are represented by *b c*, in *Fig.* 30, A—that between these fibres there are certain oval spaces, which have in their centre a pore extending nearly through the entire thickness of the wall of the fibre, but closed with membrane on its outer margin; these spaces are hollow cavities, and in the centre of each is seen the pore. Some specimens of fossil coniferous wood, which I shall presently show you, have been of great value in confirming the correctness of the statement just made. Some years since, a specimen of fossil

A *Fig.* 30. B C

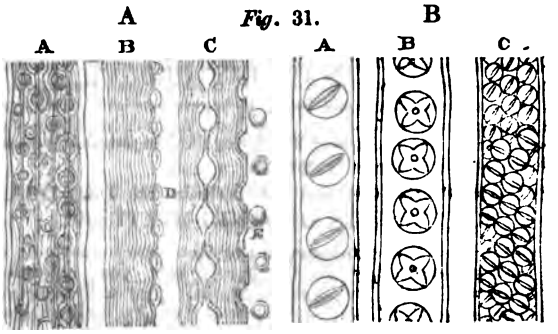


wood from Fredericksburgh, in Virginia, was sent to this country to my late brother by Professor Bailey of the Military Academy of West Point on the Hudson, which, on microscopic examination, was found to be coniferous, the woody tissue not only exhibiting the bordered pores, but, in addition, numerous minute spiral fibres, as shown in *Fig.* 30, B. In some parts of the field, disc-like bodies, such as here shown at *a a* in the same figure, were lying loose; they were precisely similar to the pores of the fibres. On carefully examining the surfaces of some of the fibres, similar discs were found projecting from the outer surface, as represented in *Fig.* 30, B. It then turned out that these discs were in reality casts in silica of the bordered pores; in short, the biconcave cavities shown by *b c* in *Fig.* 30, A, were in the fossil filled with silica. Thus the description given of their true nature, after careful observation, was fully confirmed by the fossil specimen.

In some of the orchidaceous plants, as those of the genus *Oncidium*, and especially in *Aporum anceps*, small globular bodies are found projecting from the woody fibres, as shown by D and E in *Fig.* 31, A. These, like the fossil specimens, are sometimes found loose, but, as represented by A, the places they occupied are cavities in the wall of the fibre.

In some cases, as in *Cycas revoluta*, the central spot or pore is not round, but more or less oval, and is inclined at an angle of 45° to the length of the fibre; and the pores lying on one surface have the direction of the central spot at right-angles to that on the surface beneath; the outer or bordering lines correspond; but if the thin part of a fibre be examined, it will often happen that both the upper and under surface will be in focus at the same time, and then the appearance of a cell with a crucial nucleus, as shown by *c* in *Fig.* 31, B, will be presented. This fact is also more strikingly exemplified in *Salisburia adiantifolia*, the pores being of much larger size. Portions of two of the woody fibres of this plant are represented by *a b* in *Fig.* 31, B. At *a* the central pore on one surface of the fibre is shown, and at *b* the two opposite sides of the same fibre, in which the crucial appearance is most strikingly exemplified. At *a*, in *Fig.* 30, A, is shown a section through two contiguous woody fibres of the same plant, by which it will be seen how these peculiar pores are formed.

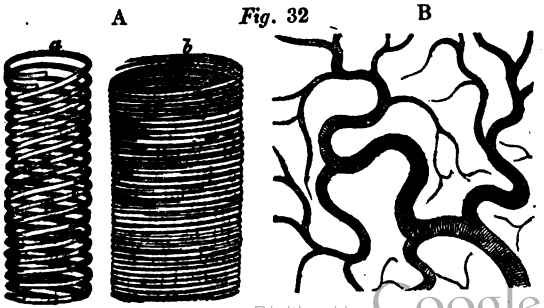
A *Fig.* 31. B



Vascular Tissue.—This tissue, bearing as it does the same relation to the growing portion of the plant as the vascular system of animals does to their general organism, is of course one of, if not *the*, most important to the plant itself. It forms no exception to the general rule with which we started, viz., that all the textures originate in cells, for these vessels are but elongated cells joined end to end, and ultimately communicating with each other; their walls are in most cases supported either by a complete spiral fibre or some modification of it, hence the name by which they oftentimes are known, viz., spiral vessels; the ancients called them "tracheæ," from their resemblance to the ramifying air tubes of insects; nor is the analogy far fetched, since in either case the tube is kept patulous by an elastic spiral coil of fibre, which has a tendency to unrol itself when freed from confinement within the vessel; and, moreover, in old dry parts of the plant in which their function has ceased to be required, they are found to contain, as in insects, only air, but in the young and growing parts they contain fluid, and floating Raphides are found in abundance in the spiral vessels of the young branches or shoots of the common grape vine. They differ, however, from the air-vessels of insects in that the spiral vessels of vegetables are almost always straight, and rarely branch.

I will now illustrate what I have been describing, and will commence by displaying the tracheæ of a water beetle, *Dyticus marginalis*. In a portion of one of these, as shown by *b*, in *Fig.* 32, A, you will remark the presence of a spiral fibre within a membranous tube, and for the sake of comparison I have caused a portion of a spiral vessel of a plant to be represented by the side of a trachea, viz., by *a* in *Fig.* 32, A, and it will be seen that the principal point of

A *Fig.* 32 B



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distinction consists in the large size of the fibre in the vegetable over that of the animal, but that in both the fibre is within the membranous tube. In this specimen, as shown in *Fig.* 32, B, the tracheæ are displayed ramifying on the coats of the stomach of a bee; and I should here explain that these tubes serve the purpose in insects of carrying the oxygenizing agent to the blood or nutritious fluid, which in them is distributed through the system generally, and not in vessels.

LECTURES
ON
THE CHEMISTRY OF THE POISONS.

By H. LETHEBY, M.B.,

Lecturer on Chemistry and Toxicology in the Medical College of the London Hospital.

(Continued from page 201.)

Modes of detecting Phosphorus in Organic Mixtures, as in the Contents of the Stomach and Alimentary Canal, and in the Urine.—Proportions of Phosphorus nominally present in Food, &c.—Impurities of Commercial Phosphorus, as Arsenic, Copper, Lead, Iron, Bismuth, Antimony, Sulphur, Carbon, &c.—Methods of Discovering these Impurities.—Processes to be adopted for Purifying Phosphorus.

RECOGNITION OF PHOSPHORUS IN THE DEAD BODY AND IN ORGANIC MIXTURES.

In seeking for this substance in the alimentary canal, or in the matters vomited, you will naturally turn your attention to the odour of the suspected material; you will ascertain whether the evolved gases are white and smoky, and whether they have the power of darkening a strip of paper moistened with starch and iodide of potassium, of reddening litmus, and of discolouring a solution of nitrate of silver; all of which characters were commented on and illustrated in my last lecture. You will seek, moreover, for fatty matters containing phosphorus, and for small particles of the poison in a solid state. Again, you will examine the suspected material in a dark room, in order to discover whether it be phosphorescent or not; and, to facilitate the results of the inquiry, it is proper that you should pour the liquid out into a very shallow vessel, spread the thicker portion of it over the bottom of a plate, so as to bring its solid contents freely into contact with the atmosphere, by which means any particles of phosphorus contained in the suspected matter will be discovered by their luminosity. Lastly, it may happen that the solid portions are sufficiently charged with the poison to yield a white smoke, or even to burn with a bright yellow light, if they are gently heated, in a thin layer, on the end of an iron spatula, or in the bottom of a saucer. Should this happen to be the case, the products of the combustion may be collected in an inverted glass funnel, dissolved in a very small quantity of water, and tested with solutions of lime and nitrate of silver for phosphoric acid. According to the researches of Professor Orfila, the ignition of phosphorus and the evolution of white fumes is evident, even when the mixture does not contain more than the one-thousandth of its weight of the poison. If solid particles of phosphorus are visible in the suspected matters, they ought to be removed, transferred to a test tube containing a little water, then melted into one lump by the application of heat, weighed, and kept as conclusive proof of the nature of the case. A small quantity of alcohol poured upon the phosphorus will dissolve off enough of it to establish its identity by the peculiar re-actions which it manifests with lead, nitrate of silver, sulphate of copper, and bichloride of mercury, all of which have been referred to under the fifth head of the tests for this poison.

Having proceeded thus far with our inquiry, the contents of the stomach or alimentary canal are, if necessary, to be brought into a very liquid state by the addition of water, then introduced into a retort, and distilled to dryness, the volatile products being collected into a flask containing about two drachms of strong nitric acid; by this means a great portion of the phosphorus will be removed; and, on its condensing in the receiver, it will be converted into phosphoric acid. The liquid so obtained is to be evaporated to dryness, the residue weighed and tested for phosphoric acid.

Finally, that which remains in the retort is to be drenched with its own bulk of dilute nitro-muriatic acid treated in the manner described under the head of *Quantitative Analysis of Phosphorus*, and the amount of the poison estimated by converting it into pyrophosphate of magnesia.

Not content with an examination of the matters contained in the alimentary canal, you are also to institute an inquiry into the composition of the urine; for it is highly probable that a large portion of the poison will exist therein in the form of phosphate of soda, triple phosphate of magnesia and ammonia, or phosphate of lime. To determine this point, you are to collect the urine, acidulate it, if there be a precipitate, with muriatic acid, treat it with a solution of sulphate of magnesia, and then with liquor ammoniæ until the liquid is strongly alkaline. The precipitate which will be immediately produced, consists of the ammonio-phosphate of magnesia. This is to be collected, dried, ignited, and weighed.

In conducting these researches, you are to remember that phosphorus is a constant constituent of the animal solids and fluids, and that it is likewise found in various articles of food. If you do not bear these facts in mind, you will be very likely to arrive at erroneous conclusions concerning the criminal administration of this substance. But, in order that you may not be led into the commission of so unpardonable an error, I will remind you that flesh contains about 0·1 per cent. of phosphates; blood about 0·06; liquid albumen, as white of egg, 0·2; milk about 0·25; cheese 0·06; peas 0·3; potatoes 0·06; and bread 0·1; or, if these substances are examined in the dry state, the animal compounds may be made to yield from 1·5 to 2 per cent of pyrophosphate of magnesia, and the vegetable from 0·5 to 1. Again, it is right to remember that bones furnish from 20 to 60 per cent. of phosphate of lime, and the dry residue of urine from 7 to 10 per cent. of the alkaline and earthy salts of this acid,—quantities which are equal in the former case to from 14 to 44 per cent of the pyrophosphate, and in the latter from 4 to 7 per cent. of this salt.

Of all the characters to which I have just alluded, those furnished by the luminosity of the suspected matters, by the combustion of them when they are slightly heated, and by the products of their distillation are by far the most conclusive, though the others are at all times valuable as accessory evidence.

IMPURITIES IN COMMERCIAL PHOSPHORUS.

At the present time very little care is bestowed on the preparation of this substance, for it is not only brought into contact with all kinds of metallic impurities during its manufacture, but it is actually distilled from compounds which contain lead, arsenic, antimony, &c. This is a matter of some importance to you, because the phosphoric acid of the London Pharmacopœia is in most cases prepared from crude phosphorus.

Among the impurities which have been recognised in this substance are the following:—

(a) *Arsenic*, which is doubtless derived from the oil of vitriol made use of in the first step of the process, viz., in the decomposition of bone earth. This poison was first detected in phosphorus by Herts and Bärwald; more recently it has been discovered therein by Wittstock, Dalk, Wackenroder, Martius, and Dupasquier. The proportion of the poison present varies in different cases, but Wittstock has found as much as 0·76 per cent. of it in one sample of crude phosphorus. I cannot inform you concerning the precise state in which the metal exists therein, though there is every reason for believing that it is in the form of a phosphuret equally diffused throughout the whole mass, as the impurity is not to be detected by any alteration in the sensible characters of the phosphorus, though it is said that the arsenic sometimes gives it a smoky look. Nor is it to be recognised by fusion, by distillation, or by the solution of it in oil, ether, or sulphuret of carbon; but if the phosphorus is allowed to oxidise in moist air, or in a vessel only partly filled with water, it yields two acids, viz., phosphorous and arsenious, both of which are dissolved in the water in which the phosphorus is placed, and then on boiling the liquid it deposits a black precipitate of metallic arsenic. This re-action is brought about by the affinity which phosphorous acid has for oxygen; hence it is that the arsenious acid is reduced and the metal set free. But the best mode of recognising the presence of this poison is to cut the phosphorus into small pieces, or to granulate it by shaking it until it is cold in

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a phial containing a quantity of very hot urine, then to digest it for a few days in twice its weight of a mixture composed of one part of nitric acid and two of water, (the density of this mixture ought to be about 1100.) In the course of that time the arsenic will, in great part, be oxidised by the aqua-fortis, and converted into arsenious acid. On pouring off the supernatant liquor, evaporating it to dryness, redissolving it in dilute muriatic acid, and then treating it with sulphuretted hydrogen gas, a yellow precipitate of orpiment and per sulphuret of arsenicum will be slowly deposited. If the aqua-fortis has not been used in excess, a turbidness of the liquid will occur at a certain stage of the evaporation. This takes place in the way before mentioned, and is due to the precipitation of arsenic from the reducing power of the phosphorous acid present. This, however, may be guarded against by using an excess of nitric acid, or by adding a few drops of aqua-regia to the liquid, after it has been removed from the undissolved phosphorus. To be quite certain that arsenic is contained in the liquid, it is to be fully saturated with hydro-sulphuric acid, and set aside for twenty-four hours at least, in order that the yellow sulphuret of the metal may be formed and deposited.

Again, the existence of arsenic in the liquid may be proved by boiling it for a few minutes with a strip of clean copper, in the way proposed by Reinsch. If arsenic be present it will be deposited on the surface of the copper, in the form of a dull, grey, semi-metallic coating; and, on drying the metal, and heating it in a closed glass tube, black and white rings of the sublimed metal and its oxide will be produced. The objection, however, to the use of this process is, that the residual liquor may become charged with copper, and so rendered unfit for futher examination. Another mode of analysis may be resorted to if more convenient, viz., to acidulate the acid liquor with sulphuric acid, then to introduce it into Marsh's apparatus with a little granulated zinc, and to test the evolved gas for arsenuretted hydrogen, after the manner recommended in my eighth lecture.

(b) *Copper* has been discovered in phosphorus by many chemists,—Wittstock and Ozann have particularly referred to its presence therein,—and, as far as my own investigations have gone, it appears to be a very common impurity. Doubtless it is derived from the copper moulds in which the phosphorus is cast, or from the copper vessels in which it is received during the process of distillation. You will easily recognise the presence of this metal by exposing the phosphorus to a stream of sulphuretted hydrogen, or by dropping it into a solution of the gas, by which means the surface of the cylinders will be rendered of a dark brown or black colour, in consequence of the formation of a sulphuret of the metal; or the copper may sometimes be discovered by the dark appearance which the sticks of phosphorus assume when they are exposed to the combined influence of air and water. This discoloration is, in all probability, due to the action of ozone on the phosphuret of copper contained in the mass, or it may be dependent on the formation of phosphuretted hydrogen, and the reaction of this gas on the contained copper. Both of these tests are, however, open to much doubt, inasmuch as the presence of lead, iron, and some other metals, would produce a similar discoloration. To determine the point, therefore, with certainty, it is necessary to dissolve the phosphorus, as in the last case, in dilute nitric acid; to evaporate the liquid to dryness; to redissolve the residue in a small quantity of distilled water, and then to expose it to the influence of a piece of clean iron wire. If copper be present the metal will soon be precipitated on the surface of the iron, giving the latter a bright coppery appearance. This test may be resorted to after the removal of arsenic from the liquid by means of sulphuretted hydrogen; but under these circumstances the fluid must first be evaporated to dryness and the residue redissolved in a very little water before it is exposed to the action of the clean iron: if this precaution is not taken, the muriatic acid which is present will interfere with the proper results.

(c) Other metals, as *lead*, *bismuth*, *iron*, and *antimony*, have likewise been discovered in the crude phosphorus of commerce. Wittstock has recognised the last-named metal in great abundance in a sample of French phosphorus which had a greyish coating instead of the usual white opaque one. It also presented a black colour on the recently fractured surface, and a dull red appearance when it was viewed by transmitted light. On treating this substance with sulphuret of carbon it deposited a large quantity of black scales of sulphuret of antimony. It is not easy to say what was the source of this impurity, though it is probable that it was introduced as an adulterating agent. Lead and bismuth are, doubtless, derived from the salts employed in the preparation of phosphorus, or from the vessels in which it is received or cast. The presence of these metals is known by the insoluble white precipitate which remains after the evaporation of the nitric solution of this substance.

(d) *Sulphur*, which is frequently met with in phosphorus, owes its existence therein to the sulphates which are so commonly associated with the superphosphates from which the commercial article is obtained. The presence of this impurity is not a matter of much moment, excepting, perhaps, that it renders the phosphorus exceedingly brittle. It is said, indeed, that the 1-200th part of sulphur is sufficient to produce a very marked influence upon it in this respect.

(e) *Carbon* is occasionally present in phosphorus, not only in a finely-divided or mechanical state, when it is easily recognised by the naked eye, but also in the form of a phosphuret or sulphuret of the element. Some of the older chemists were of opinion that the yellow colour of phosphorus was, in most cases, due to the presence of carbon, or of a phosphuret of this body. Thenard even asserted that, however well or often the phosphorus was distilled, it invariably contained a portion of this impurity; but, as far as modern researches have gone, this does not appear to be the case. When carbon is present in phosphorus it is derived from the charcoal employed in the preparation of this substance, and its existence therein is not of any great importance to the consumer.

(f) *The red oxide of phosphorus* is invariably present. According to Gmelin, it is the substance which gives to phosphorus its yellow or pale-red colour; and it may be removed by acting upon the phosphorus with sulphuret of carbon, in which liquid the impurity is not soluble. It may also be removed by dilute nitric acid, or by a mixture of chromate of potash and oil of vitriol, both of which yield oxygen to it, and thus render it soluble.

PURIFICATION OF PHOSPHORUS.

You will rarely have occasion for the use of pure phosphorus—never, perhaps, excepting when you are making phosphuretted oil, or the etherial tincture of phosphorus, for medicinal purposes. Under these circumstances, it may be necessary to employ a perfectly pure article; but, when phosphorus is resorted to for the manufacture of phosphoric acid, as directed in the London Pharmacopœia, it is better and easier to purify the acid itself than the phosphorus from which it is obtained. Nevertheless, I may inform you that the mechanical impurities, such as carbon, sulphuret of antimony, dirt, &c., may be removed by melting the phosphorus under water, and straining it through chamois leather. This was the plan originally proposed by Woulfe, and it is still practised by the manufacturers of this substance. The other impurities can only be got rid of by sacrificing a large portion of the product. The method which I shall propose to you is founded on the experiments made by Trommsdorf, Mussin, Paschin, Pelletier, Bärwald, and Wittstock, all of whom have turned their attention to this subject.

You are to proceed as follows:—First granulate the phosphorus, or rather divide it into a very fine powder, by shaking it in a well-corked bottle, with a quantity of hot urine; the urine must be made hot enough to liquefy the phosphorus, and the agitation must be continued until the liquid is cold. Set the bottle aside for a short time, in order that the phosphorus may be deposited. When this has happened it will present the form of a very fine powder. Carefully decant the supernatant liquor, and supply its place with dilute nitric acid, composed of two parts of water and one of acid, (the density of this mixture ought to be about 1100.) Remove the cork from the bottle altogether, and allow the acid to act on the phosphorus for about a week or so, shaking the vessel every now and then, in order that the liquid may be brought into contact with every one of the particles, and that the bubbles of gas which slowly form may escape. At the termination of this time most of the impurities will be removed, but the process cannot be considered as complete until only about 1 6th of the original phosphorus remains undissolved. When this is the case, the acid solution is to be poured off; the residual phosphorus washed with distilled water, and then liquefied by means of heat. On cooling the water, the phosphorus will set into a pale yellow semi-transparent mass.

If it be desirable to obtain this mass perfectly free from the red oxide which colours it, the object may be accomplished by melting it under liquor ammoniæ, or by fusing it in a concentrated solution of bichromate of potash, mixed with a small quantity of oil of vitriol, and to facilitate the operation it is better to agitate the hot mixture for a few minutes, and then to allow it to stand at rest, in order that the phosphorus may subside and collect into one mass at the bottom of the vessel. Should the phosphorus retain its fluid state after the liquid has cooled, it may be solidified by touching it with some pointed body, as a piece of glass, or by dropping in a particle of solid phosphorus.

The solution which results from the action of nitric acid on phosphorus may be employed in the preparation of phosphoric acid; but before it is evaporated it is advisable to add a small quantity of aqua-regia, otherwise a large portion of the phosphorus may be evolved as phosphuretted hydrogen.

Dr. Henry and some others have recommended that phosphorus should be purified by distillation, but the process is not a safe one in the hands of the inexperienced, and moreover it is not a perfect one, for the volatile impurities, such as arsenic, phosphuret of carbon, &c., will still remain in the product.

Lastly, sulphuret of carbon cannot well be employed for this purpose, by reason of the fact, that most of the impurities are, like phosphorus, soluble in that liquid.

ORIGINAL COMMUNICATIONS.

COMMENTARIES ON CONVULSIVE DISEASES.

By CHARLES BLAND RADCLIFFE, M.B.,
Licentiate of the Royal College of Physicians.

(Continued from page 291.)

II.—OF THE CONVULSIVE ATTACK.

1.—Beginning with the more simple and familiar phenomena of morbid muscular action, it is not difficult to obtain some light as to their efficient causes. Every one knows, indeed, how the teeth will chatter, and the limbs shake, when he undresses in a cold room, or goes out without sufficient clothing on a winter's day, and how much more likely these symptoms are to happen when faint and hungry from want of food. Every one knows, also, how sudden grief or alarm will of themselves bring on these movements, and how joy will nerve the frame, and make it indifferent alike to the want of food and the inclemency of the weather. In short, it is a matter of ordinary experience, that this occasional trembling of delicate persons is induced by causes which depress the system.

Nor is it less certain that elderly people are more affected by tremulousness in winter than in summer, or when kept waiting for a meal, or when startled or distressed in any manner; so that in this case also the movements would seem to betoken the withdrawal of a stimulus.

Again, it is difficult to suppose that the muscles are more vigorously excited in the moment of dissolution, or in the state which follows, than during life; so that we seem obliged to conclude that death struggles and *rigor mortis*, like the more insignificant movements of which we have just spoken, are determined by some lowering of the vital energy.

2.—The appearance of any one during an attack of hysteric convulsion betrays no excitement, but, on the contrary, it is rather the death-like paleness of a person in a swoon. This, indeed, is what might be expected from the nature of the causes which determined the fit, for these, without exception, appear to be those which depress the system. It is altogether different with those paroxysms of hysteria, in which there is raving and violent volitional action of the muscles, for here the system evidences high excitement, and the determining causes are such as are likely to induce this state; but when the attack is marked by convulsion, I believe we may seek in vain for these signs and causes of activity.

The appearance of any one during a paroxysm of chorea is equally against the hypothesis of excitement, and so also are the circumstances which lead to this paroxysm. Indeed, with few if any exceptions, we find that the immediate antecedent has been some exposure to cold, some sudden fright or unexpected trouble, or some abstinence from flesh and wine, the abstinence itself being often the reflex of a fit of mistaken asceticism.

We find, indeed,—so far as we may judge from the imperfect evidence which belongs to this part of our subject,—that whatever induces or aggravates ordinary tremulousness, would seem to have a like influence in hysteric convulsion or choraic agitation.

3. In an epileptic attack, the pulse at first is weak, irregular, and much slower than natural, and in some instances the action of the heart is suspended altogether. The face also is pale or dusky, the skin cold and clammy, and not unfrequently there is shuddering, with a marked disposition to faintness, or actual fainting. Then the symptoms undergo a rapid change, and the countenance becomes livid and injected, the eyes are bloodshot and half-starting out of the sockets, and the integuments of the face, head, and neck distended in a very remarkable manner; and, lastly, the blueness and turgidity of this asphyxiated state pass off, and the circulation again exhibits the signs of collapse and prostration.

In this attack we find, also, that the convulsion is less violent and protracted in persons who approach most nearly to the sanguine habit, than in those in whom the face is pale and sallow, and the pulse small and weak; and this is further borne out by the fact, that the succeeding collapse is in direct relation to the severity of the paroxysm.

There are, undoubtedly, fits in which there is high vascular action; but these are of an apoplectic character, where coma, and not convulsion, is the dominant symptom. So far, indeed, from this being the case in pure epilepsy, it would appear as if the left side of the heart were inactive, and the arterial system almost empty,—if, at least, we are to judge from the extreme feebleness or complete suspension of the pulse at the wrist. Moreover, I am satisfied, from repeated observations, that the tumultuous throbbing in the neck, which is often cited as strong pulsation in the carotids, is in reality the reflex of the action of the right ventricle in the jugulars and neighbouring veins, the reflex itself being due to that half-open state of the auriculo-ventricular valve which is brought about by the asphyxia before mentioned.

When, therefore, we consider this evidence of suspended arterial impulse at the commencement of the fit, asphyxia during its continuance, and collapse at the close, together with the fact that the violence would seem to be in direct relation to the bloodless condition of the system, we can scarcely do otherwise than conclude that the attendant change in the vascular system is marked by reduction and not by exaltation of the normal energy.

Nor is it different with the nervous system, as we may, indeed, infer from the state of the circulation. At first the face is pale, and it is not until the fit has lasted some time, and the patient is partially asphyxiated, that it becomes injected, tumid, and livid; nay, even in the cases which are ushered in by fainting, (and these are not unfrequently the worst of all,) this paleness may continue throughout. So far as the face is concerned, (and this is a proper index of the state of the circulation within the head,) there is no evidence, therefore, of an excited state of the brain. And, as this depression extends to the entire vascular system, it follows that we must draw a similar conclusion in reference to the state of the spinal cord and other nervous centres. It is equally evident, also, that the congestion which is subsequently set up in these several centres, in consequence of the asphyxia, is not the cause of the fit; for, as Foville first remarked, the fit precedes any muscular fulness, and passes off when the congestion is at its height.

There is, however, direct as well as indirect evidence that the nervous energy is not exalted. Thus, in the majority of cases, there is no mental excitement before the fit, and in the

rest the existence of such a state is extremely problematical. Generally epileptics sit or move about in a moping or listless manner, and fall down at once without any premonition, and even when more animated, the attack for the most part is not less unexpected. And where there is any warning this is generally a mysterious creeping and chilly feeling analogous to, and often undistinguishable from, that which ushers in the initial shudderings of febrile disorders; and therefore, —if we may judge from this collateral consideration,—it is a phenomenon which indicates a state the very reverse of excitement. In other ways, also, the history of the attack exhibits the want of nervous energy. Consciousness is completely lost,—and hence we must suppose the part of the brain concerned in the manifestation of this attribute to be inactive. Sensibility is suspended,—and it is necessary to draw a similar conclusion in relation to the region devoted to this function. And this being the case, it is not easy to suppose an exception as to the rest of the nervous system; at any rate we may refuse, in the evidence which has preceded, to admit the presence of involuntary convulsion as a sufficient proof.

That there is a general prostration of the nervous energy, may be argued also from other considerations. It follows, indeed, from the state of the circulation, for this involves depression of the entire bodily powers. It follows, also, from the absence of any constant signs of vascular activity among the appearances presented on death. There are in many instances undoubted proofs of active mischief, but these are to be met with where epilepsy has been complicated with mania. We may argue, moreover, that these signs are accidental so far as the epilepsy is concerned, and that the very opposites belong to the disease; and this both because the convulsive seizures occur more rarely and are less severe in their character in maniacal patients, and because they are more frequent and violent in cases where the mind is fatuous rather than excited, and where the nervous system presents a pallid or venous appearance, with atrophy of the substance, and superabundant serosity. Do away, indeed, with non-essentials, (and the traces of mania must be ranked in this category,) and the only appearances we can detect in the nervous system are those which indicate defective functional activity during life, and these general and not local. What we find, indeed, is like unto that which supervenes naturally in advanced life; and the fact, that convulsive movements are associated with senile degeneration, is one of the many proofs of the correctness of this observation.

In relation to the antecedents of the fit, it is the same with epileptics as with persons subject to hysteria or chorea. Thus, it is not joy, but fear or fright, to which the seizures are referred; it is not to the temperate indulgence of the appetite, but to excess and abuse, with the exhaustion consequent thereon; it is not to a good meal, but to the want of it. Indeed, in many scores of cases in which I have examined minutely into the history of the attack, I have not been able to find a single instance in which the patient did not indicate some or other cause, the direct or indirect operation of which was to depress the vital powers.

So far as we can see, therefore, the accompaniments and antecedents of the epileptic attack indicate prostration and collapse; and thus this formidable malady would seem to ally itself with the simpler and more familiar conditions of convulsion which have already occupied our attention.

4. No signs of excitement are attendant upon the rigors or convulsive movements which usher in febrile affections or true fevers; and not only so, but there is positive evidence of actual depression, both of body and mind. It is evident also from the history of cholera, that the severity of the convulsion is in direct relation to this depression; and this conclusion is in perfect accordance with the history of the last stages of fever; for in this case we find that the subsultus, which made its appearance when the powers of the system began to fail, is exaggerated into convulsive struggling at the time of death.

Here, also, we cannot well suppose any focus of energy in the shivering or convulsed patient from which an excess of motive influence is supplied to the muscles; indeed, the evidence of any primary local affection is altogether wanting. Inflammation, or some similar disturbance, may arise in the progress of the malady, and this may be in the brain or elsewhere; but, as this is not constant in its occurrence, or in its locality when it does occur, and as it is obviously secondary in point of time, it is evident that it cannot be essential to the convulsion.

Analogously, we may argue as to epilepsy and the allied maladies; and we may suppose that any local affections, however much they may increase the liability by aggravating the weakly state of the system, are, nevertheless, not essential to the malady itself. And not only so, but as, in the cases under consideration, we find that convulsion is incompatible with vascular excitement, so we gain additional confidence as to the correctness of what we have advanced when speaking of chronic convulsive maladies.

5. During a fit of catalepsy the appearances are so peculiar, that it is scarcely possible to avoid the conclusion that the contractions in the muscles are the anticipation of those which happen after death. Every circumstance indicates that life is upon the very verge of extinction, and the patient, to use the words of Dr. Watson, "looks like a waxen figure, or an inanimate statue, or frozen corpse."

In tetanus, also, there is no reason to suppose excitement necessary to the attack, but rather the contrary. Indeed, the fact that this happens for the most part unexpectedly, and without any warning, after a preliminary stage of depression, together with the fact, that the spasms are often unabated when the vital energy is well-nigh extinct, may be considered as arguments which tend to show that the accession is at a time when the system had become depressed to a certain point.

It is the same also with *rigor-mortis*; for in this case the accession is immediate if the strength has been previously worn away by an exhausting disease like fever, or by the slower waste of consumption or old age; but it is deferred for a long period, often for days, when a person has been cut down in the full vigour of health. In other words it would seem as if this peculiar rigidity were resisted by the lingering vitality of the system.

6. We need say little upon the mode of attack in those vaguer forms of convulsions which do not come under any of the former heads. There is nothing, however, which is not in accordance with what has been said. Indeed, a chief argument in favour of all is to be found in the epileptoid convulsions, which depend upon hæmorrhage; for in this case it is impossible to doubt that the immediate and only cause is unmodified exhaustion.

7. In conclusion: the lesson to be deduced from these considerations is, that the *convulsive attack* is accompanied, and, so far as we can judge, determined, by a depressed state of vital energy. At any rate we must admit the absence of all proof that it is dependent upon an inflammatory or congestive state of the system, whether partial or general.

4, Henrietta-street, Cavendish-square.

[To be continued.]

MEDICAL MEN IN THE ARMY.—Mr. F. Maule, in his speech in the House of Commons on the 28th ult., on the army estimates, when alluding to the reductions that had been made since the past year, observed, "in the army medical department, the service had lost by the retirement, not, he was happy to say, by the death of Sir James M'Grigor, an officer to whom the public were much indebted. In consequence of his retirement, at the age of 81, reductions had been effected amounting to 1085*l*. In the medical staff of the army the reductions made amounted to 1414*l*." And this is made a matter of boast by an English minister, although it has been clearly shown by Mr. Guthrie that numerous lives were lost during the late wars in India, in consequence of the paucity of medical officers. Reductions are made in a body of most useful men, although they are already far from being sufficiently numerous, while efforts are strenuously made to keep up a comparatively useless staff of military officers, fit only to knock out the brains of others, or to lose their own. If, instead of reducing the number of medical men attached to the army, a reduction of one-third of the fighting officers had been made, the lives of the common soldiers would be in less jeopardy.

NELSON *v.* WRIGHT.—This was an action tried at Warwick, promoted by one physician against another, for seeking to damage anonymously the plaintiff's credit. The evidence proved to be greatly to the advantage of the defendant, and ultimately a juror was withdrawn.

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THE LONDON PRACTICE OF MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

BY

HENRY SMITH, Esq., F.R.C.S.,

(Formerly House Surgeon to the Hospital.)

AND

BY LIONEL S. BEALE, Esq.,

Medical Associate, K.C.L., and House-Physician to the Hospital.

CASES OF CHOREA, WITH EXAMINATIONS OF THE URINE.

Case 1.—Mary Jackson, aged 12, a healthy-looking girl, who has always lived in the country, and has generally enjoyed good health, was admitted into King's College Hospital, under the care of Dr. Todd, in November, 1850, affected with general chorea. At the time of her admission into the hospital she was rather thin, but appeared to be in pretty good health. The choreic movements were present in every part of the body, and she was unable to articulate in the slightest degree. She is of fair complexion, has brown hair and dark eyes. Her parents are very healthy, but her eldest sister has suffered from rheumatic fever. Nine weeks before her admission she had been much frightened by meeting a drunken man; and a few days afterwards she complained of pain in the right arm and leg, at the same time experiencing a tingling sensation about the fingers of the right hand. The left arm and leg soon became affected with a similar pain, and her mother noticed slight twitching of some parts of the face. In a fortnight after the occurrence of the fright, the whole body was more or less affected with convulsive twitchings, which she could not control in the slightest degree, and which gradually increased in power, entirely preventing her from walking in about five weeks after the first appearance of the malady. The power of articulation became impaired about a fortnight before her admission, and she had been gradually getting worse up to that time. For the six weeks previous to coming into the hospital she had been under medical treatment, and had had a cold shower-bath every morning and a tepid shower-bath in the evening, but the symptoms did not undergo any improvement.

At present the muscles of both arms and legs are affected with very rapid and powerful, but irregular convulsive movements, which succeed each other at very short intervals, and are much increased under any slight excitement, such as the presence of strangers, &c. The muscles of the trunk are similarly affected, but in a less degree, so that the body is every now and then contorted, and the legs suddenly thrown from one to the other side of the bed. All the movements are more severe on the right side of the body, and are much aggravated by any attempts that are made to restrain them. The tongue is protruded with the characteristic jerk, and suddenly withdrawn. Sometimes she can articulate a few words; but in the presence of strangers she is quite unable to utter a syllable. All the movements cease perfectly during sleep. The pulse cannot be counted at the wrist in consequence of the great jerking of the tendons; pupils equal; heart's action very irregular, occasionally much accelerated. There is a very distinct systolic bruit heard at the apex.

She was ordered to be splashed with cold water night and morning, and to take a little purgative medicine. The splashing is effected by placing the patient in a bath, and throwing successive quantities of water forcibly against her, to the extent of one or two pailsful. In three days after the commencement of this treatment a marked improvement had taken place; the movements were not so frequent and severe, and the tongue was protruded more steadily. On December 6th (a week after her admission) the pulse could be easily counted at the wrist, and was found to be 72. On the 8th she was ordered to take a grain of quinine three times a day, and to continue the splashings; a week afterwards she was ordered three grains of citrate of iron three times a day. From this time she gradually improved, and on the 17th could walk with the assistance of the nurse, and she lay perfectly quiet when in bed; in three weeks more she appeared quite well; could walk without any assistance, protrude the tongue without any jerk, and only became troubled with very slight twitchings of the arms in the presence of strangers.

In this case the pulse varied much from day to day, both in frequency and power; sometimes being as low as 60, while it occasionally reached 110. On December 16th the pulse was 60; but on the 17th, without any change in the other symptoms, it had reached 120, and on the following day it was 108.

The urine was of very high specific gravity while the severity of the symptoms continued; but as the condition of the patient improved, it gradually diminished in density. I find, on referring to the notes of Mr. Liddon, one of Dr. Todd's clinical clerks, that on December 12th, the specific gravity was 1037; on the 14th, 1041; on the 19th, 1034; on the 21st, 1030; and on the 27th, 1022. The urine always had an acid reaction, frequently contained a large deposit of lithate of ammonia, and on several occasions a considerable quantity of crystals of nitrate of urea were formed, upon the addition of an equal volume of nitric acid to a portion of the urine.

On December 17th the density of the urine was 1033, its reaction acid; and it contained a great deposit of pale lithates.

I found in 1000 parts,

		In 100 parts of Solid Residue.
Water	917·90	
Solid Matter	82·10	
Urea	41·10	50·06
Alkaline Salts	12·83	15·62
Earthy Salts	00·77	00·93
Animal Extractive and a little Lithic Acid	27·40	33·37
	1000·00	

This patient's sister (aged 14) is now in the hospital suffering from the same malady, and an important feature in her case is, that she had an attack of rheumatism many years ago.

The following cases occurred in the hospital about two years ago, when I had daily opportunities of watching them, and of carefully examining the condition of the urine:—

Case 2.—Sarah Skinner, aged 10, a native of London, where she has always resided. About a fortnight before her admission her mother noticed a slight twitching movement of the eyelids, soon followed by spasmodic contractions of the muscles of the face and limbs. At the time of her admission all the limbs were affected with the choreic movements occurring at short intervals. The left side of the body was, however, more affected than the right, and the jactitations were particularly strong in the left arm and fingers. The tongue was protruded with the characteristic jerk towards the right side; and so uncontrollable were the movements that she could not articulate. The movements were sometimes observed to be most severe on the right side of the body, and at others the left side would be found to be most affected. This change from one side to the other of the severity of the movements was observed to occur on several successive days. The heart's sounds were perfectly normal, and the pulse was 112.

The treatment which Dr. Todd adopted in this case consisted of cold sponging daily with quinine and iron, and, subsequently, of cod-liver oil, in two-drachm doses three times a day; the cold baths being continued during the whole time she was in the house. Under this plan she gradually improved, and was discharged quite well on January 22, having been less than two months under treatment.

The urine was generally of very high specific gravity; and for the first five days after her admission contained an abundant deposit of lithate of ammonia, its reaction being invariably acid.

On December 12th (a fortnight after her admission) the urine contained several large crystals of lithic acid.

The urine of December 15th had a specific gravity of 1034. It contained a large deposit of red crystals of lithic acid, and

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a great many small octohedra of oxalate of lime. Upon analysis I found in 1000 parts of this urine,—

		In 100 parts of Solid Residue.
Water	918·75	
Solid Matter	81·25	
Urea	30·09	37·03
Extractives	35·27	43·49
Alkaline Salts	13·54	16·66
Earthy Phosphate	1·09	1·34
Vesical Mucus and Lithic Acid	1·26	1·55
	1000·00	

From the 15th to the 22nd the urine presented the same characters, varying in specific gravity from 1023 to 1036, but always containing a deposit of lithic acid. On the 22nd a few crystals of oxalate of lime were again observed, with much lithate of ammonia.

On Dec. 26th (not quite four weeks after admission) the urine was 1020, and varied but little in density during the rest of the time that she remained in the house. The day after this patient left the hospital her sister was admitted, suffering from the same affection, but of a milder form. In her case the urine was high-coloured and very acid, depositing many of the red cayenne pepper crystals of lithic acid. A week after admission, and four weeks from the commencement of the malady, the urine was found to be 1025, and contained much lithate of ammonia. A few days afterwards the density was 1028, and it still contained much lithate of ammonia, but no lithic acid. It is to be regretted that more frequent examinations of the urine were not instituted in this case, as the few observations which were made on the condition of this secretion so much resemble the results obtained in the two former cases.

Case 3.—Mary Ann Hall, aged 20, a healthy looking girl, of fair complexion, with light brown hair and blue eyes, was admitted into King's College Hospital, under Dr. Budd, in consequence of being affected with twitchings of the muscles of the right arm, and general convulsive movements of the whole limb. Her health has usually been pretty good. The catamenia appeared at fifteen, and she has been quite regular ever since. When about eight years of age she had an attack of rheumatic fever, for which she was bled to syncope, and blistered.

In consequence of her continued ailments her mistress was not long ago prevailed upon to allow a gentleman to mesmerise her, hoping that she might receive benefit from this mode of treatment. She was consequently mesmerised several times, and, in the following month, an attack of chorea came on, particularly affecting the movements of the right arm, from which attack, however, she recovered, and was sent into the country for a short time; but, upon her return to London, the choreic movements re-appeared, and she was admitted into the hospital on Nov. 2.

Her present illness came on about three days before admission, with twitchings of the muscles of the right arm, which have since much increased in severity. Her arm and hand are now continually jerked up and down in an irregular manner, and, although no other part of the body seems affected with the movements while she is lying down, as soon as she attempts to walk the legs become affected to a slight degree, so that progression is difficult. She speaks in a very nervous manner, and stammers very much sometimes. She appears restless, and does not sleep well at night. Tongue coated; pulse small and compressible, 112; bowels regular. She was ordered a grain of sulphate of iron and two of quinine, in a pill, every four hours, and the third of a grain of morphia at bed-time. On November 6th the urine had a specific gravity of 1030, and was acid and high-coloured. On the 8th some improvement had taken place in the movements. Urine, specific gravity 1025, acid, contains mucus and small crystals of oxalate of lime.

Two days afterwards, the urine was high-coloured and turbid, specific gravity 1034, containing lithate of ammonia and oxalate of lime; pulse 96. On November 20th the movements of the arm had much diminished in frequency and force, the tongue was cleaner, and the pulse 76; urine turbid, very acid, specific gravity 1035, containing lithate of ammonia. She was ordered, on November 29th, to take a grain and a-half of sulphate of zinc three times a day, and a week afterwards this was increased to three grains. On January 3rd the quantity was further increased to five grains, and she took a cold shower-bath every day. But little change was made in this treatment until Jan. 24th, when the quinine and iron were again ordered, and under them she progressively improved, without any great variation in the character of the symptoms. She was discharged quite well on March 5th. The father of this patient frequently suffers from severe attacks of gout.

On Nov. 7th I examined the urine by the microscope, and found that the deposit consisted chiefly of vaginal epithelium, with a great number of very minute crystals of oxalate of lime, for the most part crystallized on hairs. This urine had a specific gravity of 1025. On the 21st the urine contained some globular crystals of the oxalate, a few of which approached to the form of dumb-bells, with many ordinary octohedra. The day following a great many dumb-bells were found, with a less number of the globular crystals. On the 23rd, the dumb-bells had again decreased in number, but many ovoidal crystals had made their appearance mixed with the ordinary form of the oxalate. On the 29th all the crystals were of the globular form, and no dumb-bells were found. There were a few oval crystals present on the following day, and it was noticed that many of the octohedra had their angles rounded and very indistinct. On December 1st the urine contained only a very few octohedra, and no other form of crystal of the oxalate; and on the 3rd it possessed the same characters; and it was again examined on the 6th with the same result. This gradual change in the form of the crystals of oxalate of lime I have observed in other cases. Small and perfectly spherical crystals first make their appearance in the urine, and are replaced in a day or two by crystals of an oval form, some of which approach the form of the dumb-bell. The next day, perhaps, well-formed dumb-bells are observed, and these may frequently be found in the urine for many days successively; but, in the cases which I have had an opportunity of observing, they have seldom exhibited a perfect form for more than two or three successive days. They then become mixed with the oval form of crystal, which is soon replaced by the globular variety; these, again, ultimately disappear, and octohedra are alone found. These last, however, are usually present in considerable numbers during the whole time that the other forms of the oxalate are observed in the urine. That the globular and oval forms of crystal do not depend upon viewing the dumb-bell in different positions, is easily proved by causing the crystals to roll over in the field of the microscope, when their truly spherical or oval character can be easily demonstrated.

The subjoined woodcut (*Fig.* 1) was taken from a drawing of the various forms of crystals of oxalate of lime present in a specimen of urine taken from a patient, who was in the hospital some time ago, suffering from general contraction and thickening of the skin of the whole body, causing more or less rigidity of all the limbs; a condition to which the term "hidebound" has been frequently applied. It illustrates pretty well the remarkable variation in size and form of the crystals present in a single specimen of urine.

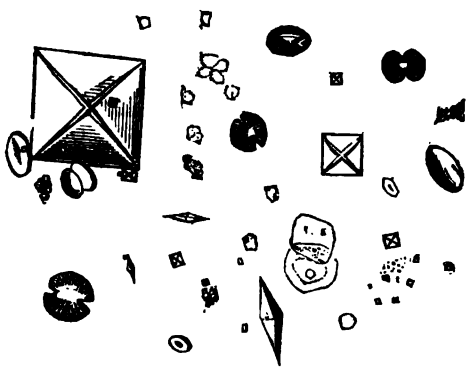

Fig. 1. Copied by the camera, magnified 200 diameters. The size of the dumb-bells is frequently found to vary very much in a single specimen of urine, though not to the same degree as the octohedra, some of which are so small as to appear like minute points, while others are often found to measure as much as the 1-800th of an inch, or even more, in diameter. The crystals of oxalate of lime having a

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spherical, oval, or dumb-bell form, are probably crystallized before the urine is passed, while many of the octohedra are certainly deposited afterwards, and may be found crystallised on small hairs and other foreign bodies which have accidentally fallen into the urine.

The annexed woodcut (*Fig.* 2) was taken from a drawing of some casts present in the urine of a cholera patient. The urine was passed after eighteen hours' complete suppression. It was clear, rather high coloured, and very acid. Heat and nitric acid produced no change in it. It had a specific gravity of 1024, and contained a very slight deposit, consisting entirely of very transparent, perfectly smooth, and almost structureless casts, some of which, however, contained a small quantity of granular matter, and a few small cells, not larger than a blood corpuscle; others were found to contain dumb-bells, or spherical crystals of the oxalate. No octohedra were observed in the casts, but several were found scattered in the surrounding fluid, while the dumb-bell forms of crystal were present in the casts only, which circumstance rather tends to favour the idea that these remarkable crystals have their origin in the renal tubes.

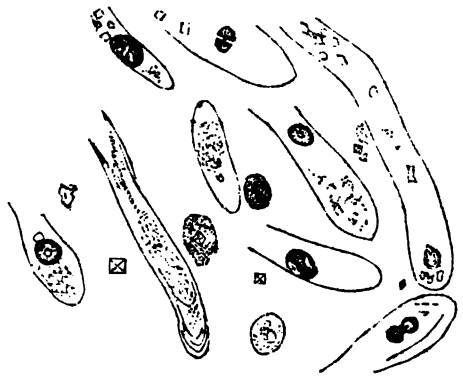

Fig. 2.—Fibrinous casts, with dumb-bell and spherical crystals of oxalate of lime, taken with the camera, and magnified 200 diameters.

Some crystals of this peculiar form, which had been kept for some weeks in very dilute acetic acid, had undergone a curious change at the end of that time. Each crystal appeared to consist of a cell, of the form of the original dumb-bell, being perfectly transparent near the edges, but in the centre a bundle of acicular crystals were observed, and these appeared to radiate from the constricted part of the cell into the dilated portion. In many instances the appearances of crystalline structure were altogether absent, and nothing but the cell-wall of the crystal remained, which did not exhibit even the slightest trace of a striated structure. In the immediate neighbourhood of the cells, many long, four-sided, and beautifully transparent prismatic crystals had formed, many of which were very large, and were distinctly visible by an ordinary lens.

From this it would appear that the crystalline contents of the dumb-bell had been slowly dissolved by the weak solution of acetic acid, from which solution crystallization had subsequently taken place, the crystals taking the form just mentioned.

The cells were examined by polarized light, and were found not to polarize in the slightest degree; while the dumb-bells, previously to having undergone the change above described, exhibited the phenomena of coloured polarization, whether they were preserved in aqueous solutions or mounted in Canada balsam.

The octohedra which were preserved in this preparation had not undergone the slightest change; from which it might be inferred that the composition of these crystals is not identical with that of the dumb-bells, although both, when recently passed, are similarly affected by the ordinary reagents, being alike insoluble in potash and acetic acid, but readily soluble in nitric acid without effervescence.

The condition of the urine in these cases is very interesting in reference to the pathology of chorea, as it in some degree tends to confirm the opinion, that there is connexion between this remarkable condition and the rheumatic and gouty diathesis, to which circumstance attention has lately been drawn by Dr. Todd, in his Lumleian Lectures for 1849. After referring to the frequency of the presence of valvular disease of the heart in cases of chorea, and also to the occurrence of rheumatic pains in children afflicted with this malady, Dr. Todd says, in reference to the condition of the urine, "I have seen many instances of choreic children passing urine of high specific gravity, loaded with lithates, and sometimes precipitating lithic acid in very notable quantity and for a considerable time." The high specific gravity of the urine in the cases just related, the presence of lithic acid and oxalate of lime, frequently accompanied with a great excess of urea and a copious deposit of pale lithates, clearly indicate that there must be considerable disturbance in the general nutrition of the patient; for there can scarcely be a morbid alteration of the secretions themselves without a corresponding state of depravation having taken place in the fluid from which they are formed; and in many of those conditions in which a considerable departure from the healthy composition of the urine occurs, there frequently exists other evidence of a depraved state of blood. Thus, the frequent occurrence of pericarditis, and the shifting nature of the affection of the joints in acute rheumatism, the deposition of lithate of soda in cases of gout, and the very sudden attacks of bronchitis, or of severe pain in the stomach, frequently accompanied with vomiting, which are prone to come on in this malady, and which are suddenly relieved as soon as the gouty inflammation develops itself in a distant part, and (it may be added) the presence of valvular disease in many cases of chorea may perhaps all be looked upon as indications either of the presence of some morbid matter in the blood, or possibly of a morbid alteration having taken place in some of its constituents, and the condition of the urine may perhaps be looked upon as an indication of the existence of a depraved state of general nutrition.

In all these cases there was a considerable departure of the urine from health, both as regards the relation of the quantity of some of its constituents to each other, and also in the presence of certain substances not met with in appreciable quantity in healthy urine; and it is also an interesting point, that crystals of oxalate of lime should have been present in considerable quantity in the urine of two of the cases reported. I have several times observed this substance more or less abundant in the urine of chorea, and it is remarkable that in all of these cases there should have been a considerable deposit of crystals of lithic acid. For it is not common to find either of these substances in the urine of young persons, although both of them are frequently present in the urine of those who have passed the middle period of life, and suffer from various diseases dependent upon a vitiated state of blood.

After discussing various points relating to the true nature of chorea, which lead to the inference that this disease is generally humoral in its origin, Dr. Todd, in drawing his conclusions in reference to the pathology of this affection, says, "thirdly, that the nature of the cerebral affection is one of weakened nutrition, with some degree of irritation, as if poor blood, rendered, perhaps, impure by the presence of the matter of scrofula, or of rheumatism, or by some morbid matter peculiar to chorea, had excited the nervous battery, and had caused it to generate its force feebly and irregularly. The centre of emotion thus feebly excited and irritated by the presence of an abnormal ingredient in the blood, extends its feeble and irregular polarity to that portion of the centre of implantation of the nerves, which, as the polar state of the conductors of the battery is regulated by that of the battery itself, exhibit the same enfeebled polarity as the centre in which they are implanted."

L. S. B.

SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON COMPARATIVE OSTEOLOGY.

BY RICHARD OWEN, F.R.S.
Hunterian Professor to the College.

THIS AFTERNOON, APRIL 5.—Lecture XIV.—*Cetacea.* Their General Characters compared with that of Fishes; Vertebral Column: Anchylosis confined to the Region of the Neck. No Sacrum. Peculiarities of Ribs and Sternum. The Skull: Singular Development of the Cranial and Facial Bones: their Modifications in relation to Locomotion in Water and Respiration of Air. The Hyoid Arch. The Bones of the Fore-limb modified as a Fin. Rudimental Pelvic Bones. Cranial and Vertebral Characteristics of Sirenia. Antiquity of the True Cetacea on the Globe. The Great Zeuglodon of Alabama. Fossil Remains of Whales in the Suffolk Crag: their unexpected Value in Agriculture.

TUESDAY, APRIL 8.—Lectures XV. and XVI.—*Ungulata* or Hoofed Quadru-

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pods. General Characters of this Great Natural Group of Mammalia. Dental and Osteological Characters of the Earliest Forms introduced into this Planet. Anoplotherium and Palæotherium, the Types of the Two Natural Primary Divisions of Ungulata, viz., Artiodactyla and Perissodactyla. Ruminant Artiodactyles. Their Osteology; Peculiarities of Cervical Vertebræ. Structure of the Skull: Forms, Structure, and Growth of Permanent and Deciduous Horns. Shedding and Renewal of Antlers. Modifications of the Organs of Locomotion. Recent Introduction of the Ruminant Type upon the Earth. Non-ruminant Artiodactyles, represented at the Present Day by the Hog Tribe and the Hippopotamus. Dorsal Spines of the Wild Boar. Massive Skeleton of the Hippopotamus; Enormous Facial Part of the Skull as compared with the Cranium. Transition to Non-ruminants made by the Anoplotherium, which retained many of the Fœtal Characters of the Ruminant. Perissodactyla; Three Natural Divisions of this Group typified by the Horse, the Rhinoceros, and the Elephant. Leading Peculiarities of their Skeletons. Degradation of the Feet from the Pentadactyle to the Monodactyle Structure. Determination of the Bones of the Feet and of the Retained Digits. Former Abundance and Wide Geographical Range of the Proboscidian Pachyderms. The Elasmotherium, Dinotherium, Macrauchenia, and Nesodon.

THURSDAY, APRIL 10.—Lecture XVII.—*Edentata* or *Bruta*. Transition to this Order from the Ungulata made by the Extinct Megatherioid Quadrupeds, which had both "Hoofs" and "Claws;" Claws of Great Length in all the Order: Teeth, if present, without Enamel; Few other Common Characters. Leading Divisions of the Group typified by the Sloth, the Ant-eater, and the Armadillo. Their Osteology compared: Numerous Dorsal Vertebræ of the Unau; Numerous Sacral Vertebræ of the Armadillo. Extreme Flexibility and Unusual Number of Vertebræ of the Neck of the Sloth. Short and Anchylosed Cervicals of the Armadillo. Complex Dorsal and Lumbar Vertebræ of Armadillos and Ant-eaters. Tail very Long and Prehensile in Certain Ant-eaters: very Short or Wanting in the Sloths: of Great Size and Strength, serving as an Accessory Hind-limb, in the Megatherioids. Its Singular Armour in the Glyptodons. Variable and Inconstant Bones of the Skull illustrated by the Conditions of the Zygomatic Arch in the Edentata. Long and Edentulous Jaws of the True Ant-eaters. Modifications of the Fore and Hind Limbs for Climbing, for Digging, for Uprooting and Pulling down Trees. Dermal Skeleton of the Manis and of the Existing and Extinct Armadillos.

SATURDAY, APRIL 12.—Lectures XVIII. and XIX.—*Rodentia*. Their Numbers, Extensive Distribution, Feeble and Defenceless Character, and Great Fertility. Subdivided according to the Rooted or Rootless Character of their Molar Teeth, which govern the Nature of their Food. Their Osteology illustrated by the Skeletons of the Squirrel, Beaver, Cavy, Jerboa, and Hare. Modifications of the Masseter Muscle and of the Mandibular Articulation in relation to the Gnawing Powers of the Order. *Insectivora*. Principal Forms and Osteological Characters of this Order illustrated by the Skeletons of the Hedgehog, the Shrew, and the Mole. Modifications of Trunk-Vertebræ in the Hedgehog, of the Cervical Vertebræ in the Mole. Feeble or Incomplete Zygomatic Arch; Clavicles constant in the Insectivora. Relations of the Sternum, Clavicles, and Massive Fore-limbs, of the Small and Open Pelvis, and Feeble Hind-limbs of the Mole to its Subterraneous Existence. High Antiquity of the Insectivorous Mammalia. *Cheiroptera*. The Characters of the Types of the Order show a Modification of the Insectivora for pursuing their Prey in the Air. Vertebræ of the Trunk. Skull: Smooth thin Cranium; Moveable and Inconstant Premaxillaries; Slender Zygomata. Carinated Sternum: Scapula and Large Coracoid: Powerful Clavicles: Ulnar Patella: Elongated Fingers. Open Pelvis. Bones of the Hind-limbs. Peculiarities of the Skeleton of Bats compared with that of other Mammals, of Birds, and of Pterodactyles.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening, April 5.—MEDICAL SOCIETY OF LONDON. *Subject*:—Mr. Wakley, "On a Case in which Excision of the Astragalus and Os Calcis was made; with General Remarks on the Excision of Joints." Eight o'Clock.

Monday, April 7.—EPIDEMIOLOGICAL SOCIETY. *Subject*:—"The Epidemic Mental Diseases of Children, founded chiefly on Hecker's Children's 'Pilgrimages' and 'Sympathy.'" Half-past Eight o'Clock.

ENTOMOLOGICAL SOCIETY. Eight o'Clock.

CHEMICAL SOCIETY. Eight o'Clock.

Tuesday, April 8.—ROYAL MEDICAL AND CHIRURGICAL SOCIETY. Half-past Eight o'Clock.

ZOOLOGICAL SOCIETY. Nine o'Clock.

Wednesday, April 9.—PHARMACEUTICAL SOCIETY. Nine o'Clock.

GEOLOGICAL SOCIETY. *Subject*:—1. Rev. P. B. Brodie, F.G.S., "On the Basement Beds of the Inferior Oolite of Gloucestershire." 2. Sir J. Richardson, "On the Physical Geography of North America, as connected with its Geological Structure." 3. Dr. Bigsby, F.G.S., "On the Erratics of Canada." Half-past Eight o'Clock.

Thursday, April 10.—ROYAL SOCIETY. Half-past Eight o'Clock.

SOUTH LONDON MEDICAL SOCIETY. *Meeting of Council*. Half-past Seven o'Clock.

Friday, April 11.—ROYAL INSTITUTION. *Subject*:—Professor Faraday, "On Atmospheric Magnetism." Half-past Eight o'Clock.

Saturday, April 12.—MEDICAL SOCIETY OF LONDON. *Subject*:—Dr. Henry Bennett, "On the Diagnosis of Inflammatory Disease of the Uterus, and on the Use of Potassa Fusa in their Treatment." Eight o'Clock.

ROYAL BOTANIC SOCIETY. Quarter to Four o'Clock.

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THE MEDICAL TIMES.

SATURDAY, APRIL 5.

SMALL-POX IN HINDOSTAN.

THE increasing interest taken by all classes of persons in the subject of small-pox, and the efficacy of vaccination as its preventive, is too apparent to require much illustration. It meets us in social life, in professional re-unions, in the volumes and pamphlets which issue from the press. It is impossible, under such circumstances, but that the British public must feel some interest in knowing what is thought of these matters in distant parts of the world, and especially in Hindostan, where the English rule dominates over sixty millions of people, and where, from the very first dawnings of Jenner's great discovery to the present time, vaccination has been fostered under the wings of Government, and no expense spared to diffuse its blessings. A volume full of interest, now lying before us,(a) enables us to gratify a wish in which we presume the readers of this Journal will naturally participate. To render the picture complete, we propose to take up the subject deliberately—to state, in the first instance, the facts which this volume discloses; next, the speculations to which these facts have led; and, lastly, the remedial measures which the Commissioners of the Indian Government have recommended. Something may be found in each division of the subject applicable to ourselves. On the present occasion, we confine our attention to the first part of the text.

Calcutta, the capital of our Indian Empire, contained, by the census of May, 1850, a population of 413,182 persons, of whom 274,000 were Hindoos, 110,000 Mohammedans, 6233 Europeans, and about the same number of residents from other countries. Calcutta is, therefore, about one-fifth the size of London. Small-pox is never altogether latent in Calcutta; but there have been four severe epidemic visitations of the disease within the last eighteen years:—viz., that of 1832-33, which carried off 2814 persons in sixteen months; that of 1837-38, when, in the same period of time, 1548 persons died; that of 1843-44, when 2949 persons were carried off in sixteen months; and lastly, that of 1849-50, when no

(a) "Report of the Small-pox Commissioners appointed by Government, with an Appendix." Calcutta, July 1, 1850. Printed by order of Government. Pp. 276.

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less than 6431 perished in seventeen months—that is, between Jan. 1, 1849, and May, 1850—a number exceeding by 668 the entire mortality of the two severest of the preceding epidemics. The proportion of deaths to seizures having been estimated at 1 to 5, it follows that 32,155 persons were attacked by small-pox in Calcutta during the prevalence of that one epidemic, or nearly one-twelfth of the whole population! At the time of writing the report from which we quote, (July 1, 1850) the epidemic had not ceased, but was manifestly on the decline. We may here remind our readers, that in the same space of time small-pox has been epidemic in London four times, and at periods closely corresponding; viz., in 1835, 1838, 1844, and 1847-48.

The average annual mortality by small-pox in Calcutta during eighteen years (including three of epidemic prevalence) had been 581. During the first quarter of 1850, the deaths amounted to 3609 among a population, estimated, as we have seen, at about 413,000. This gives a daily mortality of 40, and a weekly mortality of 280. The corresponding number for the existing population of London would be 1400. Now, the highest number ever recorded in the London Tables of Mortality since their establishment, was in the spring quarter of 1838, when 1145 deaths by small-pox were recorded in thirteen weeks, so that, relatively to population, more deaths occurred at Calcutta in one *week* of 1850, than in London in any one *quarter* since 1837. These figures may give some idea of the general and profound anxiety which prevailed at Calcutta during the height of the recent epidemic.

The Christian population suffered, though apparently to a less extent. It is calculated that about 330 persons of that class died of small-pox in the six months from Dec. 1849 to May 1850 inclusive, of whom one-half were children of five years of age and under.

The epidemic of 1849-50 is divisible (as was the cholera with us in 1832) into two portions. It was sharp in April and May 1849, then lulled, re-appeared in December, 1849, and finally reached its climax in March, 1850.

The question will naturally arise, how are all these statistical details arrived at? Does Calcutta possess a Registrar-General, and an army of *registering clerks?* It does not; and the fact is, that much of what we have quoted is guess-work. The deaths in the Christian community were estimated from newspaper notices and undertakers' books. The deaths among the native population were compiled from documents kept at the public Ghats and burial-grounds.

Another and not less interesting series of questions concerns the previous condition of the native victims of small-pox. What proportion of these cases, whether in the white or coloured population, had been inoculated; how many vaccinated? What proportion of the native population was supposed to be *protected* by either process at the outbreak of the epidemic? How did the vaccinated portion of the native population, infantile and adult, fare during the storm? Did fear or confidence predominate in the minds of the European vaccinated adults? We regret to say, that we have searched in vain throughout the report for answers to these interesting interrogatories. There does not appear to exist at Calcutta any office specially devoted to sanitary superintendence.

Among the most curious facts which the Report brings out, may be reckoned the influence of season on the diffusion of small-pox in Calcutta. It is found almost invariably that the disorder is checked by the heavy rains of June and July, so that in September and two following months it ceases for the most part altogether. The following Table, showing the total monthly mortality by small-pox during eighteen successive years, possesses sufficient interest to be transferred to our columns:—

Table showing the Total Monthly Mortality by Small-pox during Eighteen Years, from 1st May, 1832, to 1st May, 1850, in Calcutta.

January	1316	July	551
February	2372	August	169
March	3689	September	161
April	2846	October	134
May	1419	November	120
June	761	December	512

From this Table we learn that, so far as small-pox is concerned, March is the month of *maximum* and November that of *minimum* intensity. The law, however, does not hold good with other exanthemata; measles, for instance, generally bursts out on the decline of small-pox, and often attacks with great violence the convalescents from that disease.

The effect of season on cow-pox is not less worthy of attention. Extreme heat is very unfavourable to vaccination, not only in Calcutta, but throughout Bengal and the upper provinces of India generally. The rainy season (June and July) is even more deleterious than heat. In many districts of lower Bengal, it has been observed that the puncture then frequently produces violent inflammation, with tendency to degenerate into foul sloughing sores. It is admitted on all hands that, what between heat and wet, the climate of Bengal is unfavourable, for one half of the year, to successful vaccination.

In India, the tendency in vaccine lymph to deteriorate is so great, that the Superintendent of Vaccination in Calcutta renews his stock annually from the fresh supplies of virus, glasses, and points sent out by the Medical Director of the London Vaccine Institution. We presume that this is Dr. Epps; and we mention the circumstance to his honour. The supplies sent by the doctor, "*with his wonted punctuality and care*," in July, 1850, (and received in Calcutta in September,) appear to have arrived most opportunely.

In spite of the three warnings which three severe epidemics had given to the Indian Government, it does not appear that the system of national vaccination pursued at Calcutta in 1849, when the fourth epidemic broke out, was at all commendable. The numbers vaccinated had, from some unexplained cause, fallen from 19,096 in 1844, to 7088 in 1849; and it is freely admitted that the native stipendiary vaccinators in India are for the most part indolent, and not trustworthy. Efforts were, of course, made to stem the torrent when, in the first months of 1850, the alarm became so great; but the Committee are constrained reluctantly to admit, that the demand for vaccination, *even when the small-pox was at its height*, did not come up to their expectations. The Report attributes this to a variety of causes, such as deterioration of the vaccine lymph, the season, and prejudice on the part of the people. The fact, however, remains incontrovertible, that, in the first five months of 1850, the number of persons vaccinated was only 5089.

In the next article, we shall show more clearly the real causes of this defalcation. We shall then introduce our readers to the variolous goddess Situla, and to the extensive system of variolous inoculation practised throughout India. We shall, at the same time, give our readers an insight into the doctrine of *identity*, as maintained by the *rulers* and the *ruled* in that vast continent.

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HOSPITAL FOR SICK CHILDREN.

The establishment of a Hospital for sick Children is, to use our neighbours' favourite expression, all but "*un fait accompli.*" A copy of the laws for regulating the proposed Institution, adopted at the general meeting over which Lord Ashley presided on the 18th instant, is before us. The exact locality in which the future building is to be erected has not yet been determined. The Committee having wisely resolved that the Hospital shall occupy an airy site, have a good garden attached, and be within a moderate distance of a poor neighbourhood, some difficulty in finding a suitable spot has been experienced. The energy of the Committee will, we are convinced, soon overcome all obstacles in this matter. The rules of the charity cannot fail to secure an efficient medical staff,—a great point, especially in a hospital one chief use of which will be for clinical teaching. The appointment of the two Physicians and Surgeons is to be vested in a Sub-Committee, consisting of the three senior medical members of the Provisional Committee, three lay members of the same body, and the Treasurer. When we add that Sir James Clark, and Drs. Latham and Watson, are the three senior members of the Committee, we are confident the Profession will be satisfied that the merits of the candidates will alone be considered.

Although approving in the abstract this mode of electing medical officers to the new hospital, we cannot help expressing a fear lest the funds of the charity should be injured by removing the appointment from the hands of the governors—a body who like to have something to say and something to do for their cash. The medical officers are to be appointed for a term of twelve years only, but they are to be eligible for re-election for a period of six years. We earnestly trust that every man who possesses influence with the public,—and what medical man does not?—will lend his aid in assisting to secure funds for a charity calculated—to use the words of one of its able advocates—"to prove a blessing to every grade of society, and a great help to the perfecting of the education of the young members of the Profession."

DECEASE OF THE "INSTITUTE."

The *Institute Journal* is no more. Struggling hard for independent existence, during a period of six months, it has at last succumbed to an adverse destiny. The axiom in political matters, denouncing the futility of attempting to revive a falling cause or an obsolete organisation, has, by the failure of this journal, been once more repeated. After a given period, the public grow weary of particular combinations; and if their efforts have been, as in this instance, uniformly unsuccessful, begin to suspect the competency of the men or the wisdom of their policy. This is a fatality attending all political demonstrations. They have only a certain amount of vitality—a pre-ordained career—and then they perish, to make way for combinations more suitable to present modes of thought and aspiration.

The proprietor of the *Institute* must have engaged in his enterprise with something of the self-sacrificing heroism which inspires the leader of a forlorn hope. Hardly appreciating, perhaps, in his zeal for the cause he espoused, the utter unpracticability of the object he sought to attain, he was prepared to become the martyr of his principles and his party. This generous devotion is highly honourable to the individual, albeit such honour is of a kind that will not inspire many imitators. If the journal did not succeed, it was not his fault; the error was in attempting to establish it.

We remember that the *Institute Journal* commenced its career by an unprovoked attack upon ourselves; but we do not carry our recollection of hostility beyond the grave, and our first duty shall be to forget it. We did not fear the journal when it was strong and flushed with hope; and now that it is stripped of the power to injure, we shall not treat it with disrespect. All our efforts in the cause of Medical Reform have been directed to the improvement of the Profession as a whole; and in seeking that end, we have endeavoured to hold ourselves aloof from private passions and party prejudices. We desire to see this journal signalized for its *independence*, and its enunciations of opinion regarded by the Profession as the conclusions of an unbiased judgment. We are not the advocates of any class,—either of Physicians or of Surgeons, or even exclusively of the General Practitioners, but of the united and permanent interests of the entire body of the Profession. We know that there can be no improvement in our institutions, unless the just rights of the General Practitioners are conceded and embodied in our charters; and we shall continue to struggle for this desirable result with all the ardour that has hitherto characterised our efforts; but we hope also with a discernment and prudence that will not estrange from us the approbation of the more experienced and sober-minded members of the Profession. If the Profession had lost confidence in our fidelity, the *Institute might* have been successful; that it was not so, is a proof that we remain unshaken in the esteem of our brethren. Our future conduct shall be such as to render further opposition equally hopeless.

Recent events have only more strongly confirmed our opinion, that the policy of the National Institute is worn out, and has lost the sympathy of the Profession. The Council of that body formerly did good and noble service, but their hour has struck, and the spirit that once animated their efforts has departed.

REVIEW.

Apuntes para la Historia Natural y Médica de la Sanguijuela; Memoria leida en la Seccion de Historia Natural en las Sesiones de 5 de Diciembre, 1842, y 2. de Enero, 1843. Por D. S. Escolar.

Notes on the Natural and Medical History of the Leech, &c., By D. S. Escolar. Madrid. 1843.

The study of Medical Zoology has, in this country, experienced a neglect, not less baneful to the interests than derogatory to the otherwise exalted character of the professors of a liberal and beneficent science. No standard work on the natural history of the animals which inflict injury or annoyance upon man, or are employed in the mitigation or cure of his various diseases, has yet made its appearance in our language.(a) Although thirty-five years have now elapsed since the very creditable treatise of Dr. Rawlins Johnson "On the Medicinal Leech,"(b) issued from the press, no second edition of it has hitherto, we believe, been called for; and, of the thousands of enlightened practitioners by whom the *Medical Times* is weekly perused, few—very few—possess any correct

(a) An octavo volume, entitled "Medical Zoology," was published several years ago, in connexion with the well-known and valuable work of Churchill and Stephenson, on Medical Botany, but it was a very weakly production, quite unworthy, both in its scientific and iconographical execution, of the subject which it was intended to illustrate, and of the country which gave it birth.

(b) "A Treatise on the Medicinal Leech," &c., by James Rawlins Johnson, M.D., F.L.S., &c., 8vo., London, 1816. The best work which we have met with on the leech family, or *Hirudineæ*, are those of Desrheims, "Histoire Naturelle et Médicale des Sangsues," 8vo., Paris, 1825; and of Moquin-Tandon, "Monographe de la Famille des Hirudinées," 4to., Paris, 1827. By these writers, the genus *Hirudo* of Linnæus is elevated into a family, comprehending two subfamilies and eight genera. See Palmer's "Pentaglot Dictionary," Articles "Hirudinées et Sangsue;" and admirable descriptions and figures of "H. Sanguisuga et Medicinalis," "der Rossigel, und der Medicinische Blutigel," of the Germans are given in Jörden's splendid "Helminthologie der Menschlichen Korpers," 4to. 1802.

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knowledge of the anatomical peculiarities by which that valuable and extraordinary animal—the leech—is distinguished; or of the situation which it is destined to occupy in modern systems of zoology.

They who have perused with the interest which, as indicative of the present state of pathology and medicine in Spain, it is well calculated to inspire, our translation of Seco Baldor's "Memoir upon Phthisis," will turn with avidity to an analysis of a Spanish memoir on the leech. It is, indeed, a production alike honourable to its author and to the country whose scientific literature it is destined to enrich; and indicates a much more advanced state of medical zoology in Spain, than we had given that distracted country the credit of having attained.

The memoir is divided by the author into two parts; in the first he surveys the leech in its zoological relations; in the second, discusses the medicinal employment of this singular annelidan.

The characters of the red-blooded worms,—*gusanos de sangre roja*, or annelida,—*anillados*,—of Cuvier, are traced in the first part. By that illustrious zoologist, the class *Annelida* has been subdivided into three orders, according to the form and situation of the respiratory apparatus. In the *first* are comprehended the tubicolæ,—*tubicolas ó pinceles de mar*,—characterised by the presence of the branchiæ,—*branquias*,—in the form of tufts upon the head, and inhabiting, as their designation indicates, a *tubular* structure; in the *second*, the dorsibranchiata,—*dorsi-branquios*,—where these organs are placed upon the back; and, in the *third*, the abranchiata,—*abranquios*,—so designated as altogether destitute of branchiæ, and, consequently, believed to respire either by the surface of the body or through interior cavities connected with that surface by respiratory pores. To this last order principally belong the earth-worm and leech-families, *lumbricidæ* and *hirudineæ* of modern zoologists.

The leading or typical genus of the leech-family,—*hirudo*,—compreheads several species. Of these, that which is almost exclusively employed in medicine, and chiefly claims our author's notice, is the medicinal leech, *H. medicinalis*, of Linnæus; *jatrobdella medicinalis*, of Blainville; and *la sangsue officinale*, of other French writers.

After an exposition of the zoological characters of all the known species of genus *hirudo*, the author of the memoir especially devotes himself to an anatomical description of the medicinal leech. The body of this annelidan is soft, contractile, composed of numerous extensile rings, covered with a viscid matter, and terminated anteriorly by a slight cavity, composed of a certain number of segments, which constitute the oral sucker,—*cupula* of Savigny,—in the fundus of which is situated the mouth, exhibiting the horse-shoe figure. In the posterior part of the body exists another disc-like cavity, formed by dilatation of the last ring of the body, and denominated the anal (or caudal) sucker—*cotyla* of Savigny.

In the integuments which form the skin of the leech three several parts may be distinguished,—epidermis, corpus reticulare, and dermis. The muscles which they cover form a tunic of transverse fibres immediately adherent to the dermis. This covers other fibres longitudinally disposed; and beneath these, again, are others exhibiting a transverse direction. This interlacing of muscular fibres is indispensable to the movements of the animal, which the author describes with great accuracy and minuteness.

The intestinal or digestive canal commences at the oral sucker by a mouth, which is formed of two extensible labia, the superior more projecting than the inferior, forming a kind of anti-mouth,—*anteboca*,—which the animal forcibly applies to the surface whereon it is about to fix. The maxillæ are situated in the bottom of the mouth; the action of them may be seen upon pressure of the animal. The œsophagus leads to the stomach, which terminates in four intestinal cœca. The rectum is completely separated from the preceding portion of the intestinal canal by a sort of valve, and terminates at the anus, which is situated on the back, at the origin or root of the caudal sucker. The membranes, of which the intestinal canal is composed, and the functions which it is destined to perform, are then analysed, and the mechanism described whereby the skin is ruptured in the process of suction. Digestion must obviously be very tardy; since substances have been found in the intestinal tube of the leech, perfectly unaltered, some months subsequently to their deglutition.

The nervous system of the *Hirudineæ* consists of a series of ganglia, which extend from mouth to anus. It is situated below the intestinal canal, and from each of the ganglia proceed nervous filaments, which are distributed to the various organs. The experiments of the most eminent physiologists and zoologists upon the various organs of the senses, the existence of which in the leech has been the subject of controversy, are here reviewed by our author.

The circulating system of the leech is composed of four longitudinal vascular trunks; one dorsal and another ventral, separated by the intestinal tube which passes between them, and two lateral. All these not only communicate with each other by capillary vessels, which inosculate in the various organs whereon they are distributed, but by special branches, of large diameter, which Dugés has designated according to their several points of communication—abdomino-dorsal, latero-abdominal, and latero-dorsal branches.

The respiratory apparatus of the leech is constituted of two kinds of pouch, or sac, copiously supplied with blood vessels, forming an intricate network. These vessels result from subdivision of a branch which issues from the latero-abdominal set, and from a large vascular loop, denominated the pulmonary—asa pulmonar. On this plan is arranged a series of pulmonary vesicles, destined to perform the respiratory function, and thus the hirudineæ are endowed with the faculty of respiring through the whole surface of the body. On the chemical and vital phenomena connected with this function the curious experiments made by Messrs. Thomas and Milne-Edwards are here very clearly indicated.

With respect to its generative functions, the leech is, without doubt, an androgynous animal. Thus both sexes are united in one individual, without the power, however, of self-impregnation, possessed by divers of the invertebrated animals, which are real hermaphrodites. Fecundation, consequently, cannot take place in the leech, without the reciprocal concurrence of two individuals. The male and female organs are then anatomically described; and from their situation it is clearly inferred that copulation can only be effected by the union of two individuals, with the head of the one directed towards the caudal sucker of the other.

This portion of the memoir concludes with the observation, that the *hirudineæ* are dispersed over the whole surface of the globe, and exist in especial abundance in the marshy districts of La Mancha, Aragon, Estremadura, Gallicia, and the Asturias of Spain, and in those of Portugal and France. The reproduction of the leech is effected by sponge-like cocoons, each containing from nine to fourteen young.

The various methods of collecting and preserving the medicinal leech, and of remedying the diseases to which it is subject, occupy the commencement of the *second* part of the memoir. It is very probable, the Author thinks, that the leech has been known from the remotest periods of antiquity. Themison was the first physician in whose writings it has been mentioned; and, from a passage which occurs in one of the chapters of the eighth book of Pliny's great work, it is probable that the ancients were well acquainted with the uses of the leech for the abstraction of blood in various diseases; guided, peradventure, by the observation of the salutary effects of the hæmorrhage, consequent on the introduction of this annelidan into the mouth and fauces of the horse, while devouring the spring-herbage of the meadows, in improving the health and condition of the latter animal.

The various modes of applying the leech, and of obviating the difficulties frequently experienced in getting it to fix, and the selection of the most eligible site for its application, according to the character of the disease requiring it, are then discussed. With respect to the quantity of blood drawn on the average by the leech, the estimate of sixty grains, formed by Moquin-Tandon, and the Spanish writer, is, in our opinion, much too low. When it may become necessary to detach the leech, this object will be better attained by the application of tobacco or salt to the animal, than by violent separation, since, if its teeth should be left in the wound, they may prevent or retard cicatrization. The most effectual methods of suppressing the formidable hæmorrhage which sometimes results from the leech bite, especially in children, are then indicated.

On the controverted question, whether certain diseases may be transmitted from one individual to another, by the bite of the leech, our author unhesitatingly decides in the affirmative, and cites various facts in support of this opinion. The obvious inference is, that no leech which has been applied to the body of an individual labouring under

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any specific morbid affection, and especially in certain situations of that body, should be again used for medicinal purposes.

The interesting memoir of the Spaniard concludes with an enumeration and description of the various instruments which have up to the present period been invented as substitutes for the leech. Of this nature are the bdellometer, *bdellometro*,—of Sarlandière; the bdellophore, *bdelloforo*,—of Charpentière; the artificial leech, *sanguijuela artificial de los Ingleses*, of Johnson; and of other French and German inventors. None of these instruments, however, have been found to effectively supply the place of the medicinal leech.

Note.—Since the preceding analysis was written, we have met with two works in the English language, on *the Medicinal Leech*, of which we were then not cognizant: one entitled, "*Further Observations on the Medicinal Leech; including a Reprint of two Memoirs*," &c., by R. Rawlins Johnson, M.D., F.R.S., &c. 8vo. London. 1825; the other, *a Treatise* on the same subject, by John Hudson and Son. 8vo. Hull. 1841. The *first*, the production of the enlightened author, to whose former work we have adverted in our second note, possesses information highly valuable and interesting to the zoologist and medical philosopher. The *second*, without any claim to the character of a scientific monograph, supplies many facts, alike curious and useful, on the reproduction and economical management of the Medicinal Leech.—*Reviewer.*

FOREIGN CORRESPONDENCE.

FRANCE.

ALTHOUGH the influenza has, I am glad to say, laid aside much of its intensity, it continues to attack in immense numbers people of every condition, and under the most varied circumstances. No precautionary measures, however wisely devised or carefully executed, seem to have the least influence towards the prevention of the malady; and hence we are compelled to regard it as depending pre-eminently on atmospheric constitution. That constitution, however, is not exclusively "grippal." It is modified, or rather mixed up, with an almost equal dose of choleric influence—the remnant, probably, of the epidemic in 1849. It is curious to observe the influence of this combined epidemic constitution on the nature and march of disease. Great numbers of persons labouring under "grippe," are at the same time attacked by a species of cholerine, the bronchial symptoms predominating in some, the abdominal in others; while in all the affection is attended by a remarkable degree of prostration and adynamia. In many cases, likewise, the diarrhœa assumes towards its decline many of the characters of typhoid fever, the principal of which thus assumed are meteorismus, pain of the abdomen, rose-spots, and exacerbation of the febrile paroxysm towards evening; yet the disease does not run the course, nor present the termination, of typhoid fever. This latter malady itself has not escaped the prevailing influence, for it now appears under a form which had not been observed in France for many years; unless, indeed, we suppose (and this is the more probable) that the disease is typhus, not typhoid, fever. However this may be, the cases are marked by extreme prostration from the commencement of the attack, and by the appearance of large superficial purple spots, like those of scurvy, on the groins, abdomen, and insides of the thighs. Practitioners here are not acquainted with the differences between the specific eruptions of typhus and typhoid fever, so clearly demonstrated by Dr. Jenner, and confound all adynamic fevers under the name of "typhoid."

THE HOMŒOPATHS AND MESMERISTS

Continue to intrude themselves on public notice, with a perseverance worthy of a better cause. The doctrine of Hahnemann, it must be acknowledged, is making considerable progress here. For this progress many reasons may be assigned; but the principal one, I conceive, is that the prevalent system of regular medical treatment in France bears much analogy to the homœopathic one, being founded in an extreme reliance on the powers of nature for the cure of disease. The regular practitioner, however, eschews mystery, and employs not the false pretence of "infinitesimals," and this, at least, makes a great difference in his favour. "War to the knife" prevails, of course, between the contending parties. No regular physician will meet a globulist in consultation, and the Secretary of the Medical Society of the seventh arrondissement was expelled the other day, for having renounced the faith of his forefathers. The man had been treated with very great indulgence, repeatedly warned; and it was not until his quackish tendencies were openly manifested that the extreme measure of expulsion was applied to him. Even the Hahnemannic Society disapproved, in his case, of the practice of publishing pamphlets, "to be had at the author's house."

"Exemplo quodcunque malo committur, ipsi
Displicet autori."

People do not always find an advantage in deviating from the straight path.

As for the mesmerists, a regular "razzia," as they say in Algiers, was executed on them last week, when no less than seven-and-twenty worthies were apprehended and tried for illegal practice of the healing art. Strange that such clear-sighted prodigies, who can discover treasures in the bowels of the earth, and to whom futurity is opened, can neither see through the disguise of a *mouchard*, nor anticipate the fate that awaits them in a court of law. This, I suppose, is one of their mysteries. Another one is, how they can recruit dupes; for a more vagabond-looking set of scamps was seldom or never seen in judgment than these same followers of Mesmer. The trial was better than any play. A renegade clergyman, named Bellot, was at the head of the gang, and, when ordered by the judge to take his place in the dock, he refused, declaring "that he had an invincible repugnance against conspicuous positions." The gensdarmes had to force him into the dock; but scarcely had the names of the accused been called over, when a dreadful *sacarme*, or, as we would say, "skrimmage," took place in the body of the court. A lady culprit, it seems, had fainted; whereon Dr. Bellot insisted on handing her out, with the intention, doubtless, of tendering "leg-bail." A republican guard immediately seized the Doctor by the collar, to which the learned man responded by a thump in the eye, and by compression of the sergeant's throat, until vomiting of blood ensued. The mesmerist held as fast as a bull-dog, and could not be mastered until a reinforcement arrived, when he was at once marched off to prison.

The judge was occupied with a witness, who declared that he had been cured of "an incurable disease," by the application to his stomach of eleven bullocks' livers, according to the prescription of Madame Batard, when another row took place in the dock. A respectable old lady, finding the place too hot, shouted at the top of her voice, and like Sterne's starling, "I can't get out—I can't get out." On inquiry, it appeared that she had nothing to do with the affair whatever, but had been pushed into the dock, "in the name of the law," by an over-zealous soldier. Madame Senegal was, therefore, allowed to retire, amidst universal laughter, when the trial continued, and the various parties, being found guilty of illegal practice, were fined. They are, I fear, too strong for the law; at all events the temptation of gain is too great for the insignificant punishment awarded. Corruption, however, is not exclusively confined in this country to the lower strata of society; it is the prevailing vice of the upper classes. We have had many an example under the reign of Louis Philippe; and a recent one, affecting the President of the Board of Health, has caused considerable sensation here. Be it known, then, for the information of the public in general, and of Mr. Rogers in particular, that the difficult question of the disinfection of excreted matters has been completely resolved here without turf or charcoal. The Prefect of Police had authorised an application of what was considered the true system, and, for several weeks in the month of January, the disinfected fluids were pumped into the gullies, which, as you know, run above ground along the edges of the pathways. Now, as the aforesaid excretions were not disinfected at all, but, if possible, stank worse than ever, you may conceive to what a pass we had come, the more particularly as the depôt at Bondy had been given up, and there seemed no remedy. The President of the Board of Health, who is deeply interested in the success of a patent, has, it would appear, led the authorities astray, and the Government has been called upon to dismiss him. *Auri sacra fames.*

A very curious case, illustrating the effects of caloric on the human body, was noticed lately at one of our medical societies. A fire took place in a room where a man, completely drunk, lay asleep. He had fallen asleep in his clothes, and the bed, with the bedclothes, had remained untouched, yet the man was found dead, perfectly roasted on one side. His body gave out the smell of roasted meat, and the side next to the partition, which was burned, was described as "literalement cuit."

M. Caseaux has been elected member of the Academy of Medicine, in the section of Midwifery. At the Institut great competition exists for the place left vacant by Gay-Lussac, and several important chemical papers have been presented by the different

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candidates. None of the memoirs regard medicine; yet I cannot avoid recording, as a great scientific fact, the ocular demonstration of the diurnal movement of the earth, effected through means of the pendulum, by young Foucault.

GENERAL CORRESPONDENCE.

STRYCHNIA USED BY FARMERS AND OTHERS FOR POISONING VERMIN, &c.

[To the Editor of the Medical Times.]

SIR,—At page 361 of the last number of the *Medical Times* you have recorded an instance in which several valuable fox-hounds were poisoned at Annersley by eating articles of food contaminated with strychnine, those articles having been liberally scattered over the ground in several districts for the purpose of destroying vermin, &c. In commenting on this case, you say it is scarcely probable that strychnine could have been used, in consequence of its high price. I believe, however, that this circumstance does not exert any restriction whatever on the employment of this alkaloid as a poison; for, supposing that strychnia were sold at the rate of 40s. per ounce, a grain of it would only cost one penny, and that quantity would be sufficient to kill at least one person, and perhaps half-a-dozen rats. But, apart from this consideration, I know it to be a fact that strychnia is sold, often in large quantities, to the inhabitants of rural districts for the purpose of killing vermin, and I will mention a case in proof of this. Some time ago a countryman presented himself at the business house of a well-known firm in this metropolis, and inquired what was the price of their pure strychnia. The attendant, after regarding his customer with some surprise, answered the question; on which the farmer replied that he could buy it at a cheaper rate of a druggist in the country; and he added that the druggist purchased it at the very house where he was making his inquiries. This remark brought out the principal of the establishment, and he informed the countryman that the price would depend very much on the quantity purchased. "Why," said the man, "I want about twenty ounces of it." And sure enough he did, for when he marched away from the shop he carried with him poison enough to kill about 10,000 people; and, for aught I know, he might have been one of those careless persons who are in the habit of keeping their "markery" and other deadly drugs in the kitchen cupboard, where these poisons are not only liable to become accidentally mixed with articles of food, but where, from their being ready to hand, they are likely to be the means of occasioning a more designed danger. An inquiry into the quantity of strychnia sold by wholesale druggists, and a comparison of this quantity with the amount used in medicine will convince any one that the drug in question is employed for other purposes besides the cure of disease. A knowledge of this fact will show, moreover, that the Bill lately introduced by the Government for the purpose of preventing the crime of poisoning, ought to have embraced other substances besides arsenic. I am, &c., H. LETHEBY, M.B.,

Lecturer on Chemistry and Toxicology, in the Medical School of the London Hospital.

AMENDED CHARTER OF THE COLLEGE OF SURGEONS.

[To the Editor of the Medical Times.]

SIR,—Permit me to direct the attention of your numerous readers to the third resolution of the Royal College of Surgeons, as published in your journal of Saturday last. It is as follows:—

"3. That it is the opinion of this Council that the medical qualifications of those about to engage in the practice of surgery, or in general practice, should be tested by the Royal College of Physicians."

I do not for a moment suppose that the Council intended, in framing this resolution, (I object equally to the way in which they propose to carry out their fourth,) to insult the whole body of their members; but it appears to me that, if it be carried into effect, every well-educated member of the College must feel himself both degraded and insulted.

What, if the members of the Council feel themselves incapable, (but this cannot possibly be the case with *all* of them,—I fain would hope it is so only with a very small part,) are there not numbers of general practitioners, members of the College, and many of them, too, graduates of medicine of different universities, abundantly capable to test the qualifications in medicine and also in midwifery of candidates for the diploma of the College of Surgeons?

I am quite sure that from this class many, very many gentlemen may be selected who are quite as competent for the work as are to be met with among the *élite* of the College of Physicians. Now, this being the case, will it not be too bad,—will it not be too much like a "job," for the Council to pass over such men, that they may have the opportunity of obliging some three or four personal friends, or perhaps it may be only to pay a compliment to another body?

But the Council should recollect the old adage, "Be just before you are generous."

If there be a set of medical examiners appointed, they must be paid for their services And why should the most deserving of the members of the College be mulcted of so much pence, and the sum so extracted bestowed on foreigners?

By the term "foreigners," I do not intend in the slightest degree to disparage the physicians: far from it. I consider them well up to their work, and the College an ornament to the Profession.

I trust, now their attention is drawn to the subject, the members of the College of Surgeons will rise up as one man to protest against the proposed mode of carrying out these resolutions, and demand that the new examiners shall be selected from their own body, and have assigned to them places in the Council.

And here I may remark, that it would be well if the Council were to commence by appointing as examiners some of the members of the College who are at present acting as examiners of the Apothecaries' Company. The medical and surgical examinations might succeed each other, at intevals longer or shorter, as may be deemed advisable. The latter might include anatomy, physiology, surgery, and (by-and-by) midwifery. The former, chemistry, materia medica, botany, and the theory and practice of medicine. The fees for each examination might remain as at present.

By adopting some such plan as that I have proposed, the College would render itself what it is not now, a complete College of Surgeons; it would itself be elevated in the estimation of the Medical Profession throughout the civilised world; the odious and degrading name of "apothecary" would soon cease to be known; the great body of the Profession would be conciliated and satisfied; and much public benefit conferred.

If you should deem this communication worthy a place in your journal, I will take an early opportunity of showing how easily the plan may be made to work, as well as demonstrate how necessary a thorough practical knowledge of medicine is to every surgeon. And let me add, that I consider an hospital surgeon without it to be totally unworthy of the position he occupies, and incompetent adequately to perform his duties. I am, &c.,

E. A. LLOYD,

Bedford-row. Surgeon to St. Bartholomew's Hospital, &c. &c.

[The suggestions of our able Correspondent are deserving of the best consideration. There cannot be a doubt that a Charter, confirmed by Act of Parliament, giving powers to the College of Surgeons to conduct examinations in *all* the branches of medical knowledge, would be the true solution of the Medical Reform question. Events are tending to this result. There are minor questions necessarily involved in this arrangement, which may embarrass and retard such a consummation; but we do not think that they can ultimately prevent it. The time is, however, come for the Profession to bestir themselves. We cannot help observing that Mr. Lloyd does himself much credit and the Profession a great good, by openly appending his name to his communication, and thus giving to his opinions all the moral weight of his character and position. If other gentlemen would come forward in the same manly spirit the opposition of interested parties would speedily vanish.—ED. *Medical Times.*]

ON THE DUTIES OF A CORONER.

[To the Editor of the Medical Times.]

SIR,—It has been my lot to be placed in much the same unfortunate situation as your Correspondent "R.A.L.," (March 1,) for whose case you have expressed your sympathy, while deciding rightly that it does not come under a Coroner's jurisdiction, and "loth to recommend the law." Where, then, is he to look for redress? It would not be less foolish than wicked, did we feel ourselves called upon to do so by the usages of society, to take the law into our own hands, and resent every vulgar affront, or

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treacherous or base act. The majority of the Profession have not been schooled as Polonius' son:—

"Beware
Of entrance to a quarrel: but, being in,
Bear it that the opposer may beware of thee."

It would be doing the devil's work rather than pursuing, in a proper spirit, a divine calling. In such a predicament, then, without relief save what time and an easy conscience bring, it is a real satisfaction to have the sympathy of the editor of a journal, whose duty and inclination alike prompt him to animate the members of our Profession to a generous rivalry in high thoughts, fair words, and good deeds.

In 1845, an intensely painful circumstance happened to myself, only the more malignant as it wore the guise, together with all "forms, modes, shows," of fair and friendly intercourse. It occurred to me, then, that a remedy might be found in a "Court of Honour," a "Tribunal of Justice," and I entertained a hope that such a court, or tribunal, might be constituted of the leading members of the Profession. To this court all and similar acts of injustice affecting professional character could be brought by the injured party, with right to publish the decision. Thus the tongue of slander would be silenced, conviction brought home to the misguided friends, and truth vindicated. The very existence of such a tribunal of justice would deter the unscrupulous from such base acts. Alas! such an appeal should be found in our respective colleges.

I had been in attendance about a fortnight upon a patient suffering, as it seemed to me, from mechanical obstruction in the bowels. No tumour could be felt; the pulse was natural; habitual costiveness, with tumid and flatulent abdomen, unattended by pain, with scanty and small stools, were the marked symptoms. Various purgatives and injections brought no relief. A consultation was proposed. The individual named was the medical attendant of the sister's family. Leeches, followed by a large blister, were the means employed. The vomiting increased, and shortly becoming stercoraceous, our patient was fast sinking when, at my last visit, I took O'Beirne's hollow gum-elastic tube, (which was lying in the chamber,) and trying, in the gentlest manner, to pass it up the bowel as my patient lay on his right side, (for I did not like to disturb him,) it was arrested at about five or six inches up the rectum. Deeming it quite useless to make any further attempt without turning him on the left side, I desisted. The next morning after our visit the surgeon, (we had walked to the house the evening before arm in arm, he having taken my arm of his own accord,) to my horror and to my utter and never-ending astonishment, declared to the wife, in the presence of her sister and her sister's husband, that "I had, without consultation or his consent, had recourse to an operation which had caused the death of our patient!!!" (a) I will not attempt to convey the wife's feelings,—a weak, nervous creature,—or those of the brother and sister.

Astounded at the enormous untruth and reckless assurance, what was I to do? I demanded a *post-mortem*, and called on him to second this request. It was refused. He said it was not necessary. I went to the banker's, in whose employ the deceased had been many years a faithful servant. One of them used his best endeavours to get an examination, at which I had stated it to be my intention to secure the attendance of the late Dr. Lubbock, or Mr. Crosse. This proposal also failed. I spoke to a solicitor. "How, go to a jury without facts?" said he, "one man's opinion is as good as another's." The end was, that up to this time I have remained under the scandalous imputation, in the eyes of these misguided persons, and suffered whatever other professional injury that man's word could do me, who is of twenty years' older standing than myself. All I could do was to repudiate him; and again and again have I refused to meet him.

In silence and deep scorn I have borne the monstrous injustice, but with a quiet conscience that my detractor cannot have. And at this long interval of time, but for reading the case of your Correspondent, should not have made public this scandal on the Profession. This has again brought to my mind the suggestion, that out of the Profession should be constituted an appeal, so that, in cases where a Coroner's inquest is denied, the injured may find that reparation for which the uncertainty of law offers but a doubtful remedy. I inclose my card. I am, &c.

Great Yarmouth, Norfolk. J. B.

[Our remarks on the letter of "R. A. L." were confined to the legal bearings of the case; but we cordially agree with "J. B." on the expediency of a Court of Honour being established to investigate and decide upon breaches of etiquette similar to those denounced. The Profession have long felt the want of such a tribunal, and we hope that in any future legislative measure, powers will be given to a General Board to inquire into charges of unworthy professional conduct, and, if proved, to punish the delinquents by striking them off the register of their College.—Ed. *Medical Times.*]

(a) Our patient was, I think, not actually dead, but *in articulo mortis*.

THE HOMŒOPATHS.

[To the Editor of the Medical Times.]

Sir,—Dr. Wilks, unmindful of his resolution to treat me with the silence of contempt, has fired off a gun before departing on his travels. As it has done no damage, but was obviously loaded with blank cartridge, I suppose I should regard it as a parting salute.

"Adieu! he cried, and waved his lily hand."

Until he returns, I shall not expend any more ammunition on him.

In the same number of your journal in which Dr. Wilks's letter appears, there is one also from Dr. Inglis, who, I regret extremely to learn, has been suddenly called away from this scene of strife, and of aspirations after truth, which are at best but imperfectly realised.

Dr. Inglis was well known to your readers as a vigorous opponent of Homœopathy, and many a lusty blow he aimed at our system, for which we owe his memory no grudge, as we believe that truth is best elicited by such rough handling, as the bright sparks are struck from the hard steel.

The allegations and queries respecting Homœopathy and Hahnemann in Dr. Inglis's last letter—alas! that it should be his last—are such as require a reply; and, as you are aware, Sir, the substance of the following comments upon them was written before I knew of the untimely and unexpected decease of your late correspondent.

In Dr. Inglis's letter it is related that "Hahnemann commenced his career by selling to the German public a nostrum which he told them would cure every disease." Certainly this charge, though it cannot affect the truth of his homœopathic doctrines, which must be judged by experience only, is a serious imputation on his professional character and honesty, and on that account it is important to ascertain its truth or falsity; I would, therefore, like to know what authority there is for this statement, which I think I have seen made by others I have in my possession every work that Hahnemann wrote, from his first original publication, in the year 1784, up to the period of his death, except a few papers in various journals, which I have read, and I can find no allusion to anything like a universal remedy. Can it be that the only authority for the statement is a letter from a Dr. Mühry, of Hanover, published in the 22nd volume of Forbes's "Review?" If so, I may be permitted to ask, who and what is this Dr. Mühry, and why is his bare assertion to be received as the warranty for what I believe to be an atrocious calumny? Dr. Mühry's words are: "Previously, he had deceived the world, by selling at a high price, under the name of *pnæum*, a nostrum which consisted of nothing but *borax*. * * * He had before this published a Pharmacological Dictionary (Apotheker-Lexicon)," &c. I can testify that the word *pnæum* never occurs in the whole course of Hahnemann's writings; but the improbability of Dr. Mühry's tale is rendered more apparent by this, that the Apotheker-Lexicon was published by Hahnemann in 1795, and the following year he published his first essay on the homœopathic principle. In 1795 he also published the second part of a volume of highly philosophic essays, chiefly on hygiene, which breathe throughout a spirit the very reverse of quackery. If there be any other authority for this accusation, I should much like to be informed of it.

In Dr. Inglis's letter we are asked if we can "produce one single case of *goitre* caused or induced by the use of *iodine* in a healthy subject;" and a symptom is quoted ascribed by Jahr, in his "Manual," to iodine, viz., "*hard and large goitres.*" Now, every one at all conversant with our system knows, that it is not possible nor necessary that the medicines we employ should have actually produced on the healthy subject all the diseases for which we use them. We are guided to their therapeutic uses by the *hints* they evince on the healthy of their specific powers. The symptom quoted is, like too many others in Jahr's "Manual," an incorrect abbreviation of the original in Hahnemann, which is, "Enlargement and painful induration of the goitre," and is derived from an essay by Coindet, of Geneva, the introducer of iodine into medical practice. I may mention, that Coindet is not the only one who has noticed an increase in the size and hardness of the goitre under the use of iodine, before its curative action commenced.

It has been frequently asked, and is here also demanded, if any

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men of acknowledged fame are to be found in the lists of homœopathic believers. Human nature is apparently the same as it was eighteen centuries ago, when a similar question was triumphantly asked, "Have any of the rulers or of the Pharisees believed?" In a precisely similar manner was the truth revealed by Harvey received. "There is not a physician in Europe who believes in this pretended discovery," it was then said; and so it has fared with every truth—with every discovery.

Still, in spite of the improbability of men of acknowledged fame running the risk of losing their reputation by joining an unpopular and derided cause, there are amongst us a few men of some celebrity (if their occupation of chairs in Allopathic Universities can give them a claim to be considered as such.) I may mention Dr. J. W. Arnold, late Professor of Pathology at Zurich; Dr. J. Maly, Professor of Materia Medica at Grätz; Dr. Zlatarovich, Professor of Materia Medica at the Joseph's College, Vienna; Dr. Lamprecht, Professor of Midwifery at Padua; the late Dr. D'Amador, Professor of Pathology at Montpellier; Dr. Henderson, Professor of Pathology in Edinburgh. There are many more in the collateral sciences, but those I have mentioned will suffice.

Hufeland, who has been termed the Nestor of Medicine, formed a different estimate of homœopathy and homœopathists from that formed by the generality of its present opponents. He says, in a special pamphlet, published by him on the subject in 1831, "What led me publicly to notice homœopathy was partly the esteem I have long felt for the founder, in consequence of his earlier writings and his important services to medical science, and partly because, amongst those who acknowledge the practical truth of homœopathy, I found the names of many worthy men, who were incapable of being biassed by any prejudice. I need only allude to President Von Wolf, of Warsaw; Medical Councillor Rau, of Giessen; and Medical Councillor Widnmann, of Munich." "It cannot be denied," he adds, "and I have been convinced, not alone by the experience of other estimable men, but also by my own observation, that homœopathy has not unfrequently been of use, sometimes remarkably so, and that even after the fruitless employment of other powerful modes of treatment."—Hufeland, *Die Homöopathie.*

Although incurring sacrifices for a cause could not prove the truth of that cause, but only the sincerity of the partisan, yet I could, if it were not too delicate a subject for a public journal, mention several who have resigned "a fairly remunerating legitimate practice," for the sake of practising homœopathy, who have suffered pecuniarily by the change, (not to speak of the sufferings a sensitive mind must endure from the sneers and ridicule of former colleagues and friends,) and who are yet among the most zealous adherents of homœopathy.

But, even though it could be proved that all homœopathists were disappointed practitioners on the old system, (which is far from being the case,)—though it could be proved that not a single person of acknowledged fame has adopted homœopathy—though it could be proved that Hahnemann was as quackish and dishonest as I believe him to have been true and good,—all this could not affect the truth of the homœopathic doctrine, which must be tried on its own merits alone, and refuted experimentally. Nothing would give me greater pleasure than to read some real arguments against homœopathy; and so little is there of the thick-and-thin partisan in my disposition, that if any one will show me that homœopathy is wrong, and will point out a better, surer, more successful, and more *rational* mode of treatment, I shall without hesitation, without regret, discard my homœopathic faith, and joyfully adopt the system which experience shall show to be superior to that I now practise.

With many apologies for the length of this letter, and thanks for your courtesy in admitting my former ones,

I am, &c., R. E. Dudgeon, M.D.

Gloucester-place.

IRISH MEDICAL CHARITIES.

[To the Editor of the Medical Times.]

Sir,—I feel called upon to thank you for the able article in the *Medical Times* of the 22nd of March, which does justice to the claims of the county infirmary surgeons of Ireland, for consideration in any legislation that may take place as regards the Medical Charities Bill.

There is one sentence in which I cannot agree with you, namely, "to omit the county infirmaries, would render the Bill ineffective as a great sanitary measure."

I know that to be the opinion of Sir William Somerville, the framer of the measure; but I also know that it is the opinion of very many persons quite as capable of coming to a right conclusion, that many circumstances in the state of Ireland require the maintenance of such institutions as the present county infirmaries, particularly for that very numerous class of persons who, though *not paupers*, are yet unable to procure the necessary medical and surgical aid when labouring under serious disease or accidents, especially those requiring operation, or the application of such experience as the practice of a large hospital generally produces.

It is the almost unanimous desire of the infirmary surgeons, that these institutions should be exempted from the provisions of the Medical Charities Bill, and be permitted to continue, as they have for a long series of years,—I believe ninety,—to be supported by county presentments, assisted by donations and subscriptions, and governed by a resident gentry, who have shown their estimation of the value of their county infirmaries, by their donations and superintendence. In many instances large sums of money have been contributed towards the erection of the present buildings, which, in many respects, will bear comparison with some of the provincial hospitals of England. In the instance of my infirmary, the Louth, the gentry contributed 1600*l.* towards the erection of the present building, which can accommodate fifty-four patients.

No instance has yet occurred in which the governors have expressed any desire to transfer the management of these institutions to other hands, nor have any of the grand juries, or rate-payers, at Presentment Sessions, exhibited any unwillingness to provide the necessary funds from the county cess, except in the case of the Mallow Infirmary; nor has a single petition, that I am aware of, been presented to either House of Parliament in favour of their being supported out of the poor-rate. The tenure of some of the infirmaries is such, that should they, at any time, cease to be *county* establishments, they will at once revert to the owners of the soil.

In several parts of Ireland gentlemen have educated their sons with a view to their being elected surgeons of their respective county infirmaries, which appointments have at all times been considered objects of ambition to well-educated surgeons, and have generally led to the attainment of the principal practice of the neighbourhood, and the confidence of the gentry and the poor who have been thus benefited by the experience acquired by these surgeons. The infirmaries have been good schools for the preliminary education of young men, many of whom gratefully acknowledge the sound *practical* information they have therein acquired, by which the public is again benefited.

It is to be regretted, that, in consequence of long-projected changes, and the operation of the poor-laws, as affecting medical appointments, the mode of election and remuneration for arduous services, the public generally, and the gentry in particular, for the last few years, have not shown the same disposition to place their sons at the Profession, the status and emoluments having been reduced. The consequence will certainly be, that hereafter the public will not have the same class of well-educated gentlemen to select from in making appointments to public charities, or for the care of themselves and families. The most serious and difficult surgical operations have been successfully performed in the county infirmaries, and it is with just pride affirmed, that no well-founded instance of abuse or malpractice can be adduced against these hospitals, their governors, or surgeons

To show that the framers of the Bill do not really believe that the exclusion of infirmaries would render the Bill imperfect, I have only to state the fact, that the Meath Hospital, which is the *County of Dublin Infirmary, has been excluded*, clause 10 of the present Bill.

It is contended that the *other* county infirmaries are equally entitled to consideration, being as well conducted, and in the enjoyment of the same amount of confidence in their several counties. The only difference that exists is, that in the County of Dublin Infirmary, the medical officers enjoy the *valuable* privilege of *self-election*, in consideration of their appropriating to the funds of the Institution the usual Treasury grant (89*l.* 1s. 10d.)

Though we thus object to our hospitals being placed under the poor-laws, we do not, for one moment, contemplate that they should not be inspected in the manner pointed out by the Medical Charities Bill; on the contrary, we court inspection, as we have ever done, and on this point would only respectfully suggest, that the Commissioners and Inspectors appointed should be men of standing in the Profession, who have *practical* knowledge of the general management of hospitals in all their departments, and have acquired the respect and confidence of the public and their professional brethren. It is confidently asserted, that the selection of persons not possessing these essential qualifications for office, will fail of producing the advantages to be derived from well-regulated supervision and inspection.

If it is proved that such exclusion as we desire is impracticable,

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we are prepared to give every assistance in our power to render the Bill useful to the sick poor and the public, and will use our influence to have those clauses amended, which, in our estimation, on mature deliberation, fail to *secure* to the *present* holders of office that certainty of re-appointment and remuneration for services required, to which they are justly entitled.

In those cases in which, from position, distance, &c., the benefits of the present hospitals cannot be extended to the inhabitants of remote localities, of course additional ones should be erected, or wards might be attached to distant dispensaries, for the care of such cases as could not be safely removed to the County Hospital, Such arrangements might be made without upsetting the present system, and it is contended would prove much less expensive than the proposed plan of erecting *numerous* district hospitals, each of which would require a staff of officers and servants, whereas the present hospitals, with the same number of officers, and a small addition of servants, might be made available for a greater number of patients.

It is considered that it would be an act of justice that the treasury grant (89*l.* 1*s.* 10*d.*,) should be continued to the present infirmary surgeons as an acknowledgment of past services, many of them having served for upwards of thirty years; and where those services are required, that they should, notwithstanding, receive such salary as may be appointed for attendance on district hospitals.

It is also suggested, that a clause should be inserted, giving a right to the present holders of office of a retiring allowance, when incapacitated by age or infirmity, according to length of service, to be paid out of the treasury grant, intended to be guaranteed by the Bill, as we know to be the case in all other departments, civil and military, especially in municipal arrangements and the proposed Fiscal Bill.

In the admission of patients as proposed in the 18th clause, there is great danger of the district hospitals becoming mere supplementary poor-houses for the relief of old chronic and incurable diseases, not absolutely requiring hospital care, but which could be equally well attended at the several dispensaries, or in the poor-houses, and who may be *ordered* in by any of the numerous persons possessing such power: some of whom, it is not unreasonable to expect, may be of that class who would think themselves justified in quartering their poorer relatives and dependants on these hospitals for an unlimited time, in preference to sending them to the poor-house, to the exclusion of many urgent cases absolutely requiring the aid so usurped by unworthy objects, and who may, in consequence, be lost or seriously injured. The proviso at the end of the clause does not remedy this defect.

The surgeon, who alone can be the proper judge of such, should have the power of *selecting fit* cases from amongst those *recommended* by the governors, &c., on his own responsibility. He should also have the power of discharging patients for misconduct or other causes. This mode is now very generally adopted, and is found not to be attended with any real hardship, the governors willingly leaving the selection to the medical officers, they themselves not being competent judges, confident that the trust so placed will not be abused, but that the most urgent cases will be admitted.

I fear I have extended this letter to an unreasonable length, but as I proceeded I found I could not condense into a smaller space all that was necessary to state, that the whole case of the county infirmary surgeons might be fully explained, and some reasons given for the opposition they have considered themselves justified in giving to the late Bill.

From the kind interest you have already exhibited in their cause, we are induced to hope, that you will use the influence you possess in still further urging their claims. I am, &c.,

E. G. Brunker, M.D., F.R.C.S.I., &c.,
Dundalk. Surgeon to the county of Louth Infirmary.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. Hodgson, Esq., President, in the Chair.

CASE OF NECROSIS OF THE BONES OF THE CRANIUM, AND REMOVAL OF LARGE PORTIONS THEREOF.

By JOHN DRUMMOND, Esq., F.R.M.C.S.,
Deputy Inspector of Hospitals, Melville Naval Hospital, Chatham.

In 1845, a seaman belonging to H.M.S. Mutine fell down some stone steps at Sierra Leone, receiving a contused wound of the scalp, for which he was admitted into the Royal Naval Hospital at Plymouth in October of the same year. The bone, which was not supposed to have been injured, was then found to be denuded of its pericranium to some extent, (left side of occipital.) After an attack of erysipelas, followed by numerous purulent deposits under the scalp, necrosis went on rapidly; there was oozing of pus from beneath the diseased bones, gaping of the coronal and sagittal sutures, the brain pulsating very distinctly in the spaces. In July, 1846, he was removed to Melville Naval Hospital, Chatham. During the six years he has been under observation, there have been repeated attacks of erysipelas, followed by profuse suppuration. Both tables of the bone have suffered in some places; in others only the external. About five square inches have been lost from the right side of frontal, right parietal, and squamous part of right temporal. The whole of the occipital to within a short space of the foramen magnum is deficient, with the exception of about two inches in the centre of the bone, which are now undergoing the process of separation. On the left side there has been less destruction of the bones, but extensive caries is going on there, and fetid pus is being discharged from several openings. At no point does there appear to have been any tendency to reproduction of bone or arrest of the disease.

Dr. Webster observed, that the case just narrated was of very rare occurrence, and showed how extensively the bones of the skull might exfoliate, and yet the mental faculties not be impaired. Other cases of great interest might however be cited, where very extensive disease of the skull existed with a similar result. Many years ago,—about eighteen,—there was a man in Bethlem Hospital, a criminal lunatic, who was very violent and suicidally disposed. During the absence of the keeper, he placed the back of his head on the fire, and, before he could be rescued, the hairy scalp was completely destroyed. He was, in consequence, under the care of Mr. Lawrence, through whose skill he recovered, but his sufferings were very great, the soft parts being entirely lost, and a large portion of the bone, as large as the bottom of a basin, ultimately exfoliating. The man survived this for nearly nine years, but there existed a hernia cerebri at the part where the bone was deficient, up to the time of his death. If this part were pressed upon he became insensible, and it was remarkable that, although prior to this dreadful injury he was exceedingly violent, and used frequently to butt with his head against the walls, he never did so afterwards, but became much more tranquil than he used to be. When the head was examined after death, the part where the bone was lost was found to be filled up with a dense, firm structure, in which the dura mater and the external structures were inseparably blended. The preparation will be found in the museum belonging to St. Bartholomew's Hospital. During the remainder of this man's life, to prevent injury to the brain, he wore a strong cap over the seat of the mischief. Dr. Webster then alluded to a case recorded lately in the *American Journal of the Medical Sciences*, where a large piece of iron, weighing upwards of thirteen pounds, passed through a man's skull, and yet he ultimately recovered. He concluded by remarking that, in some cases, persons may survive very extensive injury to the skull; while in others a comparatively slight accident may produce a fatal result.

Mr. Shaw exhibited two crania, to show the progress of disease when affecting those bones, and the mode of reparation. One of these had belonged to a man who was upwards of twenty years ago in the Middlesex Hospital. He was fifty years of age when admitted, and was then suffering from scrofulous lupus, which first attacked the face, and afterwards extended to the cranium. Suppuration took place, abscesses formed and burst, and large pieces of bone came away, varying in size, so that the pulsations of the brain were distinctly visible. The disease in this man was cured, and he did not present any cerebral symptoms for twenty years afterwards, when he had hemiplegia, and after that some difficulty in micturition, which was at first attributed to the palsy, but was afterwards discovered to depend on enlargement of the prostate gland. He died from peritonitis. The *post-mortem* examination showed ramollissement of the brain, and a small tumour in the prostate, contained in a distinct sac, about the size of a hazel-nut, which had constituted the impediment to the discharge of the urine. On examining the calvarium, the openings left in it by disease were found to be partly filled up by bony deposit, and partly by membrane, to which the scalp and dura mater were firmly adherent. There has been a question as to the formation of new bone in the membrane filling up the apertures left by disease, but in this case he

thought there could be none, as at first the great extent of the openings was filled up only by membrane, and subsequently bone was deposited. Through the kindness of Mr. Quain he was able to show them the second specimen, which had been taken from an elderly man, deceased from a compound fracture of the leg. Forty-five years previously he had had a severe injury to the skull, and large portions of bone came away. He was a mere boy at the time, and could not recollect much about the accident. The openings were filled up in part by membrane, and partly by new bone. It was evidently new bone, and not a part of the old bone, which had escaped from injury.

Mr. Hodgson remarked, that it was evident, that in these cases, the process of reparation was very different to that which occurred in disease of the long bones, and he thought it was a beneficial provision of nature to prevent the bad effects that might follow pressure. When large portions of the skull have been lost,—and he had seen several such cases, the aperture was not filled up by osseous deposit, but by a kind of ligament or fibro-cartilage, with points of bone in it; the edges of the openings being fined off, to prevent the effects of pressure on the brain. A similar condition also obtained in injury or disease affecting the patella, olecranon, or vertebræ. He considered that the cases described that evening were good illustrations of the manner in which injury to the cranial bones was repaired.

OBSERVATIONS ON THE TREATMENT OF ANASARCA, OR GENERAL DROPSY, BY PUNCTURING THE LEGS.

By JOHN HILTON, Esq., F.R.S.,
Surgeon to Guy's Hospital.

The author's object, in bringing forward this communication, is to suggest the more frequent employment of puncturing the legs in appropriate cases of anasarca depending upon visceral disease. After referring to the use of this remedy, without due precautions being observed, and the very probable mischief likely to supervene in such a case, the author states that his experience has convinced him of the great relief which anasarcous patients manifest when the fluid is allowed to escape from the areolar tissue of the body through artificial openings; and that when the operation has been done with caution and due consideration, it is not usually followed by unfavourable consequences. The instrument recommended to be employed (of which there was a drawing sent round) may be described as a very narrow, sharp-pointed lancet. Two, or sometimes four, punctures should be made by it in the outer side of the thigh, by passing it obliquely through the subcutaneous areolar tissue, so as to reach, but not to wound, the fascia covering the muscles; the limb, or limbs, if both have been punctured, to be immediately wrapped separately in warm blankets; these to be renewed often enough to prevent the limb becoming cold or chilled by the accumulation of the exuded fluid around it. Should the delicacy of the patient's skin, or any apprehension regarding the chemical character of the effused fluid, lead to the supposition or probability that the skin might become excoriated by the fluid running over it, then it is advisable to use capillary conductors in the form of worsted threads, so arranged as to pass over the punctures, and thence into proper receptacles, so as to keep the limb dry. After alluding to the continuity of the areolar tissue of the whole body, and expressing his belief that the infiltrated areolar tissue within the body, as well as that of the exterior, may be drained effectually by making punctures in the lower extremities, the paper explains the method of relief which is obtained, viz., that by freeing the subcutaneous areolar tissue of fluid, room or space is given for the external veins to become distended with blood, so as to relieve internal visceral congestion, and prevent effusions of fluid into the serous membranes, which produce great distress and death. The author states his conviction, that such fatal serous effusions are mainly the result of a passive congestion in the internal veins, and not of an inflammatory condition of the serous membranes; and that the surest method of preventing the occurrence of internal dropsy is to allow the venous congestion to take place upon the exterior of the body, where it produces a dropsical state of the subcutaneous tissue, and from which the fluid may be removed by artificial punctures through the skin. One of the chief reasons adduced for believing that such dropsies, whether within the body or upon the exterior, are the effect simply of venous congestion, is, that they may be imitated after death by injecting any afferent bloodvessel with water, and intercepting its return through the efferent blood-vessel, when escape of water occurs through the walls of the blood-tubes, and induces a dropsy of the parts. Other observations were made, explaining the *rationale* of the relief afforded to the heart, lungs, brain, and spinal marrow, by puncturing the legs in cases of anasarca. Towards the conclusion of the paper the author says, that having seen, in very numerous instances, extreme relief given to anasarcous patients by puncturing the legs in the way described, and only in a few examples any important inconvenience, and still more rarely, if proper precautions have been taken, any danger from it, except as a part of the patient's general condition, he feels himself justified, from personal experience, in recommending a more frequent adoption, in appropriate cases, than usually obtain in practice.

Dr. C. J. B. Williams fully concurred as to the great advantage resulting from puncturing the legs in cases of anasarca, but he entertained a doubt respecting the explanation, which was based too much on mechanical grounds. There would not be extensive anasarca, without a considerable alteration of the condition of the blood; there would be retention of the excrementitious matter, and a larger proportion of the watery principles in it. Wherever there exists organic disease which will terminate in dropsy, the circulation becomes affected, the functions of the secretive organs are impaired, and the distressing symptoms connected with the internal organs are produced. Experiments had been made with a view to determine the presence of excrementitious matter in the fluid effused, and in the serum exuded from the legs or contained in the abdomen. Urea had been found in large amount, and in some cases even biliary matter had been discovered. In proportion to the amount of excrementitious matter in the serum, so was the relief from the punctures; and he would therefore suggest that they might be regarded as excreting organs, supplying the place of those which had been deranged by long-continued disease. In some cases, the serum discharged or removed from the body had a strong odour of urine, so that it was difficult to decide between them. This occurred principally in renal disease; but he believed that, when dropsy is of long duration, there is always more or less renal disease.

Mr. B. B. Cooper thought that the difference between the doctor and surgeon in this case was, that the latter regarded that as an effect of the dropsy which the former looked upon as a cause. If he understood the paper aright, Mr. Hilton asserted, from the communication of the areolar tissue all over the body, that when anasarca occurs, the fluid is spread over it, so as to compress the secerning organs, and thus add to the existing disease, loading the serum with excrementitious matter. He believed that Mr. Hilton so far agreed with Dr. Williams as not to regard the effused fluid as merely serum, but that it might contain one or more kinds of excrementitious matter.

Mr. Hilton had no objection to the views advanced by Dr. Williams; they would not in any way militate against his plan of treatment. He was quite aware that the secretions of the liver and kidneys have been found in the serum drained from anasarcous legs, and equally certain that anasarca could not long continue without interfering with the healthy condition of the blood.

Dr. Black made some remarks confirmatory of the views advocated by Dr. Williams and Mr. Hilton.

Dr. Snow believed that the benefit from punctures in the first instances must be mechanical only. He could not see how this fluid could be regarded as a secreting organ; it could not excrete urea as the kidneys do, and so purify the blood; but the removal of the fluid, by lessening the general venous congestion, might also diminish that of the kidneys; and thus, if the disease were not very far advanced, the urea might be excreted by its own secerning organs, and then improvement of the health might follow for a time.

AN ACCOUNT OF A CASE OF FRACTURE AND DISTORTION OF THE PELVIS,

COMBINED WITH AN UNUSUAL FORM OF DISLOCATION OF THE FEMUR.

By CHARLES HEWITT MOORE, Esq.,
Surgeon to the Middlesex Hospital.

James Thomas Horsfield, a stone sawyer, had been crushed several years before death beneath a piece of timber. At the age of 60 he died of disease of the heart and kidneys, under the care of Dr. Seth Thompson, in the Middlesex Hospital. In addition to the immediately fatal disease, the bones were found thickened, heavy, coarse, rugged, and porous; the intervertebral substances composed of calcareous matter and soft cartilage alter-

nating; and the arteries almost everywhere, and the valves of the heart, covered with calcareous matter.

The left os innominatum was broken across the acetabulum, the right just in front of it. The ischio-pubal ramus was broken on both sides. None of the fractures had united, though considerable masses of callus had been furnished by the reparative process. The left bone remained in three fragments, corresponding almost precisely with its original segments; the right was broken in two. The head of the left femur had been driven between the fragments of the os innominatum fairly into the pelvis, and lay only half an inch below the promontory of the sacrum. Its trochanter fitted into a shallow excavation which it had gradually worn on the outside of the ilium, and the joint was constituted by the thin edge of the ilium and the top of the shaft of the femur, close to the trochanter. A partial new socket had been formed by the expanded ends of the pubes and ischium. The body of the left ischium was displaced considerably inward, but no material change had taken place subsequently to the injury in the form of the bones on that side of the pelvis.

On the right side the hip joint was sound, and of course had been more used than the left. The shaft of the right femur, moreover, was removed further from the centre of gravity than the left, by the whole length of its head and neck. Hence the spine, in transmitting more weight to a greater distance, curved forward and to the right in the lumbar and upper sacral regions; whilst the acetabulum, unsupported in front because of the ununited fractures of the pubes, became elevated towards the depressed spine and promontory. Partly from the inordinate pressure, and partly from some softness which disease at one time probably induced in the bones, those structures had yielded, the ilium became bent above the sacro-sciatic notch, and the lateral mass of the sacrum lost three-fourths of an inch of its natural breadth. The inlet, cavity, outlet, and sacro-sciatic notch on the right side were consequently much narrowed, and the promontory of the sacrum was only one inch and a quarter distant from the pelvic surface of the right acetabulum. The ischium was pressed inward and upward, and encroached on the pelvis and perinæum, and the symphysis pubis was thrust to the left of the mesial line.

In his remarks the author, referring to the interest of this case, in its relation, first to midwifery, mentioned that there were three instances on record of an obstruction in the pelvis similar to that on the left side of this pelvis; he called attention to the deformity on the right side, viz., the gradual elevation of an acetabulum unsupported by a fractured pubis in front, as unprecedented. But the chief interest of the case was surgical. Months, or a year or two after an accident to the pelvis, and when all seemed well, shortening and inversion of the thigh on the injured side would take place, together with an increasing inconvenience in the perinæum. Such symptoms would be explained by the state of the right side of this pelvis, the acetabulum and ischium being pressed up, and the former acquiring a more anterior aspect the more it was raised. On the left side the limb was shortened more than two inches at the time of the accident, and was now capable of free abduction and moderate flexion, but no extension or circumduction. After pointing out the difference between the symptoms of this accident and those of other accidents with which it might have been confounded, the author concluded with some remarks on the disease of the bones, and the remarkable fact of the precision with which the line of the fractures in the left acetabulum and right ischio-pubal ramus followed the course of the original sutures.

The time of the meeting having elapsed, no remarks were offered upon this paper.

MEDICAL SOCIETY OF LONDON.

Dr. Murphy, President, in the Chair.

ULCER OF THE OS AND CERVIX UTERI.

A married lady, aged 27, mother of three children, always regular, except during her pregnancies and lactation, observed for some time the menstruation to be preceded and followed by leucorrhœa, and to become scanty and irregular. Her last period was on December 7. By the middle of January she perceived her abdomen and breasts begin to enlarge, and she experienced all the usual symptoms of pregnancy in a marked degree, the leucorrhœa still continuing. Her sufferings being great, and having much dread of their increase during the later months of her pregnancy, she consulted Dr. Ward; his opinion was that she was not *enceinte*; and, as she was still incredulous, Dr. Murphy's opinion was taken to the same effect. A third period having passed without a return of the menses, and all her symptoms being aggravated, Dr. Ward examined her, first digitally, and next with the speculum, as he found the os patent and softer than natural. This revealed the existence of a granulated ulcer surrounding the os, from which flowed a viscid puro-mucous secretion, and a dusky redness of the cervix. The emollient remedies recommended by Dr. Murphy having been ineffectual, lunar caustic was applied to the ulcer on the evening of the 26th instant, without producing the slightest pain, and almost without any sensation; and the next day menstruation returned, and continued for thirty-six hours—the first portion passed being clotted. Since then, the leucorrhœa had returned, but in diminished quantity.

FUNCTIONAL DISEASES OF THE UTERUS.

Dr. Snow Beck read a paper on the Symptoms, Diagnosis, and Treatment of the Functional Diseases of the Uterus. After giving the full details of an interesting case of chronic inflammation of the uterus and vagina, occurring in a virgin female, aged 26 years, and who had suffered from congestion of the uterus from the appearance of the catamenia, at sixteen, with two intercurrent attacks of acute inflammation of the uterus, he proceeded to examine the deductions which might be drawn from the facts which were thus before the Society. He pointed out that the history was important, as showing the administration of steel medicines, with the view of "bringing on the menses," was injurious, as leading to a perpetuation of the congestion, from the direct stimulant effect of the iron on the uterus; whilst the apparent error in diagnosis which occurred during the attacks of inflammation,—the one being called "bilious fever," and the other "partly erysipelas,"—caused the original disease to be overlooked, and thus, being left to the restorative efforts of nature, was only partially subdued, and remained in a chronic form, seriously affecting the general health. The symptoms which were present were divided into direct constitutional and local symptoms; the direct including the pains in various parts of the body, the menstrual functions, and the vaginal discharge. After detailing the pains which were present in this case, he showed that the situation of these pains was beautifully and scientifically explained by a reference to the anatomy of the nervous system of this organ. After demonstrating, from preparations, that the uterus was supplied at the lower portion by branches of the spinal nerves derived from the lumbar plexus, the symptoms present in the case were referred to, as showing that one class of the pains were seated in the parts supplied by the nerves from the lumbar plexus; viz., in the lumbar region, the sides of the abdomen, and the inside of the thighs, being reflected from the uterus through the spinal cord, along the nerves arising from the same part of the cord that gives origin to the uterine nerves. The preparations were again appealed to as showing that the vagina was furnished by nerves from the sacral nerves, whilst the symptoms present in the case denoted that the pains reflected from this organ were seated in the branches of the sacral plexus,—to wit, the sacral region, the hips, and posterior part of the thigh; thus affording a beautiful application of minute anatomy to the diagnosis of diseases at the bedside, as well as proving, by the manifestations of disease, the correctness of previous anatomical investigations. The condition of the menstrual function was shortly considered, whilst the mucous and purulent discharges were pointed out as arising from the vagina, and not indicating any disease of the uterus itself, although they might be combined with it. The constitutional symptoms indicated that the nervous and digestive systems were chiefly implicated in the diseased actions; and, after considering these somewhat fully, and showing that the abdominal organs were furnished with spinal nerves from the same parts of the spinal cord as supplied the uterine nerves, the following conclusions were deduced from the consideration of this case:—

1. That the symptoms by which uterine disease is recognised are chiefly referrible to derangements in the nervous system, which consists of,—

(a) Pains reflected from the uterus to various parts of the body.

(b) Irritation of the spinal cord, and its prolongations into the brain, communicated to these organs through the spinal nerves distributed to the uterus.

2. That the reflex pains which have so much puzzled the physiologist and the pathologist, are beautifully explained by attention to the anatomy of this portion of the nervous system.

3. That next to the nervous system, the organs seated in the abdomen are those which are chiefly implicated in the derangement.

4. That the derangement of these abdominal organs may be explained by the irritation of the uterine nerves being reflected through the spinal cord, along the spinal nerves distributed to these organs, and which nerves arise from the same part of the spinal cord as do the uterine nerves.

5. That the respiratory and circulating systems do not suffer

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from uterine disease, until this disease has existed a sufficient length of time to derange the general nervous system or the general health.

6. That the immunity of these systems may be explained from the fact, that the nerves which are distributed to them arise from the spinal cord, or its prolongations, higher up than the uterine nerves, and are hence not implicated in the reflex phenomena which exist.

7. That the general health finally becomes implicated by the want of appetite, the deranged digestion, the want of sleep, the little which is gained being disturbed by frightful dreams, and the constant state of irritation and pain which the patient habitually suffers, and which is greatly increased for several days at each catamenial period.

8. As a corollary to these propositions, may be added, that when we remember that the organ under consideration is destined to have a periodic afflux of blood to it, to take on greatly increased arterial action, and to undergo wonderful enlargement as a physiological condition—all apparently designed by nature to occur without implicating the general health of the female—we have a reasonable explanation why the diseases of this organ should affect the general health so little as they do.

The diagnosis from anæmia, rheumatism, disorders of the digestive system, diseases of the kidneys and ovary, were glanced at; whilst, from the absence of the least trace of excoriation or ulceration, this case, of itself, was considered sufficient to show that the symptoms which have been stated to indicate ulceration, and which were here strongly marked, do not indicate this morbid lesion; indeed, that there was no satisfactory proof before the Profession that ulceration was ever present in the virgin.

The treatment, which consisted of rest, warm hip-baths, local application of leeches, mild antiphlogistic remedies, combined with small doses of blue pill and henbane at night, and acetate of lead lotions, was perfectly successful in reducing the disease, after which the general health regained its healthy tone, unaided by other means; thus showing the removal of the local disease by rational treatment was sufficient, without the improper use of the speculum and nitrate of silver, as advocated by some authors of the present day.

In the course of the discussion that followed the reading of Dr. Snow Beck's paper, plates exhibiting states of congestion and of ulceration of the os and cervix uteri were shown by Mr. Acton, who expressed an opinion that there was an analogy between the male and female genital organs, and that the anomalous symptoms attending such cases as that before the Society in the female, had their parallel in the disease in the male, which of late had been called spermatorrhœa, which he thought did not depend on the loss of semen, as Lallemand had asserted. Congestion of the urinary organs would, he believed, induce all the symptoms of spermatorrhœa. Mr. Acton was followed by Dr. R. Quain, whose valuable remarks we shall give entire.

Dr. R. Quain said, that his attention had been constantly directed to the class of phenomena comprised within the scope of Dr. Beck's interesting communication, by the great number of examples which presented themselves in our public institutions. He believed that seven-tenths, or more, of all the female out-patients of our hospitals and dispensaries, and many of the males, and even children of both sexes, were cases in which symptoms existed similar to those just now described in connexion with the respiratory, digestive, and generative organs. He (Dr. Quain) was not led by his observations, as Dr. Beck and Mr. Acton were, to regard the generative organs as the principal seat of these derangements, with which other derangements were but sympathetically connected. He found in these cases that there existed throughout the mucous membrane, to a greater or less extent, and in a greater or less degree, a common condition, —a condition of increased or morbid sensibility, accompanied by a greater or less amount of flux. In the respiratory mucous membrane it was shown by difficulty of breathing, amounting to asthma, on slight exertion or on a change from one atmosphere to another, accompanied by more or less mucous expectoration; in the gastric mucous membrane it was shown by gastrodynia and pyrosis; in the uterine mucous membrane by increased sensibility to touch, by bearing down pains, and leucorrhœal discharge. Various degrees and various modifications and combinations of these symptoms presented themselves in almost every case; but he was quite satisfied that few exceptions to the rule, that one portion of the mucous membrane was rarely affected without this membrane in other parts suffering, would be found; but he should say, not by sympathy. We know that suppressed perspiration of the skin will cause diarrhœa; so will disturbance in the function of the mucous membrane of one organ affect circulation and the secretion in that of another. This disturbance may originate from an endless but too familiar list of causes acting on the membrane, as it lines any of the important viscera. If this cause be sufficient, whether it be mental anxiety, or bad food acting on the gastric mucous membrane, or menstruation suppressed by cold acting on the uterine membrane, to alter or partially affect the secretion of the one or the other, the secreting action of the injured organ will, so to speak, be directed to the sound one, which then becomes itself a seat of morbid action. This he (Dr. Quain) believed to be the true explanation of the so-called sympathetic and anomalous affections constantly found in cases such as that brought forward by Dr. Beck. The actual pathological condition of the membrane in these cases was a subject of deep interest; but it must be reserved for a more extended consideration. In the second place, with reference to the reflected pains, (for it was evident that there existed phenomena of reflex pain as well as of reflex motion,) the course of which, in this case, were so well illustrated by the admirable dissections of Dr. Beck, he (Dr. Quain) would say, that the connexion between the sympathetic nerves and the spinal nerves was not limited to the uterine nerves; but that the nerves of the other viscera, and probably of the organs of spinal sense, possessed a like connexion. It is by bearing this in mind that we can explain many of the wandering pains and the superficial tenderness in various situations which we constantly meet with. For example, in follicular and other forms of sore throat, we almost always hear of pains shooting down the sides of the neck and over the shoulders; in early phthisis we meet with pain between the shoulders, and tenderness under the clavicles; in gastrodynia we find pain in the dorsal region, along the intercostal nerves, and especially in the left hypochondriac region. Dr. Beck had just now fully described these pains from the uterine organs; and many other illustrations might be given, but all were familiar with the reflected pain at the end of the penis and along the thighs, caused by stone in the male bladder. In connexion with the condition of the mucous membrane, causing this exalted sensibility and reflected pain, was found that superficial tenderness over the spine, called "spinal irritation." He (Dr. Quain) believed this condition to be due to this same reflected sensibility, just as in inflammation and ulceration of the conjunctiva, there is excited a morbid sensibility of the retina and intolerance of sight, without any marked or primary disease of the retina itself. He apologised for these imperfect and unprepared remarks, which listening to Dr. Beck's communication had induced him to intrude on the Society. Repeated observations had led him to form the view which he sought to express, and he believed that in it lay the key to the right understanding of a most troublesome class of ailments, and not more troublesome than of frequent occurrence. By keeping in view this connexion of diseased action in one portion of the mucous membrane with that in another, and the reflected pains and sensations thence proceeding, he had found these affections far more manageable and amenable to treatment than they would otherwise be. He would probably seek an opportunity of bringing some of the cases to which he referred, and which were in themselves perfect illustrations of his argument, before the Society.

These views were supported by Dr. Wagstaffe, who was clearly inclined to refer those symptoms said to be caused by ulceration of the cervix uteri to a diseased condition of the mucous membrane,—to catarrhal irritation, and not to inflammation or its consequences. Dr. Barnes expressed his belief that the ulceration of the cervix spoken of by some was only two steps removed from the congestion described by Dr. Snow Beck, and that it would be difficult to decide where the one terminated and the other commenced, as there would not be of necessity an aggravation of symptoms. He then confirmed Dr. Beck's statement as to the presence of lithates in the urine during the existence of discharge from the os uteri; and added, that as the uterine disorder got better so the urine became clear.

Renunciation of a Legacy.—The late Mrs. Butler Cole bequeathed to Mr. Dixon, surgeon, of Preston, her medical attendant, the sum of 3,000*l*. That gentleman has, it is said, declined to receive the legacy, and has executed a deed of renunciation. This sum will be divided among the nephews and nieces of the deceased lady.—*Blackburn Standard.*

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METROPOLITAN FREE HOSPITAL.

The anniversary festival of this institution was celebrated at the London Tavern on Wednesday—Mr. Alderman Salomons presiding, in the absence, through indisposition, of Lord Dudley Stuart, M.P. The Chairman was supported by Mr. James Gurney Fry, Mr. W. Law Ogilvy, Mr. Ed. James, Q.C., Mr. W. Rogers, Mr. Saunders, City Comptroller, Mr. C. A. Clark, Mr. Hugh Andrews, Mr. J. Atkinson, &c. &c.

About 150 gentlemen, many of great City influence, sat down to dinner.

The cloth having been removed, and the usual loyal toasts drunk, the Chairman eloquently urged the claims which the Metropolitan Free Hospital had for support.

The Secretary (Mr. Nash) then read the following report:—

"The Committee, in presenting their report for the past year, congratulate the Governors and friends of the charity on the increased support it has received during that period. In the years of the famine and of the cholera the income of the Society, from causes which will be apparent, considerably declined; but a gratifying change in this respect has taken place during the year 1850, the donations and subscriptions received in which have amounted to 916*l.* 18*s.* A detailed statement of the receipts and disbursements will be published with the report, but it may briefly be stated here that the current expenditure is about 700*l.* per annum. The income, therefore, for 1850, presents the gratifying feature of being in advance of the expenditure; but the surplus has been employed to liquidate the excess of expenditure during the years of depression before alluded to. The particular feature in the history of the hospital during the past year has been its removal from Carey-street, Lincoln's-inn-fields, to its present more commodious and roomy premises in Devonshire-square; and the Committee have the satisfaction to record that the change has been in every way beneficial. The funds, as has been shown, have increased, and the neighbourhood into which it has been removed is the one which, perhaps more than most others in the metropolis, required additional facilities for affording relief to the sick poor. This is apparent from the fact, that notwithstanding the short period it has been established in the city, it already relieves as large a number of out-patients as it was accustomed to do after several years' existence in Carey-street. As regards in-patients, space exists for the accommodation of about forty, and his late Royal Highness the Duke of Cambridge generously presented the Committee with a few beds, but even these they are compelled at present to keep unoccupied, from the insufficiency of the funds. It is in order to obtain the means of rendering these beds at once serviceable to the sick poor, and to raise the funds generally to a point commensurate with the wants of the poor and populous neighbourhood in which the hospital is situated, that the Committee now appeal to the friends of the charity and the public at large for aid."

Mr. James, Q.C., expressed the great satisfaction he felt at seeing the large amount of good which had been effected by the charity with such limited means.

Mr. Rogers had been for fifteen years connected with the institution, and, so long as he possessed a shilling or a guinea to spare it should be at the service of the charity. (Cheers.) He briefly alluded to the charitable disposition known to animate the families of the Gurneys and the Frys, and proposed the health of Mr. John Gurney Hoare, the treasurer, Mr. John Gurney Fry, and the Committee of Management. (Cheers.)

Mr. Fry returned thanks, and expressed his regret that his cousin, Mr. Hoare, could not be present, owing to the pressure of business; but he was sure he would be delighted, as treasurer, to find how large had been the subscriptions announced that evening. (Cheers.) Though he (Mr. Fry) was the Chairman of the Committee, it was due to Mr. Ogilvy to say, that that gentleman had devoted the most attention to the management of the affairs of the hospital, and they were particularly indebted to him for his exertions. (Loud cheers.) Though they had now a good house, with beds and every other requisite, he requested to say, that at present the state of their funds would not allow them to open the hospital for the reception of in-patients. (Hear.) He hoped that difficulty would not long exist, and he was sure, if they only found the means of opening their hospital for in-patients, they would be liberally assisted by a neighbour of theirs, with which an honoured relation of his was connected—the Institution of Nursing Sisters—who would supply them with three nurses for their wards. (Cheers.)

The "Stewards" having been drunk and acknowledged, the "Medical Officers" was proposed and drunk with all the honours.

Dr. J. S. Bushnan begged to acknowledge the honour just conferred upon the medical staff of the institution. He felt that the object and desire of every gentleman present was to do everything in his power to promote the interests of the charity—(cheers)—a charity which was placed in the midst of a most densely populated locality,—a charity that requires no recommendation before admitting patients to its benefits,—which at once received under its care all who required it, Jew or Gentile; the only title to become recipients of its benefits being, that those who applied should be in poverty and sickness. (Cheers.) He considered that such a charity had peculiar claims upon their support, and he could not conceive that there was any institution in existence whose objects were purer or more disinterested. (Cheers.) For himself and his colleagues, he could assure them that no endeavours should be wanting, as far as the medical officers were concerned, to promote and carry out the holy purposes of the hospital (Cheers.) They, however, could not do all—they were not wealthy citizens—and when they gave up their time to the charity, they gave up that which formed their stock in trade. They were prepared readily to give up as much of their time as possible; nay, they were ready, as far as their ability would allow them, to subscribe their money towards carrying out the objects which he was sure every gentleman present had at heart. There was one disadvantage under which their charity had hitherto laboured, which he trusted he would hear that night was about to be removed, viz., the want of accommodation for in-patients. (Hear, hear.) He would put before them, in a clear and explicit view, the great necessity that there existed for opening the hospital, and providing beds for in-patients. He knew that while he had had the honour to be Physician to that charity, he had lost several patients whose lives he might have saved had he possessed the power of placing them in beds, and watching the progress of their cases, assisted by careful and vigilant nurses. (Cheers.) Who could say that every life so lost was not as valuable as that of any man then present, enjoying the comforts and luxuries of life? The expense of each bed would not average more than 20*l.* per annum, and he asked them what would that be among the numberless supporters by which the charity was now surrounded? He called upon them to double their efforts—to double their subscriptions; and they might rely upon it that no sooner did they begin to receive in-patients into their hospital than they would greatly add to the number of its supporters. (Cheers.) He called upon the Committee of Management at once to prepare beds for in-patients; and, if they did not so, he was authorised by his colleagues to say that they would provide them at their own expense. (Cheers.) He was sure, however, that the subscribers to the hospital would not wish them to do so; and trusting that, within a very few days, they would be in a position to receive in-patients into the hospital, he begged again to acknowledge the compliment paid to himself and professional brethren. (Cheers.)

The subscriptions and donations announced in the course of the evening were about 1,500*l.* Of these, three sums of 200*l.*, 100*l.*, and 25*l.* were given anonymously; and the Jewish subscription-list amounted to nearly 250*l.*

MEDICAL NEWS.

NAVAL APPOINTMENTS.—Assistant-Surgeon Archibald Armstrong, M.D., (1846) to the Hecate steam-sloop, at Portsmouth. Assistant-Surgeon Ahmuty Irwin (acting) to the Southampton, 50, flag-ship, on the south-east coast of America station. Promotion—Assistant-Surgeon Arthur W. W. Babington (1841) to be surgeon. Assistant-Surgeon Wm. G. O'Brien, (1846) from the Trident, paid off yesterday (March 31st) at Woolwich, to the Tartarus steam-vessel, at Woolwich.

MEDICAL APPOINTMENTS AND VACANCIES.—There is an appointment of medical assistant vacant at the Gloucester County Lunatic Asylum; the salary is 50*l.* a-year, with board and lodging. Candidates must be M.R.C.S. and L.A.C., and unmarried. A dispenser is wanted for St. Mary's Hospital, salary 50*l.* a-year, with board and lodging; he also must be unmarried. A second vacancy in the Assistant-Surgeoncy to the Royal Orthopædic Hospital has occurred through the resignation of that office by Mr. Chance. There are already, we believe, three candidates in the field. In the Wantage Union, candidates are required for the appointment of medical officer for the Ilsley district, with a population of 3800, and a salary of 55*l.* per annum, with extra fees for midwifery, fractures, and amputations, according to the scale of the Poor-law Board.

OBITUARY.—On the 24th ult., at Allbaston Vicarage, George Augustus Campbell Bright, Esq., late garrison-surgeon, Bangalore.

THE LATE DR. INGLIS.—Our obituary has recorded the death

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of this gentleman; but a life of such promise and usefulness as his calls for some further notice than the brief record of his age and death. Dr. Inglis was born at Glasgow, September, 1813, and was consequently in his 38th year at the period of his decease. His family having removed to Musselburgh before he was quite five years old; his education may be said to have commenced there, and so far as the literary part of it was concerned, to have been completed at the grammar school of that town. He was not known or remembered there as a diligent student, but as an eager and enthusiastic spirit; keen in the pursuit of sport while yet a boy, and equally carried away by higher objects on the first dawn of his manly faculties. While yet a youth he shewed a decided bias for chemistry; and long before he attended lectures upon that subject he was well acquainted with the rationale of all the more simple processes, and showed great ingenuity in their practical elucidation. His mechanical turn also evinced itself at an early period. His temper was always amiable, and his appearance prepossessing, and it is not therefore to be wondered at that he was a favourite with his comrades. He matriculated at the University of Edinburgh in the winter of 1828, and at the same time became bound as an apprentice to Sir George Ballingall, now Professor of Military Surgery in that college. His favourite pursuit soon brought him into connexion with the late Mr. Kemp, probably the best practical chemist of his day, and to whom many of the collateral branches of that science owe their present rank and position. This connexion was the means of introducing Dr. Inglis to the late Dr. Hope, who very soon recognised the zeal and ability of his young friend, and gave him ample and valuable opportunities of improving and extending his knowledge in the University laboratory. These opportunities were not neglected, and led, at no distant date, to Dr. Inglis's successful competition for Dr. Hope's prize, and to the offer on the part of the Professor of the situation of his assistant. While pre-eminent, however, in the pursuit of one branch of his professional education, it does not appear that he was neglectful of the rest, inasmuch as he was a frequent debater in the arena of the Medical Society, and contributed many meritorious papers, which, from their originality, were productive of much useful discussion. The friendships he formed at this time are also evidence of the various nature of his studies, which led him into an alliance with men who have since become eminent, not only in the practice of medicine, but in botany, geology, and mineralogy. He graduated in 1834, and became at the same time a member of the Royal College of Surgeons of Edinburgh. In the spring of 1835 he settled in Castle Douglas, a small town of Galloway, where he remained two years. He then left, but not before he had gained the friendship and goodwill of many of the inhabitants, and settled in Ripon, where he became, in 1837, Physician to the Public Dispensary. In 1838 he removed to Halifax, and, in addition to his private professional labours, he soon distinguished himself in furthering the interests and aiding the usefulness of the Literary and Philosophical Society, to which he was elected Curator of Geology, and remained to his last moments its fast and firm friend. He made several interesting communications of geological discoveries in this neighbourhood to the West Riding Geological and Polytechnic Society and the British Association. A life of great promise, however, was cut short by the inroads of the fatal disease of which he died, and this compelled him in 1850 to relinquish his practice, to which Dr. Kilgour succeeded. In Dr. Inglis the *Medical Times* has lost a distinguished correspondent, and we ourselves a warmhearted and valued friend. To the homœopaths, and to every species of the genus quack, he was an uncompromising opponent; and some of the best articles that have appeared in this journal upon Medical Ethics were from his pen. Within a day or two of his death we heard from him. He wrote cheerfully and happily, at the same time alluding to his uncertain tenure of life; for he had long suffered from disease of the heart, and knew well what must be its result. His last work was the invention and manufacture of a life-boat. It has been sent to compete for the prize offered for the best; and there is reason for believing that Dr. Inglis's anxiety to complete his work in time may have hastened his death. *Discessit e vita.* He has departed from life to enjoy elsewhere such bliss as is here unknown and unattainable.

Royal Orthopædic Hospital.—The twelfth anniversary meeting of the governors of this Institution was held on the 28th ult. The report stated that the Duke of Cambridge had declined the office of president. The receipts had increased, but not in proportion to their wants; 310 persons were then applicants for admission. The total number of in and out patients during the past year was 1455, 10,570 having been relieved since the hospital was instituted. The receipts were 2162*l.* 3s. 2d., expenditure 1886*l.* 12s. 8d.; balance in hand, 275*l.* 10s. 6d., besides 544*l.* 4s. 4d. three and a quarter per cent. reduced. Debts to the amount of 1257*l.* 13s. 1d., were stated to be still unpaid; but of this amount it was afterwards said that 150*l.* had been paid; for these the Committee had accepted the responsibility.

British Medical Fund.—A large and influential meeting of the friends and supporters of this institution took place on Tuesday last, the 25th inst., at the Gloucester Infirmary, for the purpose of receiving from Mr. Hawtayne, the Secretary, an explanation of the objects and benefits contemplated by the Society. Among the professional gentlemen present were Drs. Evans and Ramsay; Messrs. Morgan, Niblett, Hickes, Clarke, Wood, Rumsey, Charleton, &c. &c. Dr. Evans having taken the chair, and several gentlemen having addressed the meeting, the following resolutions were carried unanimously:—

1st. That this meeting highly approves of the principles and objects contemplated by the "British Medical Fund," and strongly recommends the Society to the encouragement and support of the Profession at large.

2nd. That the thanks of this meeting and of the Profession are due to Dr. Forbes and the Directors of the "British Medical Fund," for their disinterested and indefatigable labours in promoting the interests of the Society.

3rd. That the best thanks of the Profession are eminently due to Edward Daniell, Esq., of Newport Pagnel, for his philanthropic labours in promoting and furthering the objects of the Society.

4th. That the best thanks of this meeting be offered to Dr. Evans for his readiness in presiding on this occasion, and for his very conciliatory and gentlemanly conduct in the chair.

We observe that meetings of a similar nature are being held in the various towns throughout the provinces, and most heartily do we wish this invaluable institution every success.—*Gloucester Journal*, Saturday, March 29, 1851.

Statistical Society of London, March 17.—The Right Hon. Lord Overstone, President, in the Chair.—Lieut.-Colonel W. H. Sykes, V.P., read a paper on the Mortality in the Army, European and Native, under the Madras Government, from 1842 to 1846 inclusive, as compared with the mortality in the year 1847. It appeared that the average per centage for the above five years, from all diseases, had been—

			Europeans.	Natives.
Per centage of	"treated" to	"strength"	159·215	70·846
,,	"deaths" to	do.	3·856	2·076
,,	do. to	"treated"	2·439	3·287
And in 1847:—				
Per centage of	"treated" to	"strength"	156·575	77·611
,,	"deaths" to	do.	2·948	1·295
,,	do. to	"treated"	1·883	1·668

Showing that, though the *prevalence* of disease had been nearly equal, a very satisfactory decrease might be observed in point of *intensity*,—nearly 1 per cent. less mortality, both in regard to strength and number treated, among both bodies of men, in 1847. The Returns gave the number of cases and mortality at each division of the army; and Colonel Sykes arranged in tables the number of cases and number of deaths in each of the nine principal diseases at each station; so that the intensity of each disease at different stations might be determined by a glance of the eye. Some of the results were very remarkable. The order of intensity among Europeans, as indicated by the *number of cases*, was fever, venerea, dysentery, diarrhœa, rheumatism, liver, thoracia, cholera, and dropsy; but the order of the intensity, as indicated by the *mortality*, was very different from this. First came cholera, doubling the per centage from any other disease; then dysentery, fevers, liver, diarrhœa, thoracia, dropsy, rheumatism, and venerea. With the native troops the per centage of cases was, fevers, rheumatism, venerea, diarrhœa, cholera, dysentery, dropsy, thoracia, and liver; and the per centage of deaths ran in the order, cholera, fevers, diarrhœa, dropsy, dysentery, rheumatism, thoracia, venerea, and liver; so that the same diseases affected Europeans and natives very differently. Colonel Sykes's paper contained tables of the mortality of Europeans after different periods of residence in India, and the results of some curious experiments to determine the amount of heat to which the soldier's head is exposed in the line of march. Intemperance was stated to be the primary cause of disease and mortality. Even in an orderly, well-behaved, comparatively healthy regiment, in which there was a temperance and a teetotal society, no less than 7679 gallons of arrack, 802 bottles of brandy, 270 bottles of gin, 5613 bottles of beer, and 2514 bottles of porter, were drunk from the 1st of January to the 31st of December, 1847. Colonel Sykes stated, that facts founded upon the most minute and elaborate official details, of an unquestionably trustworthy character, were worthy of grave attention; to the medical man they afforded the means of comparing the intensity of the same disease under different local circumstances, of investigating the history

and character of diseases, and of applying remedial or ameliorating measures where practicable. The physiologist views with a cautious and inquiring eye the influence of those physical evils or moral causes which occasion the development of *latent* diseases, under certain conditions, or the exacerbation of those that are *patent* under other conditions: not less does he contemplate with surprise the prodigious discrepancies in the value of life of beings with the same organization, and living under the same climatorial conditions, but of different geographical origin and habits. The actuary finds data for regulating his estimation of the value of life, and of fixing his premiums accordingly. The statesman, economist, and philanthropist, have their interest also in such statements; the first in relation to securing his political objects in the most efficient manner, by the smallest and least costly means; the second desiderates a system to secure the State from a wasteful expenditure of its pecuniary resources by a lavish expenditure of European life in India; for, as it is understood that each European costs the State 100*l.* by the time he joins his regiment, the 10,025 lives lost from 1845 to 1849 in all India occasioned a loss of above a million of money; and, finally, the philanthropist is shocked by the conviction, that much of the waste of European life in India is self-imposed, and that much of the intensity of the mortality should be within human control.

London Hospital.—The house-committee and governors of this hospital have applied to the authorities of the City of London for a grant in aid of their funds. The application has been referred to the finance committee.

In the ordnance estimates there is an item to the amount of 10,000*l.* for the building a new hospital in the Plymouth district.

The Tempest Prognosticator.—The fact that leeches tend to rise to the surface of the water, or to the top of the vessel containing them, when some preliminary meteorological change is in progress, has been long known, and is alluded to by various writers; but it has remained for Dr. Merryweather (most auspicious name!) to mature this fact by experiment into what he regards as an invention of momentous interest to mariners, to agriculturists, and, indeed, to all more or less interested in a foreknowledge of storms. The result of his experiments he states to be, that the rise of the leech indicates the accession of a storm often long before any barometer does so; and, in explanation so far of this circumstance, he addnces Dr. Faraday's account of Pelletier's discovery, that the electricity of the air, as indicated by an electrometer, increases as the instrument rises through each stratum of the air, while it is the same in amount horizontally in each stratum at any one time. It is on something like scientific principle, therefore, that Dr. Merryweather's auctorial barometer is constituted, and, at all events, we can better understand how leeches may thus be weather prophets, and prognosticate storms, than how snails may constitute electro-magical telegraphs without connecting wires. By the way, it is an odd circumstance, in connexion with this latter somewhat *outré* discovery by a Frenchman, that that singular physio-philosophist, Oken, tells us the snail is the emblem of prophetic life! More singular still it is that Plato declares the liver to be the seat of the spirit of prophecy; and we know that snails are anatomically remarkable for relatively enormous livers! Alas, for the dignity of the prophet! Plato, let us add, is not altogether unsupported in his strange idea, at least mythologically; and hence, figuratively speaking, *e.g.*, Prometheus (the Foreknower) had his liver renewed every night.—*The Builder.*

Giving Opium by Mistake.—A surgeon named Pascoe, was recently tried at Bodmin for the manslaughter of a patient, by giving him in mistake eight grains of opium. It appeared from the evidence that the deceased, Bunt, was supposed to labour under some pulmonary affection, which led him to consult the prisoner, a surgeon in general practice, of considerable repute, and that, failing to find him at home, he followed him to a Mr. Mitchell's, a druggist, where he obtained his professional opinion, and was assured that his lungs were sound, but that he laboured under a bilious attack, for which he gave him something at once. His prescription could not be made up at the moment, and he consequently took down certain bottles, prepared some medicine, and gave it the deceased. One of the bottles he used contained a dark liquid, and was labelled "Opii;" of this, the wife of the deceased said he used about three table-spoonsful. This was mixed with a water, and given to the deceased, who, soon after taking it, became drowsy, could not be roused, and died at midnight. Three witnesses swore that the prisoner was intoxicated at the time. The medical evidence in the case was shamefully imperfect, and the result was the prisoner was acquitted. One of the results relied on for testing the poisonous nature of the medicine dispensed by the prisoner was giving the contents of the stomach to a duck. Of course no harm occurred to the bird. Chemical analysis, at all times difficult in poisoning by vegetable drugs, does not appear to have been had recourse to. It seems to us, that the prisoner intended to give a black draught. If he made a mistake in the bottles, it was gross negligence; but if the evidence of the three witnesses be correct, that he was intoxicated at the time,—nine o'clock in the morning, it would amount to manslaughter at least, and it is shocking to think that justice should be thus frustrated. Nine in the morning is, however, an early hour for even a habitual drunkard to be intoxicated, and we can hardly believe that a surgeon who was said to be in large practice could be a drunkard. The case is involved in great mystery; but the result has been the loss of a human life.

Harvey Demonstrating to Charles I. his Theory of the Circulation of the Blood, from the Heart of a Deer. Painted by Mr. R. Hannah. Engraving by Mr. H. Lemon.—We particularly beg to call the attention of our readers to this admirable work, the object of which is, by furnishing a pictorial record of an incident in the life of a great man, to extend a knowledge of one of the most important discoveries in science, and to keep alive in the hearts of all who admire genius, gratitude to the memory of one of the greatest benefactors of mankind. The scene of the picture is Harvey's apartment in the palace. The king is seated in the front of the picture. The courtier who stands behind him, with his hand familiarly resting on the back of his chair, indicates the attachment and devotion of the cavaliers in those times of danger to the king. The skull and the nearly-spent hour-glass behind this group may have a meaning to the moralist. The close proximity of the young prince to the philosopher indicates the gentle character of the man, and the inoffensiveness of the operation. The prince has suspended the perusal of Harvey's favourite author, for the greater excitement of his friend and tutor's demonstration. The extreme fondness for anatomical studies which in after-life characterised both Charles II. and James II. is thus explained. The artist has taken great pains to preserve the likeness of Harvey, and was guided by his excellent portrait by Cornelius Jansen, in the College of Physicians, the authorities of which most kindly placed that and all that the College contained concerning Harvey at his disposal. The picture is the property of Joseph Hodgson, Esq., F.R.C.S., of Westbourne-terrace, Hyde-park, who has most kindly and liberally lent it to Messrs. Lloyd Brothers and Co., of Ludgate-hill, the publishers, for the purpose of engraving.

Sale of Arsenic in Germany.—The following regulations are in force in Germany with respect to the sale of arsenic:—To prevent rat-poison being made a bad use of, or taken by mistake, the arsenic must be mixed with tallow and lamp-black, which makes an offensive compound. None is allowed to be sold for that purpose in a pure state. Lord Carlisle's plan of taking the name and address of the purchaser is applied to all poisons; neither are they given without a written order from a physician. But the Germans carry their precautions still further. To prevent a poisonous medicine being used in mistake for another in making up prescriptions, all poisonous medicines are kept by themselves on a shelf with doors under lock and key. Outward applications, when sent from an apothecary's, are distinguished by a red or pink label from medicines to be taken internally, which have a white label. How many domestic tragedies would such simple regulations prevent in our country!

A Fairy Doctress.—At the Nenagh Assizes lately, a "fairy doctress" was convicted on an indictment charging her with causing the death of a child by administering large quantities of fox-glove. It appeared by the evidence that the prisoner had repeatedly caused the sick child to be *exposed at night on a shovel*, after administering an infusion of fox-glove and vervain, and that the victim on one of these occasions was found dead on the dung-heap. How fearfully paramount must superstition be in a district, when practices such as these can obtain? Education is as much wanted as the magistrate and the judge.

BIRTHS AND DEATHS.

	Births.		Deaths.		Births over Deaths.	
Males	947	1780	754	1416	193	362
Females	833		664		169	

The Deaths in the several Districts are as follow:—

Districts.	Population in 1841.	March 29, 1851.	Sum of Ten Weeks.
London...	1948369	1416	10726
West	801189	202	1538
North	876868	289	2012
Central...	874199	281	1967
East	393067	299	2346
South	563946	397	2813

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DEATHS *in the Metropolis for the week ending Saturday, March 29, 1851.*

Causes of Death.	March 29. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	638	465	313	1418	10726
Specified Causes	638	466	313	1416	10651
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases	171	43	31	245	1880
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat	1	24	17	42	295
3. Tubercular Diseases	75	115	5	195	1963
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses	71	55	41	167	1301
5. Diseases of the Heart and Blood-vessels	3	31	19	53	353
6. Diseases of the Lungs, and of the other Organs of Respiration	127	77	68	272	1786
7. Diseases of the Stomach, Liver, and other Organs of Digestion	35	16	14	65	691
8. Diseases of the Kidneys, &c.	...	2	5	7	87
9. Childbirth, Diseases of the Uterus	...	9	...	9	118
10. Rheumatism, Diseases of the Bones, Joints, &c.	3	5	5	13	71
11. Diseases of the Skin, Cellular Tissue, &c.	...	1	...	1	10
12. Malformations	4	...	...	4	24
13. Premature Birth and Debility	39	3	...	42	219
14. Atrophy	25	...	...	25	169
15. Age	...	...	65	65	562
16. Sudden	28	16	22	66	346
17. Violence, Privation, Cold, and Intemperance	56	68	21	147	614
Causes not Specified	...	...	...	...	55

1. Small-pox	12	Paralysis	39	Disease of Spleen	...
Measles	35	Delirium Tremens	4	8. Nephritis	...
Scarlatina	30	Chorea	...	Nephria or Bright's Disease	1
Hooping Cough	63	Epilepsy	3	Ischuria	...
Croup	9	Tetanus	1	Diabetes	1
Thrush	2	Insanity	3	Stone	...
Diarrhœa	20	Convulsions	57	Cystitis	2
Dysentery	2	Disease of Brain, &c.	13	Stricture of Urethra	...
Cholera	1	5. Pericarditis	2	Disease of Kidneys, &c.	3
Influenza	37	Aneurism	3	9. Pneumonia	1
Purpura and Scurvy	...	Disease of Heart	48	Ovarian Dropsy	1
Ague	...	6. Laryngitis	5	Childbirth (see Metria)	5
Remittent Fever	2	Bronchitis	109	Disease of Uterus, &c.	2
Infantile Fever	...	Pleurisy	10	10. Arthritis	...
Typhus	38	Pneumonia	117	Rheumatism	8
Metria or Puerperal Fever	2	Asthma	21	Disease of Joints, &c.	5
Rheumatic Fever	1	Disease of Lungs, &c.	10	11. Carbuncle	...
Erysipelas	9	7. Teething	21	Phlegmon	...
Syphilis	1	Quinsey	2	Disease of Skin, &c.	1
Noma or Canker	1	Gastritis	3	12. Intemperance	14
Hydrophobia	...	Enteritis	5	Privation of Food	4
2. Hæmorrhage	3	Peritonitis	2	Want of Breast-milk	7
Dropsy	14	Ascites	1	Neglect	...
Abscess	2	Ulceration (of Intestines, &c.)	1	Cold	3
Ulcer	2	Hernia	5	Poison	7
Fistula	1	Ileus	3	Burns and Scalds	26
Mortification	3	Intussusception	2	Hanging, &c.	23
Cancer	17	Stricture of Intestinal Canal	1	Drowning	14
Gout	...	Disease of Stomach, &c.	6	Fractures	49
3. Scrofula	8	Disease of Pancreas	...	Wounds	13
Tabes Mesenterica	19	Hepatitis	3	Other Violence	4
Phthisis (or Consumption)	129	Jaundice	1	All Violence	29
Hydrocephalus	39	Disease of Liver	9		
4. Cephalitis	10				
Apoplexy	32				

TO CORRESPONDENTS.

[To the Editor of the Medical Times.]

Sir,—Although one of your consumers, and bound to confess that I often look forward to the Saturday for my "Times Medical," with other of "my week's medical food," yet I must tell you that of late you have given me some very indigestible useless stuff to ruminate on. Now, I have no notion of supplying my animal economy with materials which do not fully compensate for the trouble of digesting; nor will I give my intellectual senses the trouble of perusing your pages, if I cannot obtain something from them either useful or entertaining. Amusement I do not look for, although of late I question between you and "Punch" for fun. Your Captain Achesley and his doings are peculiarly rich and droll, as are also your reports of the proceedings of the Royal Medico-Chirurgical Society in the last two Numbers, in which the very learned Society gravely entertains and discusses certain suggestions about babies' heads (after they have been compressed and moulded to the passages of the outlet), as predisposing causes of insanity, idiocy, epilepsy, &c. &c., nearly as good as "Punch;" and you make some of the members talk a great deal of nonsense. One Dr. Lee (I think I know the man: if so, he is far too practical and common-sensual to discuss such a matter) appears to have spoiled the sport most sadly. The only wonder to myself was, that amongst all the shaped heads which this learned body had observed, they did not one of them mention the rolley-pudding-shaped head, which, although after a few days (even without the aid of the birch) is apt to resolve itself into the natural conformation as to outline; yet, nevertheless, in some unhappy instances the infant is apt to retain the semblance in internal cerebral structure,—and that in these peculiar instances, where the birch had, unfortunately, not been freely employed, the poor patient was apt, in after life, to talk a great deal of nonsense and theoretical trash. Last week, again, another dose of babies' heads! and a doubtful case by Dr. Hastings, of Cheltenham, in which we are informed that a certain Captain R—— was taken very bad,—or rather, *was took*,—and Dr. Hastings was of course sent for, and did not know what was the matter: nor did a Dr. C——; but after some six hours the Captain made his escape from this life, and the two doctors then, but not till then, discovered that the patient died from spasm of the heart. Only imagine a six hours' spasm! The doctors declares he was puzzled by the symptoms, but yet without any further investigations after death, or minute examination recorded, he jumps at the cause of death, and then most religiously declares for our further credulity, that "truth is mighty, and will prevail"—over gratuitous assumption, I will add. And let me ask what possible advantage will the medical art derive from this very doubtful case? I will not pursue this subject, as I too well know you are not responsible for reports, &c. &c. That you may not decline in condition I write this. Hitherto have I considered you excellent picking, and trust long to see you at my table, to regale young, &c.,

Kensington. J. W. Turner.

Argus.—The suggestion shall be considered.

J. B. will perceive we have not neglected him.

Mr. Bulley's drawing is in the hands of our engraver.

A Subscriber.—Dr. Golding Bird's "Elements of Natural Philosophy," and Muller's "Physics."

Mr. Garlike's paper has been passed to the printers, from whom he will receive a proof for correction. It gives us pleasure at all times to find room for *short* articles; but long communications, especially those which are "to be continued," must take their turn,—a rule from which it would be unfair to depart.

Inquirer.—At Brussels, Dr. Parkinson is the recognised English physician; at Frankfort, Sir Alexander Downie.

A Young Practitioner.—*Nil desperandum!* There is no man who has not experienced unhoped for blessings. Remember this when you are disposed to repine at the future, and remembrance will become the nurse of hope. We should manage ourselves as Rell is said to have managed his patients, —"The incurable lost life, but not hope!"

An Admirer of Miss Martineau.—This is not the place to discuss Miss Martineau more fully than we have already done in our review of "Man's Nature and Development." Our Correspondent, however, may be assured that scepticism such as hers is weakness. The weak retreat before the presence of difficulties which the courageous encounter with steady resolution, and which faith alone can help to overcome. The half-informed physician is often a sceptic.

A Country Surgeon.—The appointment is almost honorary. It confers no privilege beyond that of the name. We cannot agree with our Correspondent in his condemnatory remarks respecting the use that Mr. Highley makes of the appointment of "Bookseller to the College of Surgeons" in his advertisements. He is legitimately entitled to make the most of it, and should not be censured on that account.

Mr. Startin presents his compliments to the Editor of the "Medical Times," and begs to say that he probably inadvertently omitted Mr. Startin's name amongst the presentations to Her Majesty at the last Levee, when Mr. Startin had the honour of being presented by Lord Marcus Hill. A rectification of this omission will be esteemed a favour.

[To the Editor of the Medical Times.]

Sir,—Will you oblige an old subscriber by stating with whom rests the power of calling in a medical man for pauper lunatic certificates? Has the officiating minister the right of employing whom he pleases, or does it rest with the overseer to do so, the parish being compelled to pay him? Your answer in the next "Times" will oblige. I am, &c.,

Southampton. P. Z.

*** The power in question rests with the Board of Guardians or one of their officers.

Communications have been received from—

Argus; J. B.; A Subscriber; Mr. Bulley, of Reading, Surgeon to the Royal Berkshire Hospital; Mr. Startin, of Savile-row; Messrs. Lloyd, of Ludgate-hill; Mr. Bramley, of Halifax; Mr. Sharon, of the Western Medical Society of London; Mr. Peters, of Clifton-terrace Brighton; Mr. McDougall, of Henrietta-street; Mr. Garlike, of Richmond-worth; Inquirer; Dr. Foucart, of St. James's-square; Mr. Wiblin, of Southampton; M. B. S.; Dr. Turley, of Worcester; A Young Practitioner; Professor Lizars, of Edinburgh; Dr. Letheby, of the London Hospital and Rodney-terrace; Dr. Brunker, of the County of Louth Infirmary; Mr. T. C. Fletcher, of the Professional Loan and Assurance Society; A Country Surgeon; Mr. Pavy, of Guy's Hospital; Mr. Jones, of the Geological Society; Dr. McWilliam, of Trinity-square; Dr. King, of Savile-row; Mr. Lloyd, of St. Bartholomew's Hospital, and Bedford-row; Mr. Yearsley, of Savile-row; Mr. Holmes Coote, of St. Bartholomew's Hospital.

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ORIGINAL LECTURES.

CLINICAL LECTURE
ON
MALIGNANT DISEASE OF THE TESTICLE,
DELIVERED AT
ST. BARTHOLOMEW'S HOSPITAL.
By WILLIAM LAWRENCE, F.R.S.

FUNGUS HÆMATODES OF THE LEFT TESTICLE. EXTIRPATION OF THE GLAND.

Case 1.—Wm. H., aged 26, jeweller, a tall, gaunt man, with long pallid face, dark hair and eyes, thin, and apparently emaciated, states that he always enjoyed good health until about twelve months ago, when, without injury or any obvious cause, the left testicle began to swell, and has continued to enlarge, without pain, up to the present time. He has never had either gonorrhœa or syphilis. He was never robust, but he has lost flesh considerably for the last two months. Admitted into the hospital Sept. 2nd, 1850.

The left testicle constitutes a swelling of uniform surface, elongated pyriform shape, six or seven inches in length, the integument and cellular tissue of the scrotum being unaffected. A soft feel, as if from the presence of fluid in a thickened tunica vaginalis, is communicated to the hand on examination. Some parts are more solid than others. The spermatic chord is healthy; there is no perceptible enlargement within the abdomen.

From the figure and uniform outline of the enlargement, together with its softness and apparent fluctuation, it was supposed to consist partly of fluid. Accordingly a trochar was introduced at the softest part. The instrument passed readily up to the hilt, communicating a sensation as if it had entered a cavity. Only some dark blood flowed through the canula.

September 6th.—It was thought desirable by one of my colleagues to try the effect of a mild mercurial course. I therefore directed, without much anticipation of benefit, that the strong mercurial ointment should be rubbed on the surface of the part night and morning.

Sept. 25th.—Severe pain came on in the right side. The patient has rapid pulse, hot skin, difficult and hurried respiration.

A blister to be applied to the side.

28th.—The symptoms are much relieved, but there is still pain in the chest, with some suffering from diarrhœa.

Hydrarg. c. cretâ; pulv. ipec. co. aa. gr. ijss., twice a day.

The tartrate of soda draught daily.

Repeat the blister.

Oct. 12.—The constitutional disturbance excited by the effect of mercury gradually yielded to a morphine draught at night, with mild nourishment, and he regained his former health, the thoracic symptoms having entirely ceased. He now expressed a strong wish to lose the testicle, which had become larger and painful; and, although we could not doubt that the affection was of malignant character, the operation was performed this day. There was pain in the left side of the chest, requiring the application of four leeches on the 13th, and of a blister on the 15th. He then recovered slowly, without any unfavourable symptom, and left the hospital November 19 in good health, but weak, and well pleased to have been freed from a painful incumbrance. He was directed to return if he should again become indisposed; but he has not been seen subsequently.

The testicle was a well-marked specimen of medullary disease, in which, from the magnitude of the morbid growth, the expanded covering afforded by the glandular substance of the organ could only be made out partially and imperfectly.

Since the foregoing account was drawn up, it has been found that this patient became affected with cough and continued to lose flesh after he left the hospital, and that he died in a few weeks, without any evidence of abdominal disease, but, as his friends supposed, of consumption.

FUNGUS HÆMATODES OF THE RIGHT TESTICLE —EXTIRPATION OF THE GLAND—CICATRIZATION OF THE WOUND.

Case 2.—William L., aged 22, watchmaker, a delicate-looking, pallid youth, resident in the City of London, who from childhood has been under occasional medical treatment for different scrofulous symptoms, more especially for glandular enlargements in the neck and puriform discharge from one ear, states that, about five months ago, he accidentally became aware that the right testicle was larger than the left, and had attained the size of a small apple, without causing pain or any inconvenience. He consulted an unqualified person, from whom he derived no benefit. In October he became an out-patient at the hospital, where was tried, first, the effect of mercury, given in such doses as to affect the system; and, secondly, the influence of iodine; but, at the end of this treatment, the testicle remained nearly of the same size—if anything, it was somewhat bigger. I saw him for the first time towards the end of November, when I recommended him to come into the hospital.

Admitted December 2, 1850.—The right testicle covered by loose and healthy integument, under which may be seen the subcutaneous veins full of blood and more tortuous than natural, is much enlarged, measuring twelve inches in circumference taken in the vertical direction. The weight is greater than that of a hydrocele. It is nearly globular, hard, and equally resistant on all sides, with an obscurely elastic sensation on pressure. The spermatic cord feels soft and healthy; but the epididymis is lost in the general mass. The patient thought that pressure upon the lower part produced that peculiar sensation by which the position of the testicle may be known; but his feelings upon this point were not very clear. He does not suffer any considerable pain; occasionally a darting sensation is experienced through the tumour, and he feels as if there were a dull heavy weight at the lower part of the abdomen; there is no perceptible enlargement, nor any tenderness in the pelvic or lumbar region. An exploratory puncture had already been made with a grooved needle into the tumour, when there escaped only a few drops of blood. Feeling satisfied that no kind of treatment would be of avail in restoring the organ to its natural size and condition, and that in his present state there was imminent risk of the disease, if malignant, as was most probably the case, extending upwards along the spermatic chord into the abdomen, I recommended the immediate removal of the part; to which the patient readily assented.

Dec. 7.—Chloroform having been administered, the testicle was removed in the usual manner. An incision having been made through the scrotum, the chord, properly secured, was partially divided, and the spermatic arteries were tied. The complete division of the chord and the removal of the morbid mass from the loose areolar tissue by which it was surrounded, were effected without difficulty; there was no unusual amount of hæmorrhage; the edges of the wound were united by sutures, and the patient was put to bed.

December 9.—The sutures were removed. The wound was healthy, and had in great part united by first intention. He slept well, and was free from pain.

December 10.—The skin was hot; pulse 112, and not so soft as yesterday. He complains of pain in the wound, the appearance of which is healthy.

Ordered six minims of tincture of digitalis, and twenty minims of tincture of hyoscyamus in the tartrate of soda draught, every six hours.

These feverish symptoms gradually subsided, and he left the hospital early in January, the wound not being completely cicatrised.

He presented himself at the hospital on the 15th of February, in excellent health and spirits. The wound had not closed. Near its middle there was a sore, about an inch long and half as wide, of healthy appearance and discharge, under which the cellular texture of the scrotum was slightly swelled and thickened, but without pain. The upper portion of the cicatrix, including the truncated end of the cord, was perfectly sound. The iliac and lumbar regions were most carefully examined, without the detection of enlargement, tenderness, or anything abnormal.

March.—Soon after the last date there was a severe attack of pain in the abdomen, accompanied with sickness. These symptoms, which had lasted some days when I saw him, yielded to the dilute hydrocyanic acid with laudanum. A morbid growth can now be distinguished through the abdominal parieties, in the right side of the spine, about the situation of the navel.

Examination of the Testicle.—The tunica albuginea was entire, with the tunica vaginalis adhering to it for about half its extent. The epididymis was elongated by the enlarge-

ment of the testicle, but otherwise healthy. Within the tunica albuginea the glandular substance of the testis retaining its natural colour and structure, so that the tubuli could be drawn out with forceps, was spread out in a thin, continuous layer over the diseased growth, which consisted of a firm tumour, bounded by a distinct and clearly defined capsule. In this mass two kinds of substance were seen; one soft, white, and brain-like; the other firmer, obscurely fibrous, of light yellow, or fawn colour, interspersed with various sized cavities, from which a thin, bloody fluid escaped upon division. The tumour was composed of a soft, vascular, medullary matter, and of a firmer, darker-coloured substance, closely resembling the fibrin of the blood. Microscopic examination showed the former to consist of a multitude of nucleated cells, some round, others elongated; and of granular bodies, termed cytoblasts, floating free in a thickish fluid, contained in the meshes of a fibrous network, so delicate that some care was requisite for its demonstration. The latter, or firmer part, was more distinctly fibrous; laminæ, composed of flat fibres, closely resembling the stringy substance formed by the coagulation of the fibrin of the blood, divided the mass into cavities or cells, some filled with dark serous fluid, discoloured by altered blood discs, some containing purer and more recent blood. But amongst the firm fibrous structures, were interspersed cells of precisely the same character as were recognised in the softer and medullary part. Throughout the mass there was a large quantity of granular matter, consequent upon the rupture of the older cells, and the disintegration of extravasated blood discs.

Case 3.—A gentleman of short stature and light complexion, of muscular frame and healthy appearance, noticed, about four months ago, a slight painless enlargement of the left testicle. He had previously, upon two or three occasions, experienced transitory enlargement of the organ, and he now attributed his complaint to over-exercise in shooting, during which he received a slight injury to the part. Upon returning to town from the country, he consulted a surgeon, who recommended the abstraction of blood by leeches, which, however, he did not apply. Finding that there was no improvement by rest and common remedies, he applied to Mr. Avery, of the Charing-cross Hospital.

September 21, 1850.—The left testicle, painful to the touch, with aching along the course of the spermatic chord, is hard, heavy, and equally enlarged in every direction to three or four times its natural size. The integuments over it are loose and healthy; there is no swelling of the inguinal absorbent glands. He has had no previous venereal disease.

Twelve leeches to be applied to the testicle. Fomentation; to keep quiet in bed.

Iodine was then fairly tried, both internally and externally, but without benefit. About the beginning of October, family circumstances compelled him again to go into the country, where he exerted himself greatly in shooting. He returned to town in the middle of the month, and was seen by Mr. Avery, October 15. The whole testicle was larger, and more indurated; the spermatic chord was full, and slightly tender; no enlargement of the inguinal glands.

Iodine was again unsuccessfully employed. The effect of mercury was tried. The testicle was carefully strapped, but without benefit. During salivation, which was effected with difficulty, the testicle kept increasing, until it had attained the size of the closed fist. I was then requested to meet Mr. Avery in consultation, when I found the organ in the following state:—

The testicle, slightly larger above than below, was a heavy and apparently solid mass, with smooth and even surface, in some parts firm, in others obscurely elastic. There was but little pain upon pressure; the spermatic chord was healthy; the vas deferens of its natural size; the epididymis could not be felt distinct from the mass, except at its upper end. The inguinal glands were in their natural state. The patient, whose health had somewhat suffered from anxiety, and from the remedies employed, was not indisposed in other respects. I fully concurred with Mr. Avery in the propriety of removing the diseased part, which was done by that gentleman December 20. After the operation there was pain in the loins and abdomen, which disappeared as soon as the bowels had been freely relieved. The wound healed without an unfavourable symptom in a fortnight.

Examination of the Tumour.—A vertical incision exposed a bloody ragged mass, invested by a firm, continuous, fibrinous capsule several lines in thickness, and by the tunica albuginea, under which, and over the entire convexity of the tumour, was spread out in a thin layer the unchanged tubular structure of the testicle. The upper part of the morbid structure was of light fawn colour, semi-transparent, grumous, and pulpy; the middle firmer, more opaque, white, and cerebriform, having coarse fibrous septa. The lower portion was soft, darkish brown, and bloody. Throughout were scattered irregular and various-sized cavities, lined by a membrane containing a thin, bloody-coloured, serous fluid. From the surface of the tumour there could be readily scraped off a soft semi-fluid pulp, which, under the microscope, proved to be composed of granular round bodies, of nucleated cells, some elongated and caudate, and others round; of a thin, delicate, newly-formed fibrous substance, permeated by thin-walled vessels, in some situations entire, and closely interwoven to form a dense network; in others ruptured, constituting, with the surrounding cell-structure, a soft disorganized mass, discoloured by effused blood-discs. The capsule of the tumour was composed of flat fibres, very similar to those resulting from the coagulation of fibrin. The epididymis was slightly compressed; the vas deferens and the other constituents of the spermatic chord were healthy.

April.—After remaining tolerably well for a little time, a swelling was clearly felt on the left side of the lumbar region, and pains in the loins came on, becoming gradually so severe as to render the free administration of narcotics necessary in order to procure rest.

Under the common denomination of cancer are included affections, which, agreeing in their mostly painful character, their development as secondary affections in various organs and structures, after their primary appearance in any part, their intractable character, destructive progress, and fatal termination, present, in other respects, such as their general aspect, consistence, and colour, their minute structure, their relation to the organs, in or near which they are developed, and the ages at which they most frequently occur, points of difference so striking that they cannot be brought under one description, and ought to be distinguished by different names, if we wish to avoid inaccuracy and confusion.

In cancer, as seen in its most frequent seat, the female breast, the affected part, a single lobe, or, it may be, the entire mammary gland, is converted into a homogeneous hard and incompressible substance, in which no traces of the original structure are observable, unless the opaque whitish or yellowish streaks, irregularly distributed through it, and not constantly present, are to be regarded as obstructed lactiferous tubes. The section of such a morbid mass presents a somewhat bright and glistening surface of a light grey colour, a thin section being slightly translucent. The boundary, in some instances, is clearly defined, while in others the surrounding adipose and cellular textures are more or less indurated.

The term scirrhus, which ought to be confined to the malignant induration of cancer, is often used vaguely, even in medical and surgical writings, being applied not only to the hardening, which is the first stage of cancer (the *occult cancer* of older writers,) but also to the indurated state in which organs are often left after inflammation. In this condition, which, probably, is never malignant, the characteristic structure, although obscured, can be readily traced be anatomical examination.

The disease heretofore called soft cancer, and since variously designated as medullary, encephaloid, cerebriform tumour, was called by the late Mr. Hey fungus hæmatodes, which name I should be disposed to retain, as the natural progress of the affection is to the formation of a bleeding fungus, while its consistence is often too firm to justify the epithets medullary or encephaloid. Its true nature is best observed in the testicle, when the disease is not very far advanced, as in cases 2 and 3. We then see that, instead of being like cancer, a change of structure in the organ, it is an entirely new or adventitious formation as a tumour, circumscribed by a well formed capsule, over which the glandular substance of the testis is spread, unaltered in its organisation. This, at a later period, is so extenuated, as to escape observation, and the greatly enlarged testicle then presents an appearance, supposed to be produced by conversion of the gland into the peculiar morbid growth. The origin and development of fungus hæmatodes as a new or adventitious deposit is equally and beautifully illustrated in the eye, and may also be traced by careful examination in

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other organs. It may therefore be regarded in all these cases, as well as in its frequent development in the cellular tissue, as a new deposit or tumour; while cancer, in its primary form, is change of structure in a part. Perhaps, however, the diseased product of fungus hæmatodes may in rare instances be found infiltrated among the natural constituents of a healthy organ.

Fungus hæmatodes of the testicle, as illustrated by the cases now related, is developed within the tunica albuginea as a distinct tumour, bounded by a well-defined fibrous capsule. The morbid growth, composed, even in its earliest stages, of nucleated cells, is frequently formed without pain; it increases quickly, becoming permeated by newly-formed, thin-walled bloodvessels. It encroaches upon the glandular substance of the testicle, which, as in cases 1, 2, and 3, becomes spread out in a thin continuous layer over its convexity. The tunica albuginea is then distended, and the growth, now more painful, is harder to the feel. With the gradual thinning and distension of this fibrous covering of the testis, the consistence of the structure contained within becomes apparent; part of it feels elastic, as if occupied by pus or some other fluid; frequently an obscure sense of fluctuation can be felt. With the further enlargement of the tumour, the tunica vaginalis becomes partially obliterated by adhesion; its cavity is divided into compartments, one or more of which may contain fluid. If the disease be allowed to pursue its course, the integument becomes adherent, then red and thin ulceration might be expected to take place, as in other instances of fungus hæmatodes. This event is anticipated, at least in most cases, by removal of the testicle, or by extension of disease along the spermatic chord upwards into the abdomen. The deposit of the same morbid structure pursues the course of the deep absorbent vessels. Patients then complain of pain and uneasiness in the loins; of a dragging weight extending to the bend of the thigh. Without cause obvious to themselves, they become thin, sallow, and emaciated, subject to night perspirations, and often troubled with a distressing cough. Upon examining the body of a patient who dies labouring under these symptoms, we find the region of the spine covered by a large mass of morbid substance, the exact nature of which has not been ascertained; that is, whether it is an entirely new deposit, or a degeneration of the lumbar glands. The latter, however, are frequently diseased in the pelvis and loins.

The rapidity with which these internal affections are developed, and the size which they may attain, are both worthy of observation. These points are well illustrated in the following case, which derives additional interest as an example of the combination, in the same organ, of morbid structures apparently heterogeneous.

ENLARGEMENT AND INDURATION OF THE RIGHT TESTICLE,

WITH EFFUSION OF FLUID INTO THE TUNICA VAGINALIS—EXTIRPATION OF THE GLAND—EXAMINATION OF THE MORBID PARTS—CARTILAGINOUS GROWTH IMBEDDED IN A MASS OF MEDULLARY DISEASE—DEATH AFTER SEVEN DAYS FROM EXTENSION OF THE DISEASE INTO THE ABDOMEN.

Case 4.—Arthur K., aged 38, labourer, an irritable man, of restless disposition, and with an anxious countenance, states that, two years ago, being in perfect health, he received a blow upon the right testicle from a mason's hod. The pain soon passed away, and he felt no inconvenience during the ensuing week, at the expiration of which time he accidentally noticed at the lower part of the testicle a small, firm, and painful nodule, which soon became confluent with other similar nodules developed in different parts of the organ. The testicle attained its present size eighteen months ago, and has given him no pain except after violent exertion, when he has experienced weight and uneasiness in the lumbar region.

Admitted December 24, 1849.—There is now a pyriform enlargement of the right testicle, the large end downwards, the smaller end, with distinct fluctuation, tapering towards the inguinal ring, seven inches in length, nine in the greatest circumference. When grasped with the hand, which caused no pain, a mass of almost stony hardness was felt below the upper fluctuating and semi-transparent portion. The right inguinal glands were slightly enlarged and indurated.

He was confined to bed, and ordered to use a cold lotion, and to take opening medicine when necessary.

January 2.—A trochar introduced into the upper part of the swelling drew off an ounce and a half of clear yellow fluid; a mass, perfectly hard below, but softer above, remained in the scrotum. Microscopic examination detected in the fluid bodies somewhat resembling pus corpuscles, but differing from them in not presenting, when treated with acetic acid, the internal granules peculiar to those cells.

Jan. 3.—He complains of great pain, shooting from the lumbar region to the right testicle.

A warm bath; half an ounce of castor-oil, with twenty minims of laudanum, to be taken immediately.

Jan. 5.—He has headache, thirst, hot skin, and loaded tongue; pulse rapid, and without much power.

Two grains and a half of mercury and chalk to be taken every eight hours; effervescing draught occasionally.

Upon the subsidence of these feverish symptoms I proposed to the patient the removal of the organ, and performed the operation in the usual manner, Jan. 12.

Examination of the Morbid Parts.—The opposed surfaces of the tunica vaginalis were adherent, except to a small extent at the upper and anterior part. The firm mass presented a lobulated structure, of pale greyish pink colour, in some parts vascular, in others stained of a light yellow hue. The yellow portions were firm and close textured; the other portions were of softer consistence, and in some parts pulpy and semi-fluid. In the lower and back parts an oval cartilaginous tumour, surrounded by a distinct capsule, was imbedded in the morbid mass; its cut surface presented some spots where ossification had commenced, others where a process of softening was going on. Under the microscope it appeared in its minute structure like temporary cartilage in the embryo. The soft structure was composed of the ordinary nucleated cells of cancer.

He went on favourably until the third day after the operation, when he complained of pain in the loins.

Jan. 16th.—Has had no sleep; the pain is more severe; countenance anxious and flushed, pulse 100, bowels confined.

A third of a grain of hydrochlor. of morphia at night.

A draught of tartrate of soda every eight hours.

19th.—Having been completely relieved by the medicines last prescribed, he was suddenly seized in the evening of this day with excruciating agony in the loins and abdomen; the pulse sank, the power of articulation failed, and he died after four hours of intense suffering.

Examination of the Body.—The peritoneum was perfectly healthy; there was no trace of inflammatory effusion in any part. Upon drawing the intestines to one side, there was exposed a large tumour, extending from the promontory of the sacrum to the cœliac axis, surrounding the vessels in that situation. At the upper and posterior part there was an ulcerated opening, from which could be squeezed a thick creamy fluid, of which a considerable quantity was found in the pelvis. A small tumour, the size of a hen's egg, surrounded the chord of the diseased side, just within the internal abdominal ring. It admitted, however, of being readily detached. All the morbid structures presented the characters of fungus hæmatodes.

The other viscera were healthy.—*From the Hospital Case Book, Vol. III.*

As the progress of fungus hæmatodes cannot be arrested, either by local applications or internal remedies, the propriety of an operation is the practical question of chief importance. It is clearly established, as the result of general experience, that in true fungus hæmatodes the removal of the disease, whether situated in an organ, as in the testicle, or occurring as a tumour in the cellular texture, does not prevent a fatal termination which ensues on a return of disease in the part, or on its secondary development in important internal organs. The only exception to this unfavourable view is where the disease occurs in the articular heads of the bones composing the knee-joint.

Patients generally wish to have the part removed when treatment has proved unavailing, while the increasing bulk and pain of the disorder may render the operation advisable as a means of temporary relief. Further, neither the history nor the external characters of the disease convey to us so clear a knowledge of its exact nature as to enable us to pronounce in each instance that it is inevitably fatal. In some instances it is doubtful whether an enlargement of the testicle is malignant or of innocent nature. If, therefore, the chord is free from disease, (it may be simply enlarged and thickened from the weight of the enlarged testicle,) if no swelling can be felt, and no pain has been experienced within the pelvis or in the lumbar region, it will be proper

to take the chance of operation, particularly if the patient wishes it, and we thus occasionally meet with success where we have not expected it, as will be shown by the following examples.

FUNGUS HÆMATODES OF THE RIGHT TESTICLE.

REMOVAL OF THE PART IN 1849—NO FURTHER APPEARANCE OF DISEASE TO THE PRESENT TIME.

Case 5.—A gentleman, about 50, of robust frame and constitution, and excellent health, observed accidentally, towards the end of July or beginning of August, 1849, that his left testicle, in which he had not perceived the slightest uneasiness, had become enlarged. Remaining perfectly free from pain, it increased slowly and steadily, not causing any interruption in the ordinary active and laborious pursuits of the patient. Four or five surgeons who saw the case were all of one opinion respecting its malignant nature. Various means, including the internal and external use of the iodide of potassium and of mercury, were tried, without the slightest apparent influence on the progress of the disease. I removed the part, which had never caused pain or affected health, in December, 1849. The character of the disease closely resembled those of Cases 2 and 3. The recovery was rapid and complete; and the patient has been since, and is still in perfect health, constantly and actively occupied in an arduous profession.

FUNGUS HÆMATODES OF THE RIGHT TESTIS—REMOVAL OF THE PART—NO RETURN OF THE DISEASE.

Case 6.—Five years ago I extirpated the right testis of a gentleman, aged 45, of active habits and in good health. The condition of the organ, when examined, was as follows:—The spermatic vessels were full and enlarged; the vas deferens was thickened at its lower part; the epididymis was healthy, but surrounded by a mass of soft substance, which had made its way from the upper part of the testis under the tunica albuginea. A vertical incision through the gland exposed a morbid growth of soft consistence, equal in size to a goose's egg, covered by the brownish-yellow tubuli seminiferi, which, healthy in structure, were spread out in a thin continuous layer over the tumour. The tunica albuginea, though thinned in parts, was everywhere entire. The microscopic characters of the substance of the growth were similar to those observed in the preceding cases; it was made up of nucleated cells. When I last heard of this gentleman, who lives in a distant part of England, he was well; and I have every reason to believe that, had anything befallen him, he would have again given me an opportunity of seeing him.

DISEASE OF THE TESTICLE—SUPPOSED TO BE MALIGNANT—OPERATION—PERFECT RECOVERY.

Case 7.—Many years ago, I removed the testicle of a gentleman between 40 and 50, on account of a disease which had existed nearly twelve months, and had slowly increased to a size exceeding that of a large goose egg, in spite of treatment by leeches, lotions, poultice, iodide of potassium, and mercury. It was of oval shape and moderately firm consistence. It had been attended with considerable pain, which had impaired appetite and interfered with rest, causing loss of flesh, with sallow, unhealthy aspect of countenance. Influenced probably by the latter circumstances, the majority of those who were consulted in London were unfavourable to the operation. The change of structure, as observed on dividing the testicle, presented neither uniformity of appearance nor decided character. The diseased substance was vascular, with bloody appearance in several parts. None of it had the soft medullary structure, nor could any creamy matter be scraped from the cut surface. There were no traces of the natural structures of the organ. The wound of the operation healed without any unfavourable occurrence; the recovery of health and strength was tedious but complete. In less than a year, this patient had become robust, and able to take all the strong exercise incidental to the active life of a country gentleman, which he has continued to follow without interruption.

In most cases, the distinction between diseases of the testis which are malignant and those which are not so, is sufficiently clear to enable us to pronounce an opinion without much hesitation. In some instances the matter is quite doubtful, especially when the consistence of the morbid growth is firm, and the point cannot be determined until the removal of the organ affords the opportunity of minute examination. The operation of castration, which is advisable in the latter, cannot be recommended in the former description of cases, although it is frequently performed at the desire of the patient, who may wish to take the chance of recovery, however slight, rather than give himself up to the inevitably fatal progress of the local affection; or may desire, at all events, to get rid of a disease troublesome by its bulk or its painful nature, especially as the relief, although temporary, can be obtained without suffering.

In considering the question of operation, we must remember, that our knowledge of these affections is far from perfect; that there may be, and probably are, differences of nature and danger not indicated by any external signs, nor connected with any clearly ascertained variations of minute structure. Hence the necessity of caution in prognosis respecting the ultimate result of operation in many of these cases.

Practical illustration of this uncertainty is afforded by the histories I have now brought before you. The characters of fungus hæmatodes are strongly marked in Case 1. We cannot rely implicitly on the representation made by the friends of this patient, that he died of consumption; there may have been secondary malignant affection of some internal organ. The operation afforded temporary relief, but death followed too quickly to allow of any satisfactory inference respecting the ultimate result. In Cases 2 and 3, the formidable secondary affection over the front of the lumbar spine has shown itself at an early period, while in Case 4 it has appeared at a much longer interval from the commencement of the malady, the local symptoms not having been such as to indicate the real character of the affection. In Cases 5 and 6, the progress and character of the swelling, together with the examination after removal, both in the obvious characters and the microscopical structure of the disease, showed most unequivocally that it was fungus hæmatodes. A very unfavourable prognosis was also pronounced in Case 7.

While these last-mentioned cases show a successful issue where an unfavourable termination has been anticipated, we sometimes meet with an unfortunate result where no apprehension has been entertained, the grounds of prognosis having been regarded in both instances as fully trustworthy. In April, 1847, I removed the left breast of a lady past fifty, on account of a lump about the size of a large walnut, of firm consistence, rather recent formation, free from pain, and supposed to be scirrhus. The latter opinion was found to be erroneous; the enlargement of undefined fibrous structure bore no resemblance to scirrhus, and microscopical examination did not lead to the slightest suspicion of malignant nature. The patient and her friends were assured, on what appeared perfectly satisfactory evidence, that there was no fear of future mischief. In September, 1849, this lady, who had been and was then in perfect health, while travelling on the continent, found a small swelling in the bend of the right thigh, which she supposed to be a rupture. It increased in size, but was unattended with pain, and did not prevent her from visiting the various scenes of interest in Switzerland and the adjoining part of Italy. In a few weeks a smaller swelling showed itself on the left side. She now came to Paris and stayed there, using active exertion until the original tumour, and a consequent general swelling of the thigh alarmed her so much that she lost no time in returning to England. When I saw her, early in February, 1850, there was a large mass of disease, including the femoral and inguinal glands of the right side, and a tumour within the abdomen of indefinite extent, the whole lower extremity being greatly swollen, the integuments of the thigh being inflamed from the recent exertion of travelling. In the bend of the left thigh there was a swelling over and below the crural arch, the size of a small apple. Death ensued in three months, the disease on the right side having attained an immense magnitude, filling the upper part of the thigh, the crural arch, the iliac and lumbar regions, and extending across the abdomen to the left, where it was met by a corresponding but smaller increase of the left swelling. A hard lump, the size of a walnut, had formed in the right breast, and two or three smaller formations had taken place under the integuments of the trunk. The cicatrix of the

operation and all the adjacent parts remained perfectly sound.

Are we to regard, in this case, the original affection of the mammary gland and the subsequent formidable disease as parts of one and the same affection, or as the casual occurrence of an innocent and malignant affection in the same individual. If we take the former view, and compare what was ascertained respecting the structure of the disease with what appeared on examination of the growths in Cases 5 and 6, we shall see reason to fear that the information respecting the nature of morbid growths, derived from microscopical examination, whether negative or positive, possesses but little practical value.

CLINICAL LECTURE ON UNUNITED FRACTURE,

AT THE

LONDON HOSPITAL.

By JOHN ADAMS, Esq.

Gentlemen,—There are three cases of ununited fracture under my care at the present time in the hospital; a fair opportunity is thus afforded to make a few observations on cases of this nature. They constitute a class of cases of a very serious character, and are very embarrassing to the surgeon. Indeed, I may say that a surgeon who has had no experience in hospital practice, meeting with cases of this description, is very likely to impute undeserved blame to himself, and to imagine that they are the result of *malpraxis*. Let me, however, divest your minds of any such impression: the simple fact, that, in the majority of fractures, the ends of fractured bones unite, however bad the position may be in which the limbs are placed, and however badly they may be attended to, will go some way to prove, that this non-union is dependent rather on some disorder of the patient himself, either local or general, than on any error on the part of the surgeon. Nevertheless, it must be admitted, that bad position, the frequent handling of fractures, and the too tight application of bandages, do occasionally lead to the non-union of fractures. So also, as in the case of the sailor, whose arm was broken at sea, the too early attempts to use the limb may lead to the same unfortunate issue. I think I am fully justified in making the remark, that non-union is more common in cases where the skin is entire than in compound fractures,—a point of some importance, if it can be fairly established, as indicating the propriety of the attempt to bring the ununited fracture into a condition as nearly resembling a compound fracture as possible, if this can be done without endangering the limb. As far as my own experience goes, the fact is as I have stated.

The first case to which I shall direct your attention is that of Samuel Little, a patient in Mellish's ward; the case is given by Mr. Stocker, his dresser, of whose report I give the following abstract:—He sustained, in May, a severe comminuted fracture of the left thigh; a cart loaded with three or four tons of sand passed over his thigh, and produced fracture. There was no evidence of injury in any other part of the body; the limb was put up in the straight position, and this treatment was maintained for seven or eight weeks, when the thigh was examined by merely removing the top splint. It was discovered then that no union had occurred; the splints were, therefore, replaced, and no further examination was made for three or four weeks more. Again it was found that no union had occurred, and so on, at the intervals of a month, further examinations have been made; and although at one time there appeared to be a greater amount of consolidation than before, yet there was no positive union. The starch bandage was employed, with gutta percha splints, for a considerable time, and yet there was no evidence of union. Now, as to the general treatment, the patient has been well-sustained from the beginning; an extra quantity of porter was ordered, and continued even to the present day. The tincture of iodine was at one time used, both internally and externally; nay, finding a want of success in all the plans employed, I gave the man mercury so as slightly to affect the gums, but still no union occurred, and still the fragments are separated, or, rather, not united. The patient is now ordered to get up, and to move about as well as he can on crutches, and to endeavour to press the broken ends together, the thigh and leg being encased in gutta percha and starch bandage. (a)

The next case is one of ununited fracture of the right humerus; the patient is in Gloster's ward. He is 49 years old, and was before the accident in good health; the accident was occasioned by his having been forcibly jammed against a post, and he had a severe contusion of the left side of the chest. For the latter it was necessary to cup him and give him calomel. He recovered from his internal injury, but, on examining the limb after the usual period, it was found ununited. A similar line of practice was pursued as in the former case; still no union; therefore, on the 3rd of January, twelve weeks after his admission, I passed a middle-sized trochar between the bones, and left the canula in for four days, when, some inflammation having arisen, it was withdrawn. This was followed by abscess, which discharged itself partly through the hole made by the trochar, and partly by another opening made by myself. There was a good deal of constitutional disturbance and fever, but that soon subsided, as did the inflammation of his arm, and the discharge, which had entirely ceased, has now returned, and there is evidence of considerable thickening along the whole shaft of the humerus, and I fancy there is a tendency to unite in the bone; at any rate there is a good deal of thickening along the bone. The splints are re-applied, his constitution is supported with good diet and porter, and he now takes quinine and acid.

The last case to which I shall direct your attention to-day is that of James Hooperk, a sailor, in Gloster's Ward, aged 51, who sustained a fracture on board ship about 15 months ago, and who received no surgical attendance until he reached California, when his arm was put up for a short time, and he was directed to use it before union had occurred. On finding that the ordinary application of splints, &c., was useless, I passed a seton between the ends of the bones, and left it there for ten days, when, a free suppuration being established, I removed it, and ordered the arm to be kept quiet in splints.

Thus you remark that, in the three cases I have briefly brought before you, there are certain peculiarities to which I now direct your attention. The first case is one in which the fracture was produced by the application of direct and extensive violence; the second is a case of fracture accompanied with injury to the chest, requiring depletion; and the third is a case of fracture occurring at sea, where good advice could not be obtained, and in which the patient attempted to make use of his arm before it was united.

Now, is there anything wrong in the treatment I pursued in the two first cases, of which I can reproach myself? (for I had nothing to do with the last until lately.) I really think not; and, if I had to treat two parallel cases to-day, I should adopt precisely the same line of practice as I pursued in them. What, then, is the cause of the unfortunate result in these cases? I think that, in the first case, the extent of bruise, possibly comminution of the bone, may be set down as the probable cause of non-union; and I cannot help thinking that, in the second case, something may fairly be attributed to the antiphlogistic treatment which was mildly put in force for the relief of his thoracic symptoms, and which consisted merely in the use of cupping and slight mercurialisation.

But there are many things of interest, the thoughts of which are called up on reviewing these cases. Let me, however, make an observation or two on my own treatment, and anticipate a question which may be fairly asked in regard to the exhibition of iodine and mercury in cases of non-union of fracture. What is the principle on which such medicines have been recommended? I confess, with regard to the first, that the internal employment of iodine is somewhat empirical. I have seen it used with advantage, and I was therefore disposed to try it. The good effects of this medicine in these cases is perceived by a shooting pricking sensation in the part, and this is succeeded by an apparently increased action in the vessels of the periosteum, which leads to a deposition of bony matter. The local application of the tincture of iodine is useful in inducing inflammation of the adjacent tissues with which it comes in contact.

Now, with regard to mercury. Mercury is undoubtedly useful where there is a syphilitic taint in the constitution,

(a) Since the report of the case there has been more evidence of union than heretofore.

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and where the union of the fracture is prevented by this peculiar poison circulating in the blood, and thus preventing those natural actions which lead to a consolidation of the fracture: I say those natural actions, because it is just as natural that a fracture should be repaired by the ordinary operation of the constitutional powers, provided no interruption take place to their customary progress, as that the epiphyses of bones should be consolidated at the termination of growth. Neither the iodine nor the mercury did any good in the case alluded to, and I therefore discontinued their use, being under the impression that they might possibly do harm if continued too long.

You will find, in the 31st volume of the "Transactions of the Royal Medical and Chirurgical Society," a report of some cases of ununited fracture, treated by Mr. Page, formerly a student at this hospital, and now Surgeon to the Cumberland Infirmary. A variation of treatment was had recourse to in the management of these cases, which presented features of considerable difference. Five cases are reported, and all ended successfully; but I wish you especially to regard the fifth case, which was one of ununited fracture of the tibia and fibula, occurring in a young man in whom a syphilitic taint existed. The exhibition of mercury so as fully to affect the system produced immediate consolidation of the fracture. In one of the remaining cases the exhibition of stimuli induced a similar advantageous effect.

From reflecting on the three cases now under my care, as well as from the perusal of other instances on record, (and these are, unfortunately, too numerous,) you will perceive that the causes preventing the consolidation of bones after fracture are various; they may all, however, be ranked under two heads, namely, general and local. In regard to local causes, the idea has often crossed my mind that injury to the nutritious arteries of the bones may have some influence in the prevention of the consolidation of bones. But to this notion it may be objected, that non-union may happen in fracture occurring in any part of the shaft of a long bone, whereas the nutritious artery is found only in one spot. I have, however, with this impression in my mind, made an examination of the situation of the nutritious arteries in seven humeri and six femora taken indiscriminately, and have been much struck with the variation in number and situation of these openings for the transmission of the nutrient arteries. Thus you will perceive that they vary in number, from one to four; and there is also a remarkable difference in their position and size.

Nutritious Arteries of Humerus, and their Measurement in Distance from Head of Humerus.

				Humerus.
No. 1	4 foramina	..		1st. 3 3-10 in. large. 2nd. 5 1-5 in. small. 3rd. 6 6-10 in. small. 4th. 8 1-10 in. large.
No. 2	2	„	From same subject.	1st. 4 3-10 in. small. 2nd. 7 6-10 in. large.
No. 3	2	„	From same subject.	1st. 2 2-10 in. small. 2nd. 7 2-10 in. large.
No. 4	2	„	..	1st. 6 8-10 in. large. 2nd. 7 3-10 in. smaller.
No. 5	2	„	..	1st. 2 8-10 in. large. 2nd. 7 in.
No. 6	1	„	..	1st. 8 5-10 in. large.
No. 7	3	„	..	1st. 3 8-10 in. small. 2nd. 5 7-10 in. large. 3rd. 7 5-10 in. small.

Measurement of Nutritious Artery in Femur from Trochanter Major.

				Femur.
No. 1	2 foramina	..		1st. 2 in. small. 2nd. 5 in. large. 3rd. 10 5-10 in. very small.
No. 2	3	„	..	1st. 5 5-10 in. large. 2nd. 6 6-10 in. very small. 3rd. 10 5-10 in. ditto.
No. 3	1	„	..	1st. 7 in. large.
No. 4	2	„	Both from same subject.	Femur. 1st. 5 6-10 in. large. 2nd. 9 in. large.
No. 5	4	„	Both from same subject.	1st. 2 1-10 in. small anterior. 2nd. 5 5-10 in. very small. 3rd. 10 2-10 in. large. 4th. 12 2-10 in. very small.
No. 6	2	„	..	1st. 6 4-10 in. large. 2nd. 10 8-10 in. small.

Whether any importance is to be attached to this table in regard to non-union of fracture I am not prepared to say, as I have had no opportunity of testing it by examination after death; but I cannot help thinking that it is a matter of some importance in the investigation of this subject. Mr. Curling, in a note to a Paper published in the 20th volume of the "Medico-Chirurgical Transactions," has made an allusion to the subject of the variation in number and situation of the nutritious arteries of the humerus and femur as bearing upon the question of atrophy of bone after fracture; although in this paper no reference is made to this circumstance in explanation of non-union of fractures of the shafts of long bones.

As to treatment of ununited fracture, I shall place out of our consideration the question of the general treatment, as this is usually indicated by the peculiarity of the constitution, and our means must of course be directed to the correction of any defect which may on examination become obvious to our senses.

But the local treatment is of the highest importance; and our attention must be in a great measure directed to it. Let us see what is the end in view? To excite the vessels of the bone and periosteum to throw out new bony matter. Now, this is to be accomplished by inducing an increased action, so to speak, in the vessels of the part, and by altering the relation of the periosteum to the bone itself, which it has acquired during the progress of healing; for the bone may be said to have healed without consolidation or union of the broken ends. Thus it will be found, on examination of ununited fractures, that the ends of the bone are smoothed off and covered by periosteum, or else they are united by a ligamentous medium passing from one end of the bone to the other, as is exemplified in cases of fracture of the patella.

Sometimes the union is retarded, if not prevented, by want of juxtaposition. This is especially the case in transverse fracture of the patella; and hence the careful reapplication of the parts, and their retention by suitable contrivances, constitute the sole treatment. But in other cases this is not sufficient, and it becomes necessary, as I have stated, to excite an increased action in the vessels of the bone and periosteum by the employment of some means of stimulation. It is well for us, however, to consider what the agent is by which the repair of bones takes place; and, although there are some differences in opinion on this subject among physiologists, yet all seem agreed that the periosteum is a main agent in the process. On this point of our subject, I would refer you to the account of the numerous admirably-contrived experiments of Flourens,(a) wherein you will find this subject fully treated, and the question in a great measure set at rest; his opinion, resting on the result of his experiments, being to the effect, that the periosteum is the principal agent of ossific regeneration.

The same physiologist has also shown that, when foreign bodies are lodged in a bone, as a bullet, &c., a large quantity of ossific matter is deposited around it. You will find allusion made to this subject in the *Medical Times* for January 16, 1847, by Dr. Bushnan; and reference is again made to it in the number of the same Journal for February 22nd, 1851.

To excite the necessary action in the periosteal vessels, friction of the ends of the bone against each other, as recommended by Celsus, may be had recourse to; but it is rarely successful, and something more is necessary. Thus we may convert a simple into a compound fracture, by cutting down on the separated ends of the bone, and sawing them off, and thus leave the bone to granulate as in compound fracture,—a plan sometimes pursued with success, but sometimes attended with a fatal result. Or you may pass a seton between the broken ends, and, leaving it in for a few days, thus excite inflammation of the periosteum, which possibly may lead to bony deposit and union. This plan, however, often

(a) "Recherches sur le Développement des Os et des Dents."

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fails; and, acting on the same principle, you may introduce a foreign body, as a trochar, between the broken ends; you leave the canula in until such an amount of inflammation is excited as will effect your purpose. I pursued this plan in one of the cases mentioned, and produced inflammation to such an extent as to lead to extensive suppuration, and I am happy to say that this has been followed by complete consolidation. Lastly, you may put into operation the plan of Dieffenbach, as alluded to in a recent number of the *Medical Times*, which consists in boring holes with a gimblet in the upper and lower fragment, and inserting ivory pegs, somewhat after the fashion of the pegs of a cribbage-box, and when they become loosened by suppuration removing them. The pegs act as foreign bodies, and bony matter is thrown out around them by the vessels of the periosteum. I shall take the first opportunity to adopt this method of treatment, as being based on a really scientific foundation.

At the conclusion of the lecture, Mr. Adams mentioned two cases of diabetes, combined with syphilis, one of which had been lately under his care, and the other now in the hospital; in both of which the bichloride of mercury, in doses of 1-12th of a grain, had been administered, in combination with extract of sarsaparilla. The gums were slightly but speedily affected; and in both cases a rapid diminution of the secretion occurred. In the case now in the hospital, —the case of a young woman labouring under syphilitic rupia,—the secretion, which amounted daily to two gallons, diminished one-half in the course of a week; but the good effects of the mineral had not been maintained. Mr. Adams exhibited to the students, with the assistance of the dresser, Mr. Stocker, the indications of sugar in the urine as afforded by Trommer's and Moore's tests.

LECTURES ON PUBLIC HEALTH.

ADDRESSED TO THE STUDENTS OF THE THEOLOGICAL DEPARTMENT OF KING'S COLLEGE.

By WILLIAM A. GUY, M.B. Cantab.,

Dean of the Medical Department of King's College, Professor of Forensic Medicine, and Physician to King's College Hospital, &c.

(Continued from p. 316.)

CONTENTS.—Vaccination continued.—Extent to which Vaccination is practised among Children attending School.—Mr. Marshall's Inquiries.—Jews more careful in this matter than Christians.—Opportunities of extending Vaccination enjoyed by the Clergy.—Character of Jenner.—His Feelings in Reference to his Discovery.—Jenner an Example that the Pursuits of Science are not unfavourable to Religion.—Howard and the Gaol Fever.—Sketch of the Life of Howard; his Captivity; his Exertions on Behalf of his Fellow-prisoners; his Sanitary Reforms at Cardington; their Consequences.—Contemporaneous Labours of Oberlin in the Ban de la Roche—Howard's Prison Labours; his rare Industry.—Exemplary Promptitude of the Legislature—Acts of 1774 for Improving the Health of Prisoners, and correcting the Abuses of Prisons.

THE inference which we should be led to draw from the high mortality from small-pox still taking place both in the metropolis and in other parts of England, that vaccination is very often neglected, has been very fully confirmed by some inquiries lately set on foot by Mr. Marshall. By inspections made, either by himself or by his friends, of children attending schools in town and country, and embracing upwards of 4000 children belonging to the lower classes of society, he found that about 20 in the 100 had never been vaccinated. After making a very liberal allowance for children belonging to the upper and middle classes of society, among whom vaccination is more generally practised, Mr. Marshall arrives at the conclusion, that upwards of 10 per cent. of the whole number of children is unprotected by vaccination, and that every year 54,000 children are being added to the number of those from whom this boon is withheld. Among the school-children examined by Mr. Marshall or his friends, the proportion of unvaccinated born since the passing of the Vaccination Extension Act was 12 per cent., or 1 in 8, in the metropolis, and 31 per cent., or 1 in 3, in the country; while in one country school the ratio of the unvaccinated rose as high as 61 per cent. Mr. Marshall extended his inquiries so as to embrace the number of protected and unprotected children who had had attacks of small-pox; and he found that, out of 783 children who had never been vaccinated, no less than 400, or more than half the number, had had small-pox; while of 3408 who had been vaccinated, only 148, or little more than 4 per cent., had subsequently had small-pox.

One of the most interesting results of Mr. Marshall's inquiries, however, and one which I would commend in a very special manner to your notice, is the great disparity existing in the matter of vaccination among Jews and Christians. Having embraced in his inspection sundry Jews' schools attended by the poor of that community, he found that, while the country schools attended by Christian children from 3 to 14 years of age, contained no less than 13½ per cent. of the unprotected, and the Metropolitan Christian schools upwards of 5 per cent., the Jewish schools had considerably less than 1 per cent. (85 in 10,000) who had never been vaccinated. Mr. Marshall also institutes a special comparison between the Jews of Houndsditch and the Gentiles of Tothill-fields. He says, "they alike reside in crowded houses and apartments, and alike belong to the lowest ranks of their respective denominations. The former, however, have only 5½ per cent. of their children unvaccinated, whilst the latter have as many as 30 per cent."

This superior carefulness of the Jews ought surely to stimulate Christians to greater circumspection. The comparison is as creditable to them as it is discreditable to us.

I should not have devoted so much attention to this one subject, if I had not believed that I could make a practical application of my facts and figures to the "parochial functions of the clergy." Believing that the clergy might exert themselves with equal advantage and propriety in extending the boon of vaccination to great numbers of persons from whom it would otherwise be withheld, I have thought it necessary to place before you conclusive evidence of the value of vaccination—evidence concerning the force of which you may form your own independent judgments. Assuming (what I cannot allow myself to doubt) that you will hereafter be desirous of exerting yourselves to bring about the vaccination of your poorer parishioners—to take care that no poor child shall through any negligence on your part be deprived of so valuable a protection—I need scarcely tell you that you will meet with many parents prejudiced against vaccination, who can only be convinced or influenced by one who has good and sufficient reasons to offer, or who is able to speak with the confidence which the possession of such reasons will inspire. This is my motive for entering so much into detail. Assuming, as I have said, that you are anxious to bring about the vaccination of the children of the poor, I need scarcely remind you of the opportunity which your superintendence of schools will afford you of ascertaining whether the children in attendance upon them have been vaccinated or not. In some cases, at least, it may be quite practicable to make vaccination a condition of admission to school; but, where this may not seem expedient, the question whether the children have or have not been vaccinated, should be put, and, if answered in the negative, no time should be lost in endeavouring to prevail on their parents to have the operation performed. The appointment of public vaccinators in all the Unions throughout the country removes all practical difficulty in getting children vaccinated; and in cities and towns there is not an hospital or dispensary which does not offer the requisite facilities.

In rare instances, especially among the very poorest population of our large towns, it will sometimes be impossible to learn by inquiry whether a child has or has not been vaccinated. In this case, it will be very easy to satisfy yourselves by ocular demonstration. If a child have been vaccinated, you will find on both arms, or on one arm, and that generally the left, about half way down the upper arm, on the outer side, just where the short sleeve of a child's frock comes to, one or more round, white, indented spots, from the size of a fourpenny piece to that of a sixpence, marked with several small indentations, as if made with the point of a pin. This is the scar left by vaccination. Whenever this is not present, the child should be put without delay under the hands of a vaccinator. The most favourable age, on the whole, is about three months; but the operation may be performed at any age, provided the subject is in good health. During epidemics of small-pox, it becomes doubly necessary to have recourse to vaccination, and when the epidemic is of unusual severity, it may be well to recommend those who have not been vaccinated for seven years,

to have the operation repeated. This, though not necessary, is perhaps expedient.

As I cannot but feel that there are few secular matters which come more naturally under the cognizance of the clergy than this, I again commend the subject of vaccination to the notice of those who are intended for the ministry. There is no one who may not, by exerting himself to extend vaccination among his parishioners, enjoy the enviable satisfaction of having saved life and averted suffering.

Before I quit the subject of vaccination, I must be allowed to pay a tribute of respect to the character of the man to whom, under Providence, we are indebted for the greatest boon yet conferred upon the human race.

A poet, a naturalist, a physician, the pupil and friend of John Hunter, and trained by him to observe and to experiment, endowed also by nature with a peculiar turn for observation, Jenner had, even while an apprentice, become cognizant of the simple fact which he was destined to convert, by laborious observation and well-devised experiment, into a great truth. Others had heard what he heard, and seen what he saw, but it was reserved for him alone to extract from the neglected gossip of the dairy, the precious instruction which had so long lain concealed in it. In perfecting his great discovery, and bringing it to the decisive test of experiment, in promulgating and defending it, I need not tell you that he had to encounter grievous opposition, the compassionate incredulity of friends, the envious carping of rivals, the misrepresentations of enemies,—in a word, that he had to undergo the martyrdom which seems to have been decreed as the lot of those who confer on the world the boon of great discoveries. It redounds greatly to the credit of Jenner, that he bore these severe trials well; and that these annoyances had as little power to irritate him, as his ultimate success had to impair the native modesty and unassuming worth of his character. Unspoiled by flattery, and unchanged by success, he continued to the last the same kind, affectionate, simple, truthful character he had ever been; constant in his attachment to natural history, active in the discharge of all his duties as a citizen, and unremitting in his attention to the poor. But I have peculiar pleasure in adverting to the tone and temper of mind which Jenner displayed when contemplating his great discovery. At the period which immediately preceded the announcement of the efficacy of vaccination as a preventive of small-pox,—a period when, as his biographer, Dr. Baron, justly observes, "the situation in which he stood has seldom had a parallel in the history of our race," it was his custom to meditate on his great theme as he rambled in the meadows under the Castle of Berkeley. What his feelings then were he shall himself explain. "While," he says, "the vaccine discovery was progressive, the joy I felt at the prospect before me of being the instrument destined to take away from the world one of its greatest calamities, blended with the fond hope of enjoying independence and domestic peace and happiness, was often so excessive, that, in pursuing my favourite subject among the meadows, I have sometimes found myself in a kind of reverie. It is pleasant to me to recollect that these reflections always ended in devout acknowledgments to that Being from whom this and all other mercies flow." Let us now view him at the end of a long life spent in the service of his fellow-creatures, only a few days before his last fatal seizure, addressing his biographer in these remarkable words:—"I am not surprised that men are not thankful to me; but I wonder that they are not grateful to God for the good which he has made me the instrument of conveying to my fellow-creatures." How thoroughly in keeping with this frame of mind, too, is this fragment of a prayer, found among his papers, and supposed to have been written in a time of great affliction:—"And may those sacred truths revealed by Him who did condescend to assume a human form, and appear among men upon the earth, be so engrafted on my mind, that I may never lose sight of these thy Divine mercies; and thus, by my faith and practice, when it may please Thee to send my body to the grave, may my imperishable soul be received into Thy habitations of eternal glory."

I quote these passages from the life of Jenner, in order to prove that in his case at least there was no ground for the misgiving which is sometimes felt, that a devotion to scientific pursuits is unfavourable to religion; and I take this opportunity of expressing my own deliberate conviction, that if the histories of the great scientific discoverers were accurately compared with those of persons who have attained distinction in other pursuits, that misgiving would be found to rest upon a very insecure foundation. So far from scientific pursuits being unfavourable to religion, I believe that no class of purely secular studies would be found so conducive to it. The purer forms of religious belief have nothing to fear from science; the corrupt alone, slaves to a fatal necessity of offending against the simple laws of nature at the same time that they distort or overlay the fundamental doctrines of revelation, may find it to their interest to decry and discourage such studies as those which issued in the discovery of vaccination.

I have now examined two out of the three diseases the prevention of which rendered memorable the last half of the eighteenth century, and I have mentioned with befitting honour two out of the three great names associated with the discovery of the means of prevention. I now pass on from Cook and scurvy, from Jenner and small-pox, to Howard and the gaol fever; and as I have just concluded the subject of vaccination with some allusion to the character of Jenner, so I propose to preface my account of the state of prisons in the last century, and the gaol fever, by a very short sketch of the life of John Howard.

In the year 1756, an English merchant vessel was taken by a French privateer. The crew and passengers, after being kept under hatches for above forty hours, with scarcely a morsel of food, and not one drop of water, were carried into Brest, and confined as prisoners of war in the castle, where they lay for six nights on straw, half starved, in a damp and unwholesome dungeon, after which they were separated and dispersed through the prisons of Brest, Morlaix, and Dinnan. Howard, who was among the passengers, was first liberated on parole, and then exchanged for a French naval officer. Thus happily released from captivity, he did not, as the great majority of mankind would have done, forget those whom he had left in the prisons of France; but on his arrival in England, being still on parole, he lost no time in putting himself into communication with the commissioners of sick and wounded seamen, who succeeded in procuring from the French Court the liberation of the poor prisoners. Here, again, most men would have rested satisfied. Howard had promptly obeyed the dictates of conscience and humanity, and was largely rewarded by the liberation, not merely of the surviving companions of his captivity, (too many had already sunk under the hardships they had had to endure,) but of all the prisoners who had been made to share their sufferings. Such an achievement might well form the retrospect of a life; but it was far otherwise with John Howard, for no sooner did his official duties as High-Sheriff of the County of Bedford (to which office he was appointed about seventeen years after his captivity in France) bring him again into contact with the poor prisoner than he began that long series of labours on his behalf which was destined to terminate only with his own existence. During the seventeen years which elapsed between Howard's captivity in France and his appointment as High-Sheriff of the County of Bedford, nothing seems to have transpired to interest him afresh in the condition of the prisoner. But he was, so to speak, in training for the business which has made his name so famous in the annals of philanthropy. He was discharging his duties as a landlord on his estate at Cardington, near Bedford; slowly, but surely, conferring upon a poor, sickly, and wretched population the boon of health, comfort, and competence, by striking at the root of those Upas-trees of squalid misery and demoralisation,—unwholesome dwellings,—and substituting for them cottages fit for human beings to live in; inculcating and encouraging the virtues of industry, sobriety, and cleanliness; furnishing the people with employment; assisting them in sickness and distress, and educating their children: thus anticipating, by the better part of a century, the wisest and most humane of the schemes now being carried out for improving the condition of the labouring class.

As there is no subject, at the present moment, so important as the means by which the working class, whether in town or country, may be raised from the degradation into which they have been suffered to fall, you cannot fail to be interested in the plans adopted for that purpose by so practical a man as Howard. I will, therefore, quota a few passages relating to this subject from the pens of his biographers, premising that Cardington was inhabited by a very poor population, liable to great distress from the fluctuations of the lace manufacture, and from the agues and other diseases incident to a damp and marshy soil, increased

by deficient house accommodation. "At different times," says one of his biographers, Mr. Brown, "he pulled down all the cottages on his estate, and rebuilt them in a neat but simple style, paying particular attention to their preservation, as much as possible, from the dampness of the soil. Others, which were not his property before, he purchased, and re-erected upon the same plan, adding to the number by building several new ones in different parts of the village. To each of these he allotted a piece of garden ground, sufficient to supply the family of its occupier with potatoes and other vegetables, and generally ornamented them in front with a small fore-court, fenced off from the road by neat white palings, enclosing a bed or two of simple flowers, with here and there a shrub or an evergreen, thus imparting to these habitations of the poor, with their white fronts and thatched roofs, that air of neatness and comfort so strikingly characteristic of everything in which he engaged." "These comfortable habitations, which he let at a rent of twenty or thirty shillings a year, he peopled," says Dr. Aiken, "with the most industrious and sober tenants he could find; and over them he exercised the superintendence of master and father combined. He was careful to furnish them with employment, to assist them in sickness and distress, and to educate their children." He particularly insisted on the virtues of industry and cleanliness, recommending the housewives to keep their houses clean, and to "swill the floors well with water," and the children to be "good boys and girls, and keep their faces and hands clean." Howard also established schools for the education of the children of both sexes, whom he strictly required to regularly attend some place of worship on Sundays. In consequence of these exertions of Howard's, seconded by those of his relative, Mr. Samuel Whitbread, who possessed property in the same neighbourhood, "Cardington, which seemed at one time to contain the abodes of poverty and wretchedness, soon became one of the neatest villages in the kingdom—exhibiting all the pleasing appearances of competence and content, the natural rewards of industry and virtue." This great work of physical and moral improvement was going on from the year 1756 to the year 1773; but most actively after Howard's return from abroad in 1770. Just three years before this date, namely, on the 30th May, 1767, the good pastor Oberlin began his labours of love in the Ban de la Roche, constructing roads and bridges, himself handling the pickaxe and the spade; repairing and rebuilding cottages; erecting schools for children and infants; dispensing medicines; opening stores for the sale of agricultural implements; apprenticing lads to trades needed in the district; planting fruit trees; encouraging the laying out of gardens and orchards; improving the breed of cattle; introducing the practice of stall-feeding; enforcing the economy of manure, and the formation of compost-heaps; replacing the fast-degenerating potato by new seed; sowing clover and artificial grasses; promoting the growth and dressing of flax; setting on foot the plaiting of straw, and the spinning and weaving of cotton; establishing agricultural societies and prizes; purchasing philosophical instruments; delivering lectures on agriculture, vegetable physiology, and natural philosophy; training teachers; establishing itinerating libraries; publishing (with a view of superseding the ignorant and superstitious productions previously circulated under that title) an almanack; founding an auxiliary Bible Society; composing local differences; bringing to a happy conclusion a vexatious law-suit which had for many years destroyed the harmony of the neighbourhood; and, with a rare union of patriotism and philanthropy, devoting a part of his scanty pecuniary resources to the purchase of assignats, (the depreciated paper currency of the first French Revolution;) in a word, combining in one person the functions of engineer, architect, agriculturist, schoolmaster, physician, patriot, and priest, but rendering each and all of them subservient to the one great work which he had taken in hand; and like John Howard, though in a more eminent degree, and with far inferior resources,—for his income did not exceed 40*l.* a year,—introducing health, comfort, competence, and refinement among a population to whom they had been previously unknown.

But I must not allow even the good Pastor Oberlin to keep me longer from my subject. We must return to John Howard and the prisons of England.

Howard was appointed, as I have already stated, to the office of High-Sheriff of the county of Bedford in the year 1773, and he lost no time in making himself acquainted with the state of the prisons in the county towns. At that time there were three prisons in Bedford: the county gaol, the town gaol, and the county bridewell, characterised, in different degrees, by the then prevailing abuses,—exaction of fees, and neglect of the health and comfort of the inmates. Speaking of the first of these abuses, Howard says:—"The circumstance which excited me to activity in their behalf (that of the prisoners) was the seeing some who, by the verdict of juries, were declared *not guilty;* some on whom the Grand Jury did not find such an appearance of guilt as subjected them to trial, and some whose prosecutors did not appear against them, after having been confined for months, dragged back to gaol, and locked up again till they should pay *sundry fees* to the gaoler, the clerk of assize, &c. This, then, was one great abuse; the other related to the subject with which we are more immediately concerned, the health of the prisoners. It was after having visited most of the county gaols in England that his attention seems to have been more especially drawn to the state of health of the prisoners. He tells us, that, having seen in two or three of the county gaols some poor creatures whose aspect was singularly deplorable, and being informed that they had been brought from the *bridewells*, he set out on a new journey into the counties already visited, where he inspected not only the bridewells, but the houses of correction, and the city and town gaols. Some idea may be formed of the remarkable industry and perseverance which he displayed in these inspections from the fact, that, in the year following his appointment as high-sheriff, he had brought together a mass of materials illustrative of the two grand abuses to which I have referred, of such value, that, when presented to the House of Commons, they not only gave him a public vote of thanks, but, with rare promptitude, passed two acts—the one for the relief of prisoners who should be acquitted, respecting their fees; the other for preserving the health of prisoners, and preventing the gaol distemper.

What the state of prisons, in those points which most nearly affect the health of their inmates, was, three quarters of a century ago, I must tell you next time we meet.

ORIGINAL COMMUNICATIONS.

ON THE

MODE OF ORIGIN AND PROPAGATION OF THE EPIDEMIC CHOLERA, IN HUDDERSFIELD AND THE NEIGHBOURHOOD, IN THE AUTUMN OF 1848.

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(Continued from page 344.)

Having given a complete list of all the cases with which, after much inquiry, I have become acquainted, I am now prepared to examine them, in order to see whether they contain matter calculated to contribute anything towards the elucidation of the very important questions respecting the mode of origin and propagation of the cholera.

1.—CONTAGION.

I. *Origin of the Disease.*—The cases which I have given occurred in *thirty-seven* distinct places. In *thirty* of these places the disease did not arise from any known source of contagion. The following are the names of the places:—Colne Bride, Quay-street, Lowerhead-row, Union-row, Fenton-square, Stock's-buildings, Cliff-end, Lindley, Fartown, Paddock, Clough, near Paddock, Johnny Moore-hill, Brierley Mill, Thomas-street, Cross Church-street, Lane, Ash Brow, Dead Waters, Swallow-street, Rashcliffe, Hill-house, Old Post-office-yard, Cropper's-row, Dyke-end-lane, Old-street, Slaithwaite, Greenside, Milnsbridge, Lime-kilns, Crosland Moor.

If this statement requires any modification it is in respect

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to Quay-street, (Case 4,) Lindley, (Case 10,) and Cropper's-row, (Case 64.)

In the remaining *seven* places, the disease showed itself in persons coming from an infected district. In only *one* of the seven places did more than one case of cholera occur, (viz., Castle-gate,) and in this instance there was no known communication between the first patient and the one or two subsequent ones. The disease does not seem to have spread, therefore, in a single instance. It is probable that in each of these seven instances the patient acquired the disease in an infected locality, and moved to the place in which the disease broke out during the period of incubation. The following are the names of the seven places:—Vagrant Office, Huddersfield; Bradley Mills, Mold Green, Castle-gate, South-parade, Meltham, Huddersfield Prison.

The disease broke out nearly at the same time in distinct points, at considerable distances from each other, and under circumstances which make it appear in the highest degree improbable that it could have been conveyed from one place to another.

From these facts it seems fair to conclude that the cholera did not arise by contagion in any, perhaps, of the thirty places first mentioned; and that it is impossible to suppose that it could have sprung from contagion in all the thirty places.

II. *Propagation of the Cholera.*—1.—We have just seen that, in seven places, the first persons attacked had come from an infected district, yet the disease did not spread in any one of these instances. At page 341 the particulars have been given of the removal of a family under circumstances highly favouring the spread of a contagious disease, yet without any such effect having followed.

2.—In fifteen out of the thirty-seven places in which the cholera was observed, more cases than one occurred in each place.

In two of these fifteen places (Lindley and Dead Waters) all the cases occurred in the same house. In these places, therefore, it is difficult to judge whether the disease was propagated by contagion, or whether all the cases arose from the same source.

In the thirteen remaining places the cases occurred in more houses than one. Under what circumstances did the disease occur in a second or a third house, after it had appeared in the first one, in these thirteen places?

In two of them it may be regarded as certain that there was no communication between the houses first and those afterwards affected. (Paddock and Slaithwaite.)

In nine of them there was very probably no communication. (Quay-street, Union-street-lane, Swallow-street, Thomas-street, Castle-gate, Rashcliffe, Clough, Cropper's-row (?))

In two of them there was communication between some houses, and none, probably, between others. (Cliff-end, Johnny Moore-hill.) (a)

In two cases (Nos. 63 and 54) the disease was undoubtedly contracted by visiting an infected place. But whether it was acquired by contagion, or by exposure to certain local influences, independently of contagion, it is not easy to determine. Another case, (Mrs. Brooke's, described at page 341,) in which a person, having left her home at Johnny Moore-hill, for fear of cholera, returned to it after a time, and was taken ill before holding any communication with her neighbours, would point to the inference, that the disease was acquired from the place rather than from the people. But there is room for doubt whether the illness in this case was an effect of the choleraic poison.(a)

Thus, a careful analysis of the cases leads me to the conclusion that in some of them the disease *certainly* was not propagated by contagion, and that it *probably* was not in most of them. In others, again, it *may* have been, and in a few it is not improbable (although it is by no means certain) that it was propagated by contagion.

If cholera were propagated exclusively by contagion, the poison must be the most virulent, and the most certain in its operation of any of the contagious poisons known to us. Small-pox, measles, and scarlet fever, of all contagious febrile diseases, are perhaps those which are the most certain to be communicated to exposed persons who have not already suffered from them. But these diseases are never observed to spread with a rapidity which admits of an instant's comparison with that of cholera. In the case of cholera, one house is affected to-day, two or three others, near or distant, to-morrow, and as many more each succeeding day, until a whole neighbourhood has been devastated within a period of time that would barely suffice for the propagation of any other contagious fever from one patient to half a dozen more. If the contagion of cholera were so virulent as this opinion supposes, comparatively few persons visiting an infected district could hope to escape the disease; and persons removing from an infected place would *generally* become the centres of a fresh circle of cases, whereas, in this district, the disease never spread from such persons. Washerwomen, and those employed in attending to the dead, would almost always suffer; yet, in the few cases in which I have had the opportunity of inquiring, these persons do not appear to have suffered at all, except when they were at the same time exposed to the other supposed causes of the disease.

Again, diarrhœa accompanied the cholera in such a manner as to lead almost inevitably to the conclusion, that both diseases depended upon the operation of the same poison. In one class of persons, and under one class of circumstances, diarrhœa resulted; in another class, or under other circumstances, cholera. Diarrhœa began to be epidemic a little before, and ceased to be so a little after the cholera. It prevailed to an extent to which, I believe, it is never observed to prevail, except when in conjunction with cholera. Both diseases visited the same places to a great extent. In

(a) Having enumerated the places in the text, any one may verify the facts by a reference to the details previously given. To save trouble to the reader, however, I here subjoin briefly the particulars of a few of the most important places.

Cliff-end.—Five cases in all. 1st case, Sept. 4th. 2nd case, in another house, Sept. 13th; no known communication. 3rd case, Sept. 15th, child of the first patient; attacked after removal to a distance. 4th case, husband of second patient. 5th case, son of the last patient, Oct. 2nd. There was communication between Nos. 2, 4, and 5. If the last got the disease from either of the others, the period of incubation could not have been less than sixteen days.

Thomas-street.—Two cases. 1st, Sept. 7th. 2nd, Sept. 25th. No known communication, and also an interval of three weeks between the two.

Cropper's-row.—Four cases. 1st, Sept. 29th. 2nd, husband of No. 1, Sept. 30. 3rd, son of Nos. 1 and 2, Oct. 1st. 4th, Oct. 1st; this patient once stood for a very short time in the door of the residence of the others, but did not enter. There *may* have been contagion; if so, it must have been very virulent.

Slaithwaite.—Seven cases. 1st house.—1st case, Oct. 1st; 2nd case, Oct. 4th. 2nd house.—3rd case, Oct. 4th; no communication with 1 and 2. 3rd house.—4th case, Oct. 7th; 5th, 6th, and 7th cases, Oct. 10th. The inmates of the 3rd house had no communication with the two other houses.

Clough.—1st house.—1st case, Sept. 6th. 2nd house.—2nd case, Sept. 17th, four or five houses from 1st; probably no communication, patient aged 78; 3rd case, grand-daughter of second patient. 3rd house.—4th case, Sept. 22nd; cannot say whether any communication, patient aged two years. 4th house.—5th case, Sept. 22nd, aged one year; 6th case, aged four years, Sept. 23; communication possible.

Johnny Moore-hill.—1st house.—1st and 2nd cases, Sept. 19th; 3rd, Sept. 22nd, husband of No. 1; 4th, daughter of Nos. 1 and 3, Sept. 25th. Nos. 3 and 4 *might* be from contagion.

2nd house.—1st case, in night between Sept. 19th and 20th; too soon to have sprung by contagion from first house, even if any communication, which is improbable. Two other houses are interposed between first and second houses.

3rd house.—1st case, in night between Sept. 20th and 21st; daughter-in-law of first patient in first house. Lived in a different row of houses, by nursed mother-in-law. If by contagion, only twenty-four hours incubation. 2nd case, Sept. 27th; began with cholera, but with diarrhœa sooner. Husband of last patient.

The two first cases in house 1, and the case in house 2, if not also the first case in house 3, probably all arose from one cause, and not from each other. The last is the only one of them in which contagion seems *possible*.

4th house.—1st case, evening of Sept. 21st; the patient worked a mile off home, and had diarrhœa when at work during the day; lived in a different row from house 1. Had no communication. Began same day as first patient in house 3. No communication.

2nd and 3rd cases, in night between 22nd and 23rd Sept.; the father and mother of No. 1. 4th case, Sept. 25th, another son. The three last *may* have been from contagion.

5th house.—Near to 2nd house. 1st case, a child, Sept 21, (diarrhœa only?) Probably no communication.

6th house.—1st case, Sept. 22nd; denied any communication with preceding. This house is in Lower-row, seven doors from house 1, Lower-row, next house to No. 2.

7th house.—1st case, Sept. 22nd; *probably* no communication, but not *certain*.

8th house.—Next to last. 1st case, Sept. 23rd; can't say whether had any communication with house 6; had not with others. If contagion, period of incubation could not exceed twenty-four hours.

9th house.—Lower-row, next to house 5. 1st case, Sept. 24th, diarrhœa, (and on 15th October became cholera?) might have and probably had communication with house 5.

10th house.—Next to No. 1. 1st case, Sept. 24th; one or two had diarrhœa. A child removed, and died elsewhere of cholera. Might have had communication with house 1.

(a) Since the above remarks were written, I have seen the "Report of the General Board of Health on the Epidemic Cholera of 1848 and 1849." At page 34 cases are referred to which strongly support the opinion that the disease, caught by visiting an infected place, was taken from the place rather than from the *patients*.

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some houses, villages, and towns, one of these diseases; in others both, occurred. But very few places altogether escaped both. (See the account of Cliff-end and Lindley, p. 257.) Within a few days after the appearance of the epidemic in a neighbourhood, it often happened that a great majority of the houses had been visited either by diarrhœa or by cholera. It is not possible to suppose that diarrhœa, when observed under such circumstances, could be propagated to any material extent by contagion; and, if this statement be true of the diarrhœa, it can scarcely be less true of the cholera. (a)

2.—ENDEMIC INFLUENCES.

Having arrived at the conclusion, that the epidemic cholera neither arose nor was propagated, exclusively, nor even to a very material extent, by contagion, I proceed now to inquire what influence was exercised in the production of the disease by causes of a local character.

In *all* the cases in which I have had an opportunity of making the inquiry, (and that is in nearly all of them,) some of the local causes, whose influence is now generally recognised, were found to exist. Many of the places in which the cholera broke out, and all those in which it prevailed to any extent, were previously well known for their unhealthiness, and have been noted for their liability to fever and other epidemic diseases. The following circumstances, either singly or in various combinations, are those which have been chiefly remarked in the places visited by the epidemic:—

1. The accumulation of filth of various kinds, foul privies, bad drains, or the absence of drains, and want of personal cleanliness.

The good effects of cleanliness are strikingly exhibited by the fact, that only one house at Johnny Moore-hill was free from both diarrhœa and cholera, and that the occupants of that house were distinguished from their neighbours by their superior cleanliness. (See p. 342.)

2. Overcrowded dwellings and bad ventilation. The bad effects of these circumstances were especially seen at Johnny Moore-hill, where they were observed in almost every house, and where the disease prevailed most in the most crowded houses. (See p. 342.) The good effects of removing from such places are noticed at p. 342.

3. A number of the cases occurred in low situations, and near to a river or canal. (See Cases 5, 25, 82, 83, 86, 87, 88, 89, 91.)

The disease broke out in a very severe form, but did not prevail extensively, in several elevated and very airy situations, (Cliff-end, Lindley, Clough, near Paddock, and even Johnny Moore-hill.) In all these instances, the ordinary local causes were present in a high degree, and seem to have operated injuriously, in spite of the beneficial influence of an otherwise pure air.

4. There were abundant materials for the production of malaria in several places, *e. g.*, the old fish-pond near to Paddock and Cliff-end; also at Dead Waters, a marshy locality, as the name indicates. It has been stated (p. 341) that, before the cholera appeared at Johnny Moore-hill, the wind blew from the fish-pond towards the dwellings. After this time the wind was generally easterly, and it is possible this circumstance may have had something to do with the immunity of the general village of Paddock, and with the spread of the disease to several places west of Paddock, as Milnsbridge and Slaithwaite.

5. The condition of the water was inquired into in most places. There was no reason to suppose that it was contaminated in any instance, unless in the case of two families, who had used the water in the old fish-pond in July and August. (See p. 341.)

The influence of the local causes just enumerated appears to have been increased by the personal state or habits of various individuals. Such are—

1. *Intemperate Habits.*—These are noticed in several cases, and certainly existed in many more.

2. One patient was attacked soon after eating cucumbers and fat meat. (Case 2, p. 256.)

3. *Previous Liability to Diarrhœa.*—In Cases 10 and 41 this is mentioned. In one instance, however, an individual subject to diarrhœa, and exposed to the cholera, escaped all further illness. (P. 258, remarks on Case 76.)

In one case the disease came on after purgative medicine had been taken, the patient being exposed at the same time to all the other causes of cholera. (Case 16.)

4. Fatigue, poor food, and exposure to cold and wet, seem to have exercised considerable influence in Case 1.

5. Great fear of the cholera preceded its appearance in several cases. (10 and 11.)

6. *Adult age* appears to have been a predisposing cause. (See p. 342.)

Thus, in this neighbourhood the disease visited those places only in which one or more of the local influences just referred to were to be found. The same statement, with comparatively few exceptions, is equally applicable to the country at large. We are forced, therefore, to the conclusion, that these local influences are intimately connected with, and that in most, although not in all cases, they may even be said to be necessary to, the development of the disease.

In this fact is probably to be found the explanation of another, viz., that the villages near the town were more severely visited by cholera than the town of Huddersfield itself. The hygienic condition of many of the villages is worse than that of the town. In the epidemic of 1832 not more than one or two cases of cholera occurred in Huddersfield; and I have not heard that any more were seen in the neighbourhood. A large part of the town stands upon a gentle declivity. Its position offers natural facilities for drainage; and the elevation and the arrangement of the streets render it more likely to be well ventilated by the frequently high winds than are many other towns. In 1832 active preventive measures were very generally adopted, under the apprehension of a visit from the epidemic; and these, no doubt, contributed largely to the immunity which the district at that time enjoyed. Since then the rapid increase in the population has led to a multiplication of local nuisances; and the usual consequences of these would probably have been experienced in a more severe visitation from the last epidemic, had it not been for the efforts of the Commissioners not long before appointed under a new improvement Act. These gentlemen, with an enlightened appreciation of their duties, and in the face of opposition raised on account of the expense, caused many of the worst nuisances to be removed long before the cholera came among us. The jurisdiction of the Commissioners does not extend to those smaller places which were most severely visited, and which, instead of the moderate outlay occasioned by sanitary improvements, have now to bear the far heavier and more permanent expense of maintaining the widows and orphans of those who have been prematurely cut off.

One of the most remarkable singularities of the epidemic cholera is this: that after attacking one, two, or three persons in a bad locality, it will cease there. Again, it will altogether pass by other neighbouring spots, as bad or worse than the one visited. One house will be invaded, whilst others much nearer to the nuisance, supposed to be concerned in the production of the disease, will escape. (See remarks on the cases at Lindley, at Fountain-street, and at Cliff-end.) Upon any hypothesis respecting the origin of cholera, I can only suggest one explanation of these facts, viz., that of a number of persons exposed in an infected place, some are but little or not at all susceptible of the disease; some are exposed to the poison during a shorter period of time, or in a greater state of dilution; others escape it altogether, from changes in the wind, &c.; and the rest are attacked, some with cholera, some with diarrhœa or dysentery, and others with cramps, pains in the bowels, indigestion, and other forms of indisposition.

3.—ATMOSPHERIC PECULIARITIES.

But will air, rendered impure by emanations from filth and foul drains, and by want of ventilation, of itself explain the origin and propagation of cholera? I believe it will not; for all these sources of impurity have existed all over the country, and in a greater degree than they now do, for years before the epidemic cholera appeared. If this cause were an adequate one, I do not see why the disease should not revisit us every year.

We are forced, then, I think, to adopt the hypothesis that, in addition to local nuisances, and probably also to contagion, there must be some peculiar condition of the atmosphere. That remarkable and unusual atmospheric phenomena of

(a) Abundant evidence will be found in the Report of the General Board of Health, already referred to, in support of the opinion, that the epidemic cholera and the diarrhœa, prevalent at the same time, were due to the action of the same poison. See p. 89 et seq.

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various kinds were observed in many places, is a matter of fact, and has been recorded in several publications upon the disease. The precise nature of these changes remains yet to be ascertained.

Upon this hypothesis we can explain most of the circumstances attending the origin and propagation of the cholera; its simultaneous eruption in separate and distant spots in the same neighbourhood; the escape of other individuals or places apparently equally exposed; the very rapid diffusion of the disease (like influenza) in the same town and over large districts, or even over a whole country; the occasional eruption of it in ships at sea, and also its progress from one country to other and distant countries. When the poisoned atmosphere passes over a town or village, it operates principally upon those who inhabit the worst places, either because its noxious effects are increased by the local atmospheric impurities, (which is probably the principal reason,) or because the persons who inhabit such places, from being less favourably situated in respect to food, clothing, habits, and mental condition, are more liable than others to suffer from any cause of disease applied to them.

The facts I have stated render it impossible for me to believe that cholera was *commonly* propagated by contagion in this district; but I by no means deny, as I have already intimated, that it may have been so propagated in some instances. Many cases, moreover, have been published, upon the authority of trustworthy observers in other places, which seem to prove the contagiousness of the disease. There seems to be nothing to forbid the supposition, that a disease which arose from local impurities or from atmospheric influences may afterwards spread by contagion. Typhus, small-pox, measles, &c., must, in the first instance, have arisen without contagion, yet it is certain they are now propagated by contagion. Why may not the causes which *first* produced these diseases, frequently *reproduce* them now? Is it not probable, in fact, that they do? If so may not the same thing occur in the case of cholera? I will only add, in conclusion, that I have collected the *facts* I have recorded with much care, and have endeavoured to reason upon them without any bias. Before I analyzed these facts, I had never formed, nor ever expressed, any opinion respecting the mode of origin and propagation of the cholera. The opinion I have now formed and expressed has been suggested to me solely by my own personal inquiries.

Period of Incubation.—When the cholera has been acquired in a particular place, whether through contagion or through other local influences, it is desirable, when possible, to determine the period of incubation of the poison. In most of my cases it is not possible do this, because the patients lived amongst, and so had been long exposed to, the nuisances which probably had a share in producing the disease. Three cases, however, afford more precise information upon this point. In Case 37 the disease broke out within three days of the time when the patient first visited the spot at which he must have imbibed the poison. In Case 36 the disease broke out in about three and a half days, or eighty-four hours, after the first exposure. In Case 21 the patient, a child, left an infected place, and was not attacked until ten or eleven days after, having removed to a spot where there was no other case of cholera either before or after.

Treatment, Mortality, &c.—There is nothing deserving of remark in the treatment of the cholera at Huddersfield. Various plans were tried by various practitioners, but the cases were too few in number to admit of any plan being tested upon a large scale. The mortality did not differ materially from that observed in many other places. The deaths were 39, the recoveries 54. These numbers are given only because a widely different account has been published.

The treatment of the premonitory diarrhœa was very generally successful; and, by adopting the plan of house-to-house visitation, many such cases were discovered and stopped, and no doubt many lives were saved.

My experience of the last epidemic would lead me, in the event of another such visitation, to urge the great importance of house-to-house visitation, with a view to the discovery and treatment of all cases in the early and still manageable stages; the removal of the healthy from infected and over-crowded houses to places of refuge in proper situations; the clearing away of all nuisances; lime-washing the houses, and other similar measures.

The most beneficial measures, however, are those sanitary improvements which can only be carried out at leisure, and when no epidemic is pressing upon us. By these means, no doubt the cholera, and also many other diseases, might be, to a great extent, prevented, and much suffering and many lives might be spared. The want of proper persons, possessing the requisite authority to undertake this duty, in some cases, and a mistaken view of the expense in others, have hitherto prevented it from being discharged in a manner adequate to meet existing evils. The great fact, established upon most ample evidence, that it costs very much less to remove nuisances, and thereby to prevent disease, than to maintain the families of disabled men, and to make provision for their widows and orphans, is not yet sufficiently known to, or is not properly appreciated by, the local authorities of most towns and villages. The result is that, in this district as elsewhere, if cholera returned to-morrow, it would find us unprepared to stay its progress. The places that were cleansed have generally relapsed into their former filthy condition, and would afford all the facilities for the development and spread of the disease which they unhappily supplied during the last epidemic. It is to be hoped, that the Huddersfield Improvement Commissioners, who have shown that they understand what is required of them, will not be prevented from doing it effectually within the limits of their jurisdiction, by any short-sighted outcry against the necessary expenditure.

Nearly the whole of the preceding report was written in December 1849, and January 1850. Since it was completed, the Report of the General Board of Health, already referred to, has been published. The results arrived at are the same in every important particular. The inquiries were totally unconnected with each other.

Huddersfield.

PRACTICAL REMARKS ON ASTHENIC PUERPERAL FEVER.

By T. W. GARLIKE, M.R.C.S.E, L.S.A.

I am fully sensible of the great difficulty which exists in offering any remarks which will be acceptable to my readers on a disease so obscure in its nature, and whose history has been so diligently inquired into as the one in question. At the same time, the doubts and difficulties which have presented themselves to my mind when deciding the line of practice proper to be pursued in those cases termed "puerperal fever," (and that, too, when the rules of treatment, according to our best authorities, were most clearly indicated,) have decided me in publishing these few practical remarks on the subject of fever associated with parturition.

The work of Dr. Fleetwood Churchill, published by the Sydenham Society is so ably done, and so comprehensive on the subject of puerperal fever, that I refer all who are unacquainted with the history of this disease to its pages. I have no desire to encumber the columns of this journal with the results of other men's inquiries. The only recent paper which demands notice is Dr. Gambgnni's Monograph; yet, even in this I can discover nothing new: he has given us his judgment on the phenomena observed by other people. His remarks on the changes of the blood, (before noticed by Dr. Copland,) (a) must be received with caution; and his experiments require further investigation, since they are somewhat at variance with our great authority, Simon; (b) indeed, as the effect of venesection is to diminish the blood corpuscles, we must be satisfied as to the source from which the examined blood has been derived before yielding assent to conclusions of this kind. With obscure physiology, however, I have nothing to do, being content to give my readers the result of my own personal observations, extended over a period of eleven years, in a neighbourhood which, from situation and circumstances, is highly friendly to the development of asthenic forms of disease.

The termination of the year 1847, and the commencement of 1848, gave me an opportunity of becoming practically acquainted with the peculiar symptoms which appear after parturition, and to which nosologists have applied the term "puerperal fever." Since then, scattered cases of a mixed

(a) Dic. Prac Med., Part XIII.
(b) Simon's Chemistry, Vol. I., p. 282.

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character, have from time to time presented themselves in my practice, tending to confirm in the opinion, that this fever in the majority of cases, in some localities, is not altogether dependent on inflammation of the pelvic viscera, and hence have shaken considerably my confidence in bleeding and the accompanying depressing line of treatment. On this point all will agree with me, that any symptoms associated with disturbed functions after parturition are calculated to alarm, but that this is often greatly increased by the misappropriate term which nosologists have given to these symptoms must also be admitted. In forming a clear and accurate diagnosis in these as in all other cases, the mind must be especially free from prejudice, and unfettered by rules and dogmas which would in any degree tend to mislead us in our practice; but, unfortunately,—and I speak from experience—the giving names to symptoms is too apt to involve us in a belief in the treatment and opinions of others as applicable, under all circumstances, whereas, not unfrequently our own judgment would show that peculiarities of constitution, locality, state of health of the neighbourhood at the time, and condition of the patient prior to delivery, are all points of vital import, and not to be lost sight of.

As soon as the term "puerperal fever" is deemed applicable to the case under treatment, the mind is instantly alive to the inflammatory condition of the patient, and the pulse is counted with the most accurate precision, this being the most important feature on which writers have dwelt, to decide the propriety of carrying out the antiphlogistic treatment. As I have said already, it is not my purpose to make long quotations; there is so great a similarity in the views of authors on this subject, that I shall confine myself to one, for the sake of brevity; and as I know of none who has written with greater minuteness of expression than Dr. Blundell, I will make a short extract from his work on the subject. Dr. Blundell, in describing the worst forms of puerperal fever, says, "that an excellent characteristic is the pulse, which is always frequent, seldom below 110, generally ranging from 130 to 160; with this condition of circulation, (which is generally to be found within 24 hours after the first chill,) he recommends bleeding to the extent of 25 or 30 ounces, and he cautions the operator against being intimidated by the patient being faint, which frequently occurs after taking a few ounces of blood. This first bleeding will generally (he states) reduce the pulse to 120. If, however, at the expiration of six or seven hours, the pulse should have mounted to 130, 140, or 150 in the minute, depletion should be repeated. Again, should the pulse after a second bleeding, within another six or eight hours, number 130, 140, or 150, no collapse being present, and provided the quantity of blood already taken be within fifty ounces, you may repeat the bleeding." In addition to bleeding, Dr. Blundell recommends calomel and opium as important remedies; opium he describes as most efficacious when given in large doses, as it then reduces the irritability of the vascular system, and assists in extinguishing inflammation.

To receive these views of treatment as correct, we must indeed look upon puerperal fever as an inflammatory disease of the most inveterate kind, and such may be the case occasionally, where there is much plethora of constitution, and the locality healthy; for such forms of disease I am not contending, I confine myself to what is called puerperal fever in its asthenic character. To enter minutely into what is the condition of the uterus and its appendages, including as a part of it the peritoneal covering in puerperal fever, is not exactly the object of this paper; for pathology, as carried out at the hands of Bailie, Gooch, and a host of others, has already proved that morbid anatomy cannot clear up, in many instances, the cause of death to those sad victims of this disease; many have been the instances when the suspected metritis or peritonitis was never brought to light by the autopsia, and many the cases quoted where not a trace of inflammation could be found to justify the antiphlogistic treatment which had been adopted; and in many in which the inflammation was looked upon as satisfactorily made out, there has only been described a small quantity of pus, either in the cavity of the uterus, or infiltrated into the substance of the organ. Perhaps I may be indulging too much in hypothesis, but may not the muscular walls of the uterus, like the same tissue in any other part of the body under depressed vital power, when injured, put on a suppurative condition; may not the want of power to produce vigorous contraction and lymph to seal the orifice of the uterine arteries, induce oozing of blood between its fibres, and lead to some peculiar decomposition of its structure? I have repeatedly seen a sanguine purulent discharge from the uterus after a labour where low fever has been present. Again, do not patients who die of this disease in its worst form, where such active antiphlogistic treatment is pursued,—do they not die much within the time usually required for pure inflammation to work its fatal results? When we contrast the rapidity of this disease with the usual duration of inflammation in more important organs, such as the brain, &c., there appears great discrepancy. Morbid anatomy having then clearly shown that the products and appearances of inflammation are often absent, we must yet search for some other more rational explanation of puerperal fever. Is, then, puerperal fever a specific disease? Varieties of opinions exist on this head; to me it would appear decidedly not; I am as sceptical on this point as I am on its invariably inflammatory nature. Every one is aware that parturient women are always more susceptible of fever than others, or than they themselves are on other occasions, and that the tendency with them is towards rapid typhus; this has especially struck me when the atmosphere has been depressing and the neighbourhood unhealthy. Puerperal fever then has ever presented itself to me as a low form of synochus rapidly running into typhus, dependent apparently on asthenia of the nervous and vascular system, and produced epidemically by some mysterious condition of atmosphere. If closely pressed, the patient will invariably admit the want of nervous energy for some time previous to delivery, which has generally been accompanied with vitiated secretions, flatulence, heartburn, constipation. These symptoms of themselves, if neglected, without any other exciting cause, are enough to form the nucleus of fever; but, when we add to this the great nervous depression which follows a lingering labour, we are not surprised at the consequences. That occasional sporadic cases of a purely inflammatory kind do sometimes occur which require antiphlogistic treatment is certain; but it appears to me incorrect to view puerperal fever in this light generally. While doubting the propriety of bleeding and the too liberal use of mercury in the treatment of this disease, it naturally suggests itself to me, on what grounds we anticipate inflammation of the uterus and peritoneum after delivery. In the first place, child-bearing is a natural process; and the immense preponderance of cases which do well (many without any assistance whatever) clearly proves that this process is the carrying out one of the great laws of a Divine Providence, and therefore is wisely guarded. Granted that organs concerned in this action have undergone certain lesions, which if provoked by accident or otherwise would produce the most fatal consequences; but this is not the case; we have no grounds for supposing that the injuries inflicted upon the uterus and its appendages during natural parturition are calculated to induce inflammation,—this would be to rob Nature of the meed to which she is so justly entitled.

Perhaps, somewhat in opposition to the general opinion, I am disposed to look upon the uterus as an organ not very susceptible of inflammation, notwithstanding the lengthened discussions which have taken place of late on the subject of inflammation and ulceration of this organ; and to substantiate this I can adduce a variety of proof.

In the first place, the uterus is an organ whose functions by nature are intended to be constantly excited; each monthly secretion brings about a congested condition of its mucous lining; but that no inflammation follows (with very few exceptions) is clear to every one; this, again, is the fulfilment of one of Nature's laws.

During eleven years' practice, including in it the parochial duties of a semi-manufacturing neighbourhood, composed of 6000 souls, inflammation of the uterus has been of very rare occurrence; the ordinary functional derangement of the organ in the form of amenorrhœa, menorrhagia, dysmenorrhœa, and leucorrhœa have come under my notice repeatedly, and yielded to the treatment usually resorted to in such cases. Dr. Bennett shows clearly that the uterus is neither very sensitive nor susceptible of inflammation when he describes cauterization of the cervix and os uteri with the caustic potass, as necessary in some instances.

From the preceding remarks, it will be seen that I feel strengthened in the belief that puerperal fever is not gene-

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rally an inflammatory disease, nor one to be treated by large bleeding, the exsanguine condition of the women who are the victims of it, the low state of vitality of the nervous system after the shock of childbirth, the exhaustion of the patient by a long and laborious labour, terminating with great expense to the arterial system, and the want of the necessaries of life about her, are enough to prohibit a case of inflammation; that something like disturbance to the harmony of health should follow such great prostration and suffering, it is only natural to expect; but, strange to say, in most cases the patient does well, unless the neighbourhood be unhealthy at the time, or the locality under any circumstances be friendly to fever.

In the years 1847 and 1848 this neighbourhood abounded in exceptions to this happy state of convalescence above described. Beset with fever of a typhoid type, it was not surprising that the midwifery of this neighbourhood should partake, as it assuredly did partake, of the surrounding epidemic. In bringing these remarks to a close I shall quote some few cases which occurred in my practice at that time, with the treatment which I resorted to.

All the cases that presented themselves occurred amongst the poor and badly fed of the population, and, as I before stated, bilious fever, running into typhus, was everywhere rife in this neighbourhood at the time. Before any case came under my notice, my attention was directed to the subject, from the circumstance that several fatal cases had occurred here amongst parturient women, some of which were attributed to this cause. Three cases came under my care at the same time, in November, 1847, all of which had been attended by midwives two or three days previously to my seeing them; the leading features were hot burning skin, tongue dry and covered with a thick white fur; pulse ranging from 130 to 140; intense pain in the abdomen, occurring at intervals; violent purging and tympany; pains creeping down the lower part of the spine and extending down the thighs; intolerance of light; flushed and anxious countenance; breathing short and distressed; occasional delirium; urine scanty and high coloured, and of high specific gravity; alvine secretions offensive and black, (in some the diarrhœa was most inveterate,) there was complete suppression of the lochia and lacteal secretions, these symptoms having been preceded by some chills and shivering.

Although the pulse and many other symptoms are such as would dictate the use of the lancet to many, to me, quite a different mode of treatment suggested itself. On minute inquiry into the several cases, two of them represented themselves as having suffered for some time previously to delivery, from the usual characteristics of hepatic derangement, such as constant pains between the shoulders, flatulence, constipation, and fever, with high coloured urine; indeed, I may say that in this locality we are never free from this form of epidemic, which is attributed to the relaxing effect of the atmosphere. The third case had suffered much from hæmorrhage after delivery. In attending to the state of pulse, for which authors lay down such imperative rules of treatment, I would now remark that, for some years past, I have noticed this symptom with much accuracy, and I find that it is by no means an uncommon occurrence to have the pulse 130 after a confinement, without a single symptom to create alarm being present; a pulse 110 is a common occurrence when the patient is going on in the most satisfactory manner; and when this rapid state of pulse shows itself with other features of fever, it puts on, to my thinking, more the characteristic of the hæmorrhagic pulse than that of inflammation; it is almost always an irritable feeble pulse, conveying to me the impression that the system had already lost too much. But to proceed to the treatment of these cases:—

My first object was to thoroughly evacuate the bowels of all offensive matter, and to relieve the portal circulation, and thus prevent a still larger absorption of bile into the system; and I have found the best mode of evacuating the bowels is by injecting a tablespoonful of castor-oil, with a similar quantity of turpentine. In one of these cases I ordered ten grains of calomel, with two grains of opium to be followed with a warm aperient draught and the injection. This had an excessive effect in dislodging alvine matter. I then ordered a simple saline with antimony, and a sixth of a grain of mophia in each dose, to be taken every six hours, and a pill containing two grains of grey powder and one grain of morphia at bedtime; in this case purging and opiates constituted the chief feature of my practice; after repeated purgings I was obliged still to have recourse to them again, and, after following on this principle for four days, a purge administered the fifth day, (in consequence of excessive abdominal pains,) brought away two large worms of the genus lumbricus teres. At this period of the disease a vesicular eruption, filled with sanguineo-purulent matter, showed itself all over the body, and the patient appeared to be sinking. I now had recourse to decoction of bark, nitric acid, and opium, with the most satisfactory result. The pulse, which had been generally 140 or 150, began to quiet down, the cerebral hallucinations began to vanish, and the case gradually returned to perfect health. The other cases were of much the same character, and experienced the same kind of treatment, with this exception, that where the nervous system was oppressed with the absorption of bile into the circulation, and the secreting glands unhealthy prior to delivery, then I resorted to the general rules applicable to the treatment of bilious fever, keeping before me the probability of the case becoming typhus. Opium in its narcotic doses is highly useful in this morbidly irritable condition of the nervous system, for I consider twelve hours' sleep to be worth twenty-four hours' treatment. The patient wakes refreshed, and the frequency of the pulsation at the wrist is generally reduced ten in number, but regains its rapidity as debility returns. To restore the secretions to a healthy standard, and to soothe the patient, appear to me imperatively called for in these cases. How many are the instances of women losing many pints of blood in a flooding after delivery! Such was the case in one of these instances; and to have bled her to the extent of fifty ounces more, (as described by Dr. Blundell,) must surely have robbed her of more than she ever possessed.

During the period I have alluded to I had eleven extremely severe cases of a puerperal character, and the circumstance of most of these cases having fever upon them at the time of their confinement, induced me to adopt a kind of preventive line of practice, by visiting all persons whom I knew to be in a pregnant state, and supplying them with a little alterative medicine. This certainly was productive of great good.

In many of these cases I used opium in grain doses every three hours, with a double dose at bedtime, on the principle which I am here advocating, that of supporting and soothing the exhausted nervous energy of the patient, instead of still further reducing the strength; a treatment, in fact, resembling that which is resorted to in delirium tremens, where we have so accurately displayed false symptoms of inflammation of the brain, dependent on loss of nervous power.

Rickmansworth, Herts.

PRACTICAL OBSERVATIONS ON DISEASE OF THE EAR; WITH RECORDS OF CASES TREATED AT ST. MARK'S HOSPITAL, DUBLIN.

By W. R. WILDE, F.R.C.S., &c.

(Continued from page 348.)

No. 3.—SUPPURATION OF POST-AURAL GLAND.

January, 1850.—A. H., 19, a grocer's shopman, residing in one of the back streets in an unhealthy part of the city, applied for advice on account of a tumour which existed behind the *right ear*, and somewhat below the mastoid process. It was about the size of half an orange, oval in shape, hard to the touch, and of a purplish red hue, altogether very much resembling the character of a syphilitic bubo. It did not give the patient much uneasiness, and very little increase of pain was experienced on pressing it; he has not had any pain in the ear or the side of the head, and says he never had otorrhœa. The tympanal membrane is partially thickened and opaque; he hears the watch only when touching. The *left ear* is normal in function and appearance. Although this man states that he is in his usual health, sleeps well, and has his ordinary appetite, he is evidently an unhealthy subject; his face is pallid; his skin has a greasy aspect; the pulse is small, and the tongue is large, white, and its margin

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much indented by the teeth. He gives a very unsatisfactory account of his disease. What was the original cause it is now difficult to say, and the patient appears to be totally indifferent about his deafness. He says he never had syphilis, and bears no external mark of scrofula. We sometimes find a patient remarkably apt and intelligent in all the affairs of life who can give but a very meagre account of the history or symptoms of any disease under which he may labour; whereas other persons seem to be endowed with a special and often morbid taste for medical details,—so much so that they sometimes neglect their ordinary worldly concerns that they may be able to talk over their complaints to any one who will listen to them. The patient was directed to foment and poultice the tumour, to avoid exposure to cold, and take some aperient medicine.

This man did not return to the hospital until eight days had elapsed, as he says the lump gave him little or no inconvenience, and had opened two days ago. It now more than ever presents the characters belonging to a suppurating gland in the inguinal region. There is a large irregular opening, sufficient to admit the top of the forefinger; its edge is flabby, inverted, and of a deep purple hue. The interior of the cavity is smooth, polished, and of a deep red colour, totally devoid of granulations, and discharging a thin ichorous matter. He has no headache, does not sweat at night, but thinks his strength and appetite are not so good as usual. Simple dressing was applied to the sore, a table-spoonful of bark mixture was ordered to be taken three times a day, and the patient was recommended to remove some distance into the country. Under this treatment the man recovered perfectly in a fortnight.

Tumours behind the ear, and in any way connected with the mastoid region, demand the immediate and special attention of the practitioner. Without entering too minutely into the subject, I may specify five kinds of post-aural tumour with which I am familiar, and the situation and characters of which every surgeon should be acquainted with, as some of them may prove fatal in either the acute or chronic form. There is a small gland lying upon the mastoid process immediately above the insertion of the sterno-mastoid muscle, and on a level with the tube of the ear, which sometimes enlarges to the size of an almond; it becomes highly irritable and painful to the touch, so as occasionally to resemble a neuroma. It generally occurs in young females. I remember one such case which I attended some years ago along with Dr. Graves, and it was so painful that the lady could not bear to have it touched. The external application of iodine, and the internal exhibition of tonics, particularly iron, will in time remove these glands, but they are always very tedious. The second form of tumour is also glandular, and of this we have had an example in the patient whose case has just been considered. It is simply a suppurating gland, and is not unfrequently met with in young children during dentition. It generally appears in scrofulous constitutions, and very often in persons who have suffered from some inflammatory action in the middle ear or the external meatus. Such was the case in the instance before us, as we learn from an inspection of the tympanal membrane, as well as from the loss of hearing. I never saw one of these suppurating glands, the great bulk of which was not below the level of the external meatus, and this is a diagnostic of some importance, as a very formidable and often fatal swelling, which sometimes occurs behind the auricle, is always seated higher up. The treatment for this form of tumour is generally such as was practised in the case before us. The third form of tumour I have only seen upon two occasions; it is a chronic abscess, very similar to lumbar abscess, and is, like it, I believe, generally connected with diseased bone. I remember a little boy at the hospital, about three years ago, who laboured under this disease upon both sides, and of which the drawing I now show you is a faithful representation. Each tumour was about the size of half a hen-egg, fluctuating, painless, and occupying all the space behind the auricle; the skin nearly of the natural colour, but traversed by several blue veins. I opened these tumours, from each of which poured a quantity of the usual scrofulous curdy matter. Almost the entire of the surface of each mastoid process was denuded and rough. The abscesses filled several times; the child's health gave way, hectic ensued, and, missing it for some time from the institution, I made inquiry, and was told by the mother that it had "died of convulsions caused by water on the brain." The fourth form of tumour is the result of acute inflammation, either arising from periostitis of the post-aural, and often extending over the entire parietal region, or caused by accumulations of matter in connexion with disease of the mastoid process, the result of tympanitis spreading from the middle ear, or from chronic inflammation and otorrhœa producing caries, which extends into the mastoid cells; and with this external manifestation we sometimes have diseased action of a sudden and fatal nature going forward within the cranium, in the inner table of the skull, the membranes of, and even the brain itself. As this form of tumour shall demand our special attention upon a future occasion, when a case in which it is to be seen presents, I shall not now dwell further upon its symptoms or treatment, but would refer you to my Essay upon "The Affections of the Membrana Tympani," published in the *Dublin Quarterly Journal* for November, 1847, p. 425; and would here only remind you, that the sooner you make a free incision in such cases, not merely of the integuments, but through the periosteum down to the bone, the better. The fifth tumour which occurs in this region is a malignant fungus, of which I have seen three cases: one in a boy aged 10; the others in adults who had passed 50. Upon this rare description of tumour I shall make some observations on another occasion.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

GUY'S HOSPITAL.

By F. W. PAVY, Esq.
House Surgeon.

OIL OF MALE FERN, FOR THE EXPULSION OF TAPE-WORM.

In addition to the numerous diseases to which the frame of man is exposed, he is liable to become infested with parasitic animals,—living beings, inhabiting his various organs and tissues, and subsisting on his elaborated juices. These animals, although differing widely in their anatomical relations, have been grouped together into one class, denominated Entozoa; which, as the word implies, includes those living creatures having for their local habitation the interior parts of other animals. Of the entozoa met with in the human subject, some, as the various species of worm, inhabit the intestinal canal; others, as the hydatid, the different organs of the body, especially the brain and liver; whilst others again, as the trichina spiralis,—first discovered and described by Mr. Hilton, of this hospital,—are found only in the voluntary muscles. The tape-worm, the most gigantic and formidable in appearance of all the entozoa, resides in the intestinal canal, and consists of two distinct species: one, the tænia solium, or common tape-worm; the other, the bothriocephalus latus, or broad tape-worm. These not only differ considerably in their anatomical relations; but, what is remarkable, have a geographical distribution. Thus, the latter is met with in the bowels of the Swiss and Russians; and the former in the intestines of the English, Dutch, and Germans. In France both species occur; but not simultaneously in the same individual.

Tape-worm in this country is a very common affection, occurring more frequently in adults than in children, and giving rise sometimes to most obscure symptoms. The following are the particulars of a case which has recently occurred in this hospital, under the care of Dr. Hughes; and which is interesting, as having been treated successfully with the oleum filicis maris, or oil of male fern; a remedy which has lately obtained a considerable amount of repute as an anthelmintic for this description of worm, inasmuch as its innocent properties, combined with its effectual results, render it less dangerous and more preferable than the oil of turpentine, which is, however, in Dr. Hughes's opinion, if judiciously administered, an efficient remedy, and one which may be regarded as a true specific for this monster inhabitant of the intestinal canal; but whose other effects render it often productive of inconvenient if not even serious results.

Susannah Smith, aged 23, admitted into Guy's Hospital under the care of Dr. Hughes, Jan. 15th, 1851, a single young woman, of a spare frame, and somewhat emaciated appearance, residing at Camberwell, and occupied as a dressmaker. States that she had generally enjoyed good health

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until two years since, when she became the subject of great uneasiness,—amounting to pain, if she abstained from taking food for any length of time—in the epigastric region; frequent pains in the back, especially during the menstrual period; pains in the thighs, of a character simulating those from fatigue, or as though she had walked a long distance, and occasional swelling of the feet. The sensation of uneasiness in the epigastric region was seated principally to the left side; that is, in the position of the cardiac extremity of the stomach; and used frequently to ascend up through the chest to the throat. These symptoms remained persistent till six months ago, without her knowledge of their cause; but observed then, for the first time, fragments of tape-worm voided with her motions. From that time, until the present, has constantly passed portions of this parasite, altogether amounting, she says, to 150 yards. Has been gradually getting much thinner during the last two years; and has lately been subject to frequent headaches, apparently resulting from a disturbance of the digestive function. Appetite capricious, and is obliged to take food frequently, in order to allay the uneasiness she otherwise experiences in the epigastric region. Always feels worse on awaking from sleep in the morning than at any other time; after breakfast, however, she is completely relieved, and continues so for a few hours; when her symptoms again demand an ingestion of food. Fancies that she frequently feels the worm moving about in her abdomen; and says that she experiences an itching sensation around the anus, and a kind of irritation or itching about the nose. Her menstrual periods used formerly to recur every month; but lately, (about the last two years,) they have occurred at intervals of five, and sometimes even six weeks. Had not been under proper medical treatment previous to her admission; but, in obedience to the dictates of an old female sage, has, during the last six months, been constantly taking jalap and calomel, and turpentine and castor-oil, all to no beneficial result, however, as might have been anticipated; for the ol. terebinthinæ she took in no larger than ℥j. doses.

Jan. 16.—Olei filicis maris ʒiss., ex mistura mucilaginosa capiat cras mane et post horam olei ricini ℥i. Dr. Hughes at the same time directed that she should abstain from taking food from after dinner until she had taken the draught, in order that it might be administered on an empty stomach.

Jan. 17.—Bowels have been much purged this morning, and has passed a quantity of worm measuring eighteen feet. One extremity of the worm terminates abruptly at an ordinary articulation; the other tapers off gradually until it becomes very small and narrow; but here, also, there is an abrupt termination, from the division of the neck at one of the articulations. The head of the animal could not be discovered.

Jan. 18.—Bowels still purged, but has passed no more worm.

Jan. 20.—As she complained of the same symptoms and uneasiness which she experienced before, she has been ordered to repeat the oleum filicis maris, under precisely the same conditions as previously.

Jan. 21.—Took the second dose of the oil this morning, and has been much purged, but has passed no more worm. The only effects she experiences from the medicine are those of weakness and exhaustion, which result from the active purging.

Jan. 22.—Did not experience the same uneasiness at the stomach on awaking this morning as she has been accustomed to.

Jan. 23.—As her former symptoms of pain, &c., recurred again this morning, Dr. Hughes ordered a third dose of the medicine to be given.

Jan. 24.—Her bowels have again been copiously evacuated, without the least trace, however, of any worm.

Jan. 25.—Expresses herself as much better, and entirely free from any symptoms of uneasiness in the stomach.

Jan. 26.—Is altogether better, and complains of nothing to indicate the existence of a worm.

Jan. 28.—Considers herself quite well, for she is entirely free from those symptoms which she used to experience, and has passed no worm since that observed after the first dose of the oil.

Feb. 1.—Presented.

During the time this patient was under treatment in the hospital, a fat, rosy-faced, healthy-looking little girl, of six years of age, was admitted into Lydia ward, under the care of Dr. Barlow, having been infested with tænia since two years old.

On the first day of her admission she passed a few articulations of the worm, measuring altogether about seven inches. It being determined to try the oil of male fern, she was directed to fast from dinner-time, and to take a drachm of the oil in a mucilaginous draught the next morning, without any castor-oil. This produced no other effect than slightly acting on her bowels, and the child seemed as happy and as playful as on the previous day. She passed two motions, but in neither could any tape-worm be discovered.

A few days afterwards the dose was repeated, and this time followed by the administration of ʒiij. of castor-oil. Her bowels were freely purged; still, however, she passed no worm. A third dose was given, and attended with the same results; and, after remaining in the hospital about three weeks, she was discharged, as she did not complain of anything, and had not, as far as was observed, passed any worm since the first day of her admission. This case, although it does not support, yet does it not controvert the efficacy of this remedy for tape-worm; and it is especially interesting, as showing the effects and proving the innocent properties of the drug, and the safety with which it may be administered even to children.

Since the occurrence of these cases in the wards, three others have, to my knowledge, been treated, and treated effectively, as out-patients. One, a woman, had been affected with tænia for six months. She was sent to the hospital by a medical practitioner, residing a little way out of town, who had given her oil of turpentine, and a host of other remedies, but all to no avail, for they brought away but very small portions of the worm. She was treated with the oleum filicis maris, in precisely the same manner as Dr. Hughes's patient, the report of which I have given. The next time she presented herself at the hospital, she brought with her about thirty feet of worm, which, on examination, seemed to have the head attached to it. As she still laboured under the same symptoms of uneasiness she had previously experienced, a second dose was given to her, which, however, brought away no worm, neither has she passed any since, and is, to all appearances, quite relieved. The other two cases had also been treated unsuccessfully with various remedies, and in both the oil of male fern produced the evacuation of great lengths of the tænia, disconnected, however, with the head. The fact of the head not being present is no proof of the whole of the worm not being expelled; for the upper part of the neck is so slender, and so liable to get broken, that it is a rare circumstance than otherwise to find the head connected with the body. We therefore may pretty reasonably infer, that, in these cases, although the head was detached, the whole of the animal was expelled, especially as the patients had lost all their previous symptoms, and have not since made their re-appearance at the hospital. It not unfrequently happens, as in some of the cases which I have given, that the symptoms remain persistent some time after the expulsion of the worm, leading to the supposition, that this has not been entirely effected; but, after some days, they usually entirely subside.

In addition to the preceding cases, I may mention another, in which fifteen drops only of the oil produced the expulsion of more than twenty feet of worm, from a child of not more than 4 or 5 years of age; on examining it, part of the neck remained, but the head was not present. The little patient was a friend of one of the sisters of the hospital, who, having heard of the remedy, recommended it to be tried. I have not since been able to obtain any information of the case, but think that I should have done so had it not turned out successfully.

There is another remedy, of somewhat recent introduction, for tape-worm, which is considered equally as innocent and as efficacious as the oil of male fern. I refer to the kousso, or cusso,—a plant, the brayera anthelmintica, belonging to the natural order Rosaceæ, and obtained from Abyssinia. It is an infusion of the flowers that is used in medicine, and the natives collect these, dry them, and sell them in packets. Dr. Gull considers this the best and safest remedy for tænia; he administered it to a patient last summer, and produced the evacuation of four entire worms, measuring altogether 120 feet, its action being unaccompanied with any unpleasant effects. The great point to attend to, in ensuring the success of all anthelmintics for the expulsion of tape-worm, is to see that the remedy be administered on an empty stomach.

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MIDDLESEX HOSPITAL.

By S. W. SIBLEY, Esq.,

RUPTURE OF THE CHORDÆ TENDINEÆ OF THE MITRAL VALVE.

Charles M., aged 50 years, was admitted under the care of Dr. Thompson, on Jan. 28th; a man originally of muscular make, but now emaciated and feeble, appearing somewhat aged. At the time of his admission he was suffering much from dyspnœa. Countenance slightly dusky. There was anasarca to a slight extent, reaching as high as the knees; the abdomen swollen, but not affording fluctuation. A loud, rough, systolic bruit was heard over the entire præcordium, to the right of the sternum anteriorly, and on the left side of the chest posteriorly, most distinct however at the apex of the heart; there was also a murmur of rather different character heard over and in the course of the aorta. The urine highly coloured and scanty, but not containing albumen. Stated that he had an attack of rheumatism ten years ago; had been subject to palpitation of the heart for the last two months, and that the latter came on after he had been much troubled with private affairs. Had been subject to winter cough for many years, and to dyspnœa since six months. The lungs were examined, but nothing indicative of disease was discovered, beyond some bronchitic sounds. To have an expectorant and sedative draught.

On the 31st he complained that he had been seized in the night with an acute pain below the right mamma. Skin hot; pulse quickened, of considerable power; dyspnœa much increased. On examination of the chest, the ordinary physical signs of pneumonia in the first stage were found, affecting a large part of the lower lobe of the right lung. He was cupped over the scapula to ten ounces; the draught continued, and a pill containing two grains calomel and one-sixth of a grain of tartar emetic given every eight hours intermediate.

The next day, Feb. 1st, he had been much relieved by the cupping. Cough less troublesome; pulse 104, intermitting at irregular intervals. On the 3rd, the circulation more impeded; had been very restless in the night; at visit was irritable in manner, expressed great anxiety for sleep, having been accustomed to the use of opiates. The lower part of the right lung was still in a state of consolidation. He was put upon a draught containing squills, nitric, ether, and henbane, three times a day, with a powder composed of equal parts of hydrarg. cum cretâ and Dover's powder, at intermediate times; to have a blister to the chest, and an opiate at night.

On the 6th.—Yesterday afternoon was seized with a fit, attended with complete loss of sensibility, and with twitching of the extremities. On recovery from this state, which lasted but a short time, his mind was not clear; his manner vacant and abstracted. Deafness, which had existed from the 1st or 2nd day after admission, was much increased. Head shaved; a blister to the scalp. The next day, 7th, was better able to respond to questions; less deafness; some subsultus tendinum. From this condition he gradually sank till the 9th, when he died.

On examination twenty-eight hours after death, the convolutions of the brain were found to be somewhat flattened. Over the entire surface of the brain, both on and beneath the arachnoid, there was a considerable quantity of lymph, probably of chronic formation, with much vascularity of the tissue of the brain, both grey and white. There were some old adhesions on the left side of the chest; the left lung much congested; the right lung congested, with hepatization of the lower lobe in several places.

Heart much enlarged, the apex adherent to the reflected layer of the pericardium. The right cavities dilated with some hypertrophy of the wall of the ventricle; the tricuspid valve healthy; the segments of the valve of the pulmonary artery were somewhat thickened at the edges. There was also some dilatation of the left ventricle, with hypertrophy, the walls measuring three-quarters of an inch. The posterior segment of the mitral valve was sacculated, and projected from the side of the ventricle across the direction of the current of the blood. All the chordæ tendineæ attached to apex of posterior segment of the mitral valve were ruptured, so that there was a free edge of this segment, nearly an inch in length, to which no sound chordæ tendineæ were attached. There was considerable thickening of both divisions of the mitral valve, especially of the posterior. There were some vegetations on both halves of the mitral valve. The ruptured chordæ tendineæ were attached to the free edge of the valve, and were much thickened with lymph on their surfaces. Several of the chords adjacent to those ruptured, and some of those attached to the anterior half of the valve, were swollen, thickened, and softened near the middle point of their length. On the surface of the posterior papillary muscle, there was a swelling to which no chordæ tendineæ were attached. There were also one or two ruptured chords attached to the papillary muscle; one of these loose chords had become entangled amongst the chords near to it. The inner surface of the auricle was roughened with lymph; the aortic valve extensively calcified, with considerable atheromatous and calcareous disease of the aorta.

The great interest of the above case rests in the appearances discovered after death, of which indications were wanting during life; beyond this, the case is of interest, from the circumstance that the appearances referred to differ, in several essential particulars, from many of the cases on record. Previous to his death, there was little or nothing to point to the precise nature of the lesion in the valves. During life it was believed that the seeds of his complaint were probably sown at the time of the attack of rheumatism, ten years before his appearance at the hospital; that the results of this had remained in a quiescent state for several years; with his advancing age the tendency to chronic disease of the membranes of the heart and arteries became developed; and that, in consequence, calcareous deposit was thrown down in the products of the former inflammatory affection of the mitral and aortic valves. It was considered that this affection had been going on for some years, and that at last, when the patient's health was broken by mental and other causes, the effects first manifested themselves so as to be observed by the patient himself.

In most of the recorded cases of this lesion, as indeed in the original case of Corvisart, there has been a distinct and direct exciting cause, as a violent muscular effort, a fall, &c. But in the above case there appears to have been no such cause; on the contrary, it would seem, both from the history and the *post-mortem* appearances, that the chordæ tendineæ had been giving way one or two at a time, and that this action had been going on for some time previous to his death.

Again, in few, if in any of the recorded cases of rupture of the chords, does it appear that the lesion has involved such an extent of the valve, as we of course except the cases of rupture of papillary muscle at its base; and in these death appears to have speedily followed the accident.

Moreover, there is great interest in this case, from the fact that death occurred in the course of the disease, and therefore the mode in which the rupture took place may be studied. It is seen that several of the chords near those ruptured, and some of those attached to the anterior division of the valve, were affected with inflammation and degeneration of their tissue, especially about the middle point of their length, and that these points were swollen and soft, so that a small force, or a slight disturbance of the circulation, would cause rupture. Now, this contrasts remarkably with the case of Laennec, in which the chord next to that ruptured was thin and delicate, the rupture taking place at the valvular extremity of the chord; again, it contrasts with the case of Corvisart, in which the ruptured extremities were smooth and rounded.

That the disease had been going on for some time is clear, from the condition in which the posterior half of the mitral valve was found, namely, sacculated and bulged inwards towards the auricle, and this condition shows how inflammatory thickening of a valve may actually be a conservative process; for in this case, had the valve been quite healthy, the extremity must have been wafted backwards and forwards in the current of blood, just in the same way as when a papillary muscle is torn through, and in this case the effect on the circulation would of course be sooner felt, and death would have more quickly followed.

The Actonian Prize.—Mr. Wharton Jones has just had awarded to him the Actonian prize of one hundred guineas for the year 1851, by the Managers of the Royal Institution. This prize was founded by the late Mr. Acton, and is awarded once in seven years. It will be known to our readers, that Mr. Wharton Jones was the successful candidate for the Astley Cooper prize of three hundred guineas awarded last year.

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SCIENTIFIC LECTURES.

HUNTERIAN LECTURES ON COMPARATIVE OSTEOLOGY.

BY RICHARD OWEN, F.R.S.

Hunterian Professor to the College.

THIS AFTERNOON, APRIL 12.—Lectures XVIII. and XIX.—*Rodentia.* Their Numbers, Extensive Distribution, Feeble and Defenceless Character, and Great Fertility. Subdivided according to the Rooted or Rootless Character of their Molar Teeth, which govern the Nature of their Food. Their Osteology illustrated by the Skeletons of the Squirrel, Beaver, Cavy, Jerbor, and Hare. Modification of the Masseter Muscle and of the Mandibular Articulation in relation to the Gnawing Powers of the Order. *Insectivora.* Principal Forms and Osteological Characters of this Order illustrated by the Skeletons of the Hedgehog, the Shrew, and the Mole. Modifications of Trunk-Vertebræ in the Hedgehog, of the Cervical Vertebræ in the Mole. Feeble or Incomplete Zygomatic Arch; Clavicles constant in the Insectivora. Relations of the Sternum, Clavicles, and Massive Fore-limbs, of the Small and Open Pelvis, and Feeble Hind-limbs of the Mole to its Subterraneous Existence. High Antiquity of the Insectivorous Mammalia. *Cheiroptera.* The Characters of the Types of the Order show a Modification of the Insectivora for pursuing their Prey in the Air. Vertebræ of the Trunk. Skull: Smooth thin Cranium; Moveable and Inconstant Premaxillaries; Slender Zygomata. Carinated Sternum: Scapula and Large Coracoid: Powerful Clavicles: Ulnar Patella: Elongated Fingers. Open Pelvis. Bones of the Hind-limbs. Peculiarities of the Skeleton of Bats compared with that of other Mammals, of Birds, and of Pterodactyles.

TUESDAY, APRIL 15.—Lectures XX. and XXI.—*Carnivora.* The Families of this Order typified respectively by the Dog, the Civet, the Hyæna, the Cat, the Stoat, the Bear, and the Seal. Characters of the Cranium and Jaws: Vertebral Column: Centres of Motion indicated by Spinous Processes. Modifications of the Extremities in the Plantigrade Bear, the Digitigrade Dog and Lion, and the Pinnigrade Seal. Retractile Claws of the Felines. *Quadrumana.* General Characters and Primary Divisions of the Order, and their Geographical Limitations. Lemuridæ, Platyrhina, Catarhina. Vertebræ of the Trunk, of the Tail, of the Head. Progressive Expansion of the Cranium and Diminution of the Face as the Series Ascends, and the Reverse as the Individual Grows. Retention of the Immature Proportions in the Smaller Simiæ. Occipital and Lambdoidal Cristæ of the Great Baboons. Change of Position and Plane of Occipital Foramen: Expansion of Facial Angle. Complete and Parallel Orbits. Premaxillaries. Lower Jaw. Hyoid Bone: its Singular Expansion in the Howlers. Scapular Arch and Limbs. Pelvic Arch and Limbs: Semi-inversion of Tarsus. Carpal and Tarsal Bones compared. Antiquity of the Quadrumana. Concordance of Geographical Distribution of Extinct with Recent Forms.

THURSDAY, APRIL 17.—Lecture XXII.—Comparison of the Apes or Anthropoid Quadrumana with Man. Historical Sketch of the Knowledge acquired of the Genera Pithecus and Troglodytes, and of their Species. Skeletons of the Adults compared. Skulls of the Young contrasted with those of the Adult. Deciduous and Permanent Dentitions. Sexual Distinctions of the Teeth. Cranial and Dental Characters of the Great Chimpanzee (Troglodytes Gorilla). Its reported Habits and Ferocity. Its Skull and that of the Great Orang (Pithecus Wurmbii) compared with the Skull of the Negro. Characteristics of the Human Vertebral Column, Pelvis, Upper and Lower Extremities, and Dentition, illustrated by Comparison with those of the Orang and Chimpanzee. Osteological Characters of the Æthiopian, Mongolian, and Caucasian races of Man. Question of the Modifiability of Characters considered in respect of the Differences manifested in the Skeletons of the Anthropoid Apes and Man. Recent Introduction, and Inadequacy of the Transmutation-Hypothesis to account for the Origin, of the Human Species.

SATURDAY, APRIL 19.—Lectures XXIII. and XXIV.—Unity of Plan of the Vertebrate Skeleton demonstrated by a Retrospective Survey of the Characters of the Vertebræ in Fishes, Reptiles, Birds, and Mammals. The Archetype-Vertebra: its Autogenous Elements and Exogenous Processes. Extreme Modifications of the Type in the Atlas and Dentata: in the Sacrum: in the Carapace and in the Skull. Cranial Vertebræ. Nature of Limbs: their Special, Serial, and General Homologies. Conclusion.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Afternoon,	April 12.—	MEDICAL SOCIETY OF LONDON. *Subject*—DR. HENRY BENNETT, "On the Diagnosis of Inflammatory Disease of the Uterus, and on the Use of Potassa Fusa in their Treatment." Eight o'Clock.
		ROYAL BOTANIC SOCIETY. Quarter to Four o'Clock.
Monday,	April 14.—	GEOGRAPHICAL SOCIETY. Half-past Eight o'Clock.
		STATISTICAL SOCIETY OF LONDON. *Subject*: MR. R. THOMPSON, "Jopling on the Sanitary Statistics of the Metropolis." Eight o'Clock.
Tuesday,	April 15.—	LINNEAN SOCIETY OF LONDON. Eight o'Clock.
		PATHOLOGICAL SOCIETY. *Meeting of Council.* Seven o'Clock.
		HORTICULTURAL SOCIETY. Three o'Clock.
Wednesday,	April 16.—	ETHNOLOGICAL SOCIETY. Eight o'Clock.
		MICROSCOPICAL SOCIETY. Eight o'Clock.
Thursday,	April 17.—	HARVEIAN SOCIETY. Eight o'Clock.
Saturday,	April 19.—	MEDICAL SOCIETY OF LONDON. *Subject*:—DR. HUTCHINSON, "On the Symptoms of Phthisis." Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, APRIL 12.

THE IRISH CENSUS.

AMONG the most efficient agents for advancing the Science of Medicine, is the machinery set in motion by the Registrar-General. Those only who have been engaged in investigations into the etiology of disease can fully appreciate the influence the materials brought to light by its means must one day exert on the well-being of the race. In the modest volumes of "Reports" lie the facts by which problem after problem may be solved—problems on the solution of which how many lives depend!

The census in England is accomplished by the aid of district-registrars. The Registrar-General determines the form and nature of the questions to be put to each householder, and consequently, the kind and value of the information obtained.

In Ireland there is no general registration of deaths, &c., and therefore Mr. Donnelly and Mr. Wilde of Dublin have been named by the Government to constitute a Commission for the purpose of collecting the particulars needed to effect the census of that country. In the forms the Commissioners have issued are some questions, not propounded by the Registrar-General, but which are calculated to elicit facts of considerable importance to the science of medicine. We allude especially to Form C, and its necessary appendages—Form E, Hospital Form; and Form F, Workhouse Form; of the Irish Census Commissioners.

The object to be attained by Form C is an account of the name, age, and sex of all persons suffering from illness on the 30th of March, as well as the nature and duration of the diseases under which they labour. This is the first attempt to obtain an estimate of the amount, character, condition, and distribution of disease, as distinguished from mortality. We look on this as a most praiseworthy effort, and regret that a like form was not appended to the Householders' Form issued by the English Registrar-General. The broad distinction which exists between the amount of sickness in a community or district, and the mortality, is too evident to need illustration.

In order to compensate in some degree for the want of a general registration of deaths, the Irish Commissioners have issued another form, in which every head of a family will have to enter the members of his family who have died since June 6, 1841, the cause of death, and the date of death. By this means a much nearer approximation to the actual number of deaths that have taken place in Ireland during the last ten years will be obtained than has been hitherto practicable.

PROPOSED TESTIMONIAL TO DR. GRANT,

PROFESSOR OF COMPARATIVE ANATOMY IN UNIVERSITY COLLEGE.

THERE are men who devote their whole lives and mental energies to some abstract branch of science, not bearing immediately on the material interests of the community, although of great indirect importance to those interests; who get nothing for their pains but an eminent name, an European reputation, and comparative poverty. Such a man is Dr. Grant; an enthusiast in his particular walk of science, so devoted to it, that while others have amply profited by his labours in a pecuniary sense, he himself has been left almost without the means of sustaining life, much less of

occupying his proper position in society; and, what is still worse, of giving the results of his scientific labours to the world. In support of the latter part of this assertion, it must be remembered that publishers are not ready to risk the cost of paper, printing, and advertising, without a reasonable prospect of profit, and that many original Memoirs of great importance to the progress of science do not command so extensive a sale as to render them remunerative to the publisher. We are in a position to assert, that such has been the case with regard to several Memoirs of the eminent *savant* of whom we are now writing. The appointment which Dr. Grant has held for twenty-three years has been anything but a lucrative one. The income derived from it has, until within the last few months, depended entirely on the fees received from students; and as Comparative Anatomy is neither a popular subject, nor absolutely required by the curricula of the Colleges, his class has always been small and select, consisting only of men who love science for its own sake. These, it is well known, are the exceptions to the ordinary run of students. It has been remarked to us, that Dr. Grant might have done more than he has done; but the parties from whom such a remark emanated, must have forgotten how much he has done, and what small means he has had at his command.

One mode of placing the subject of this notice in a better position was unfortunately lost. The University of London professes to examine the candidates for its degrees in Comparative Anatomy, to which it has conjoined physiology. It further excludes its own graduates from the examinerships, on the pretence that the most eminent men in each department of science should occupy these positions; hoping and expecting, we suppose, that the borrowed light will be reflected on the Institution. The recent vacancy occasioned by the resignation of Dr. Roget, would have afforded an excellent opportunity of rewarding scientific merit of the highest order in the person of Dr. Grant, had the senate adhered to what appears to be its rule of action.

These circumstances have excited the desire among many of the admirers of the scientific merits of this great and worthy man, of presenting him with a testimonial of their esteem; and taking into consideration the limited and insufficient amount of his income, it has been proposed to present this testimonial in the form of a life annuity, as the most advantageous mode of disposing of the donations. A Committee is in process of formation, the present nucleus of which contains the names of many of the most eminent men of the metropolis, and without any appeal to the scientific public, more than seventy pounds has been subscribed. Among the donations is one of twenty guineas from a highly-gifted physiologist. This gives ground of hope and belief, that so good a cause will receive ample support, and that so useful a testimonial will prove worthy of science and scientific men.

When we reflect that Dr. Grant was the first to teach Comparative Anatomy in England; when his published lectures are compared with the previous works on Comparative Anatomy, which before his time was little known and less cared for in this country, while it was assiduously cultivated in France and Germany; when the numerous original papers in the Transactions of the Zoological and other Societies, which have made his name better known on the Continent than in his native country, are appreciated, how strong does his claim on our admiration become, and how spiritless shall we appear should this undertaking fail. We feel certain that all his old pupils will give their cheerful assistance, and exert the influence they may possess in furtherance of this object, and we shall feel ashamed of the scientific *esprit du corps* of England should it fail to be carried out.

REVIEW.

Practical Observations on the Treatment of Stricture of the Urethra and Fistula in Perineo. Illustrated with Cases and Drawings of these Affections; with an Appendix, containing various Letters, &c. By JOHN LIZARS, late Professor of Surgery to the Royal College of Surgeons, and Senior Operating Surgeon to the Royal Infirmary of Edinburgh. 1851.

A greater share of interest than usual attaches to this work, from the prominent part taken by Professor Lizars in the controversy respecting the propriety of adopting Mr. Syme's practice of making a long section through the perinæum in cases of stricture of the urethra. That such an operation is not free from danger is now proved: that it often affords permanent relief is somewhat questionable. There can be no doubt to any reasonable mind it never should be thougnt of if a moderate-sized catheter can be introduced into the bladder. It is now the fashion to found the treatment of stricture upon the supposition, that in *all cases* a catheter may be passed with patience and skill. The idea originated in Edinburgh, from an unlucky and hasty opinion expressed by the late Mr. Liston. "That truly great and eminent surgeon used to boast that he had never yet failed in inserting a catheter in stricture onward to the bladder." (Preface, p. 12.) Whether Professor Lizars regards this assertion as a boast, the context does not say; but we know that, with all Mr. Liston's dexterity, (and in such cases he was surpassed by none,) he *did* fail when practising in London; where, with a wider field of experience, he was exposed to the close observation of an active community and to the criticisms of an impartial Press. But we refer our readers to a letter which appeared in our Journal, (Nov. 9, 1850,) from Mr. William Cadge, the Assistant-Surgeon to University College Hospital, the scene of the late Mr. Liston's public operations. Mr. Cadge, the late pupil and the friend of Mr. Liston, wishing, as all should wish, to relieve the memory of his teacher from the imputation of vain-glory and presumption, explains perfectly clearly that such an opinion was never entertained by Mr. Liston in the latter years of his life, and that "*he was repeatedly foiled in the introduction of the catheter in ordinary stricture.*" We trust, therefore, to hear no more from any quarter of the non-existence of a perfectly impermeable stricture. The expression of such an opinion is an insult and an injustice to every one whose success has not been complete in following with the catheter every case of contorted and constricted urethra.

Are we to believe that "stricture of the urethra is, in the majority of cases, a sequence to long-continued gleet, or to frequent or maltreated attacks of gonorrhœa, and that it is also often produced by self-abuse?" Professor Lizars seems to entertain some doubt of the accuracy of this opinion, for, says he, "if those who have had gonorrhœa once in their lives and those afflicted with spermatorrhœa are predisposed to stricture, it would appear that the majority of mankind are liable to this disease."—(P. 1.) This statement, the result of many years' experience in the surgical diseases of the northern metropolis, should show that the boasted morality of the Scotch does not yet extend itself to sexual indulgences.

Professor Lizars points out the different forms of stricture, and condemns the introduction of the "resilient stricture," as a form different from that known as the spasmodic. "Stricture affects the urethra from the external meatus to the neck of the bladder; nor can any one say *with precision* which part of it is most subject to constriction." All, however, seem to agree that the diseased state of the urethra is most commonly observed in the region of the bulb and the anterior part of the membranous portion. It seems to us that any attempt to specify the seat of stricture more minutely has hitherto failed.

Professor Lizars describes the symptoms of stricture and the results; but we think that, with others, he has omitted to notice the curative powers of nature. It is a common opinion, entertained both by surgeons and patients, that a

stricture, once formed, requires the occasional introduction of the catheter for many years after its cure, perhaps for the rest of the patient's life. Now, surely it is not intended for us to hold, first, that the majority of those who suffer from gonorrhœa, gleet, and spermatorrhœa, are the subjects of stricture; and, secondly, that all strictures require surgical interference, and cannot get well without it. If such were the fact, a case of catheters would be a more appropriate present to a male infant than a silver knife, fork, and spoon, from a godfather at the time of its christening.

In the examination of the urethra Mr. Lizars recommends the introduction of No. 12. If this be too large, the surgeon should descend to No. 7, and then to No. 3, or, if necessary, No. 1. The insertion of so small a catheter as No. 1 should be performed about midday, as patients have remarked that it glides onwards more easily at that period than early in the morning. If, after a few trials, aided by the introduction of the finger into the anus, he still fails, he should abandon the attempt, and order a warm bath and a mixture of aqua potassæ, with hyoscyamus, say ʒii. of the former to ʒi. of the latter, mixed with lb. ij. of water, of which let a wine glassful be taken two or three times a day.

The catheter, when once introduced into the bladder, should be retained by a suitable bandage. The patient may possibly bear it for forty-eight hours, by which time the stricture will be so far removed by ulcerative absorption that the urine will flow by the sides of the instrument. The possibility of the catheter exciting severe constitutional disturbance is remarked, and Velpeau's cases of "death following such an affection" are briefly but pointedly alluded to.

Professor Lizars repeats an opinion formerly expressed, that a series of silver catheters constitutes the best surgical means for the treatment of permanent stricture. He objects to those formed of any other material, and does not approve of lancetted stilettes, &c. He relates a case in which a stricture was divided by a concealed blade, from within, by means of a properly constructed catheter introduced through the urethra; a large bougie was immediately afterwards passed with perfect ease, but next day things were in precisely the same state they had been in formerly. We have, however, seen cases in which Stafford's lancetted stilettes have, in skilful hands, effected much good, although it must be confessed that the instrument is a dangerous one, and may readily cut its way from the right course. Throughout Professor Lizar's work there may be traced the spirit of determined opposition, which he has ever shown to the perineal section, and posterity will have to thank him for arresting in its bud a practice painful of execution, of uncertain result, irreparable when once performed, and fraught with peril to the patient. We say to all who profess themselves surgeons, read the report of cases operated upon by Mr. Syme, published in Dr. Mullar's pamphlet forming an appendix to the work here reviewed.

What do these sixteen cases teach us?

Four were cured.

Six doubtful.

Two cases cured by *dilatation*.

Four wholly unfit for the active duties of life.

We repeat an opinion formerly expressed, that if this result be true, and Dr. Mullar challenges any one to deny its accuracy, we have a right to blame in no measured language those who would have misled their less experienced professional brethren. We saw but the other day a letter, announcing that its author, an army surgeon, was about to do the "perineal section upon Her Majesty's troops." We say to him, "Remember, soldiers are valuable; they cost money, and are likewise possessed of the same feelings as yourself." Read Dr. Mullar's report before you operate in the manner you propose.

Perhaps, amongst the common causes of stricture, should be enumerated the injury done to the lining of the urethra by frequent and ill-effected introductions of the catheter. A youth contracts gonorrhœa; a slight gleet remains; the mucous membrane of the urethra is allowed no time to recover itself. Copaiba, cubebs, injections of every kind, catheterism follow in quick succession, effecting the very evil that they were intended to avert. Time is required for the cure of disease, and powerful measures must be adopted, under proper supervision, and with all due care. Should a stricture form from any cause in the urethra, no perineal section should be dreamt of, if a moderate-sized catheter can by any means be introduced into the bladder. But, when a stricture is impermeable, the perinæum hardened and the seat of fistulæ, much good may be done by an operation, by no means new, namely, cutting through the altered tissues, inserting a catheter into the bladder, endeavouring to re-establish the urethral channel, and causing the parts to heal over a catheter retained *in situ* by a proper bandage.

FOREIGN CORRESPONDENCE.

FRANCE.

Your editorial remarks on the niggardly pension awarded by Government to the widow of the late Mr. Liston have found an echo in the bosom of every one who would have his country respected and due reward meted out to merit. The widow of the late Sir Charles Bell received a pension of similar amount only. When the most distinguished science is placed on the same level with Royal dancing-masters, we are surely entitled to exclaim, "There is something rotten in Denmark." How different this conduct of our rulers from that pursued here some weeks back, in the case of M. Ferée, late editor of the *Sibcle*. That honest and independent man, cut off suddenly by apoplexy, left his family in distress. The shareholders met at once, and voted 1200*l.* per annum to his wife, and 50*l.* per annum to each of his children. Though not immediately connected with medicine, I cannot help recording this fact, which demonstrates the respect paid to independent journalism in France.

And *apropos* of politics, we are soon to have a curious medico-political exhibition in the National Assembly, before which some philanthropic reformer proposes laying an amended mode of capital punishment. This simply consists in executing the condemned with chloroform. It would certainly be the easiest mode of dying, but will in all probability be rejected; for capital punishments can only be defended on the principle of the effect which they may produce on the living. The mere removal of the culprit from this world, for the sake of putting him out of harm's way, can never excuse us from taking that which God alone can give,—the life of man.

MAGNETISM.

I omitted to mention, in reference to magnetic matters, that the "modern Sibylle," whose condemnation I noticed some time back, had appealed against the verdict. The Supreme Court decided that the practice of magnetism could not be considered as "a taking of money under false pretences," and therefore revised that part of the verdict relative to swindling. The "Sibylle," however, was fined five francs for illegally practising medicine, which we may regard as letting her off scot free. The Judge should have paid a visit to the Opera Comique before he pronounced judgment. There he would have seen some of the inconveniences of magnetism.

A lazy and good-for-nothing valet sets his master to sleep, and then, by force of volition, compels him to do the said valet's business. At dinner time he throws the unfortunate master asleep, and regales himself with the delicacies of the season; at night he sends his master to the garret, and buries himself in the bed of down. The unhappy proprietor is reduced to a skeleton by this strange inversion of characters, effected through magnetism; and his punishment might have endured *in ævum*, had not a magnetic friend arrived *apropos*. The new comer plays the same trick on the valet which the man had played on his master, and thus explains the mystery.

This is a pleasant picture of some of the advantages we should reap from magnetism, were that diabolical science founded in truth. Its least inconvenience would be socialism,—a levelling of all conditions,—an alternate interchange of duties between master and slave.

But we must be impartial. The *auri sacra fames*—or, perhaps, dire necessity—has reduced several regular doctors of the faculty to the character of somnambulists; and, to suit all tastes, or kill as many birds as possible with the same stone, they combine with it hydropathy and homœopathy. A Dr. Dumez is particularly remarkable in this trinity, and practises with immense success—according to his own account of course—the "homœopathico-hydrotherapeutico-mesmeric" treatment. The jaw-breaker which he has selected for title is, however, a bar to his rise.

Accounts from Madrid inform us, that the homœopathists are peculiarly busy in that capital, where they have at length succeeded in obtaining a footing. The three-headed quackery—like Lamartine's tri-coloured flag—is making, as you see, a tour round the world. Popular errors, resembling prevalent maladies, have ever

been, and probably will ever continue to be, epidemic. They find in ignorance a fruitful soil, just as disease flourishes in filth, and nothing but improved cultivation will eradicate them.

DEVELOPMENT OF THE TESTICLE.

It has often been asserted that the accessory portions of a secreting organ are not developed in the absence of the principal organ itself. A curious case, related by M. Gosselin, at the last meeting of the Academy of Medicine, proves the contrary. A man had been executed for rape, followed by the murder of his victim. On examining the body no trace whatever of the right testicle could be found, yet the epididymis and vesicula seminalis of that side were perfect. The seminal vesicle, moreover, was filled with a yellowish fluid, which contained no spermatozoa. At the same meeting a case of rabies was related, in which the celebrated Abyssinian powder of M. d'Hericourt had been tried and failed. Not one of the effects expected from the remedy had taken place.

THE GALVANIC POULTICE.

M. Recamier has proposed a new method of employing galvanism locally, to which the above term may be fairly applied. The "poultice" is a small mass of cotton wad, containing a layer of thin zinc plates, and another layer of copper-plates. The wad is enclosed in a small bag, one surface of which is defended by some waterproof tissue. The poultice is applied as closely as possible to the skin, the impermeable surface being external. The cutaneous perspiration soon accumulates in the interior of the wad, and, being of an acid character, gives rise to the development of a galvanic current between the zinc and copper plates.

The idea appears to be ingenious, but I have not heard how far its application may have been useful in practice. Coming from such authority as that of M. Recamier, it is worthy of notice.

M. Coste, whose labours in comparative embryogeny are well known, was elected Member of the Institut yesterday. He is a comparatively young man, of great industry, but not a shining light. M. Coste accompanied Delpech to England on the first outbreak of Asiatic cholera, and since then has been an assiduous labourer at the Garden of Plants, picking up the crumbs which fell from de Blainville, Flourens, and others. Some people are assuredly born with a silver spoon in the mouth.

GENERAL CORRESPONDENCE.

PRISON DISCIPLINE.

[To the Editor of the Medical Times.]

SIR,—In your report of Dr. Winslow's paper on "Prison Discipline," in the *Medical Times* of March 29, I observe the following paragraph in reference to the mortality in different prisons, conducted under the system of separate confinement:—

"In the metropolis, the annual mortality between the ages of 15 and 17 is 15 3-10ths per 1000. The mortality varies in different prisons. At Springfield, the mortality is 14 3-10ths per 1000, whilst at Reading it is estimated at 41 per 1000."

Number of Prisoners Committed to the Gaol and House of Correction, Reading, from Michaelmas, 1844, with the Number of Deaths in each year.

	1844.	1845.	1846.	1847.	1848.	1849.	1850.	1851.
Number of Prisoners Committed ...	336	700	689	892	868	902	779	437
Number of Deaths.	0	1	3	1	2	4	2	1

Total number of Prisoners, including Debtors, committed since the Opening of the New Prison in 1844 5,053
Total Number of Deaths 13

The above table of mortality will show, that in regard to the prison at Reading the foregoing statement is altogether incorrect. The prison was opened for the reception of prisoners in 1844, from which time to the present, 5053 persons have been committed for various terms of imprisonment. Of this number 13 only have died from different diseases, which is rather remarkable, as, in the year 1848, several of the prisoners were attacked with typhus fever of a severe character, while in 1849, during the prevalence of the Asiatic cholera in this country, a great number of the inmates were affected with the diarrhœa, which, out of the prison, was generally observed to usher in the choleraic disease; and again in the early part of 1850, a certain number of the prisoners were attacked with a confluent small-pox of great severity. It will be observed, on reference to the table, that instead of the mortality being 41 per 1000, it has amounted to little more than 2 per 1000, and, as it has appeared to be my duty to contradict the erroneous statement contained in the paragraph in question, which, if suffered to pass unnoticed, might tend to mislead the public, who are interested in these matters, I trust you will allow me an opportunity of doing so through the medium of your pages.

I am, &c. F. A. BELLEY,
Surgeon to the County Prison, Reading.

17, Market-place, Reading.

THE SUPPOSED NEW INSTRUMENTS FOR THE TREATMENT OF STRICTURE OF THE URETHRA.

[To the Editor of the Medical Times.]

SIR,—The subjoined letter was addressed to the Editor of the *Lancet*, in the expectation—the delusive expectation, it would now appear—that, although its object was to correct a misstatement of a person connected with that journal, as Mr. Thomas Wakley, jun., is, yet a spirit of impartiality would have led to its publication. However, as two weeks have now elapsed without its appearing in that journal, I am induced to request that you will, by publishing it in your next number of the *Medical Times*, put the Profession in possession of the fact, that the instruments are not new, nor the treatment "novel."

It would occupy too much of your space if I were now to enumerate the reasons which led me to abandon this treatment as both inefficient and dangerous. However, if you will give me your permission I will, at an early period, lay before your readers the results of my experience; and, if I am not misinformed, I shall be able to adduce confirmatory evidence in support of my conclusions, from the results in recent cases in which this treatment has been practised. I am, &c. F. B. COURTENAY.

[To the Editor of the Lancet.]

SIR,—I observe, in a report of a clinical lecture on the treatmen of stricture of the urethra, published in your journal of the 22nd instant, and purporting to have been delivered by Mr Thomas Wakley, that, in referring to a mode of treatment which he has recently adopted, he asserts that it is a "novel" method. Now, as this statement is incorrect, and Mr. Thomas Wakley knows it to be so,—unless he means to question my veracity,—I beg to submit the following statement to your readers, that they may judge for themselves how far this representation is consistent with the truth.

Many years since I had a silver catheter made, with a removable thumbscrew to attach to it, and a directing rod to screw on to the external extremity of the catheter after its introduction to the bladder, and both solid and flexible tubes, for the purpose of passing them along the directing-rod and catheter through the strictures to the bladder, and thus to dilate the contracted urethra. Immediately on the first appearance of the account of the supposed new instruments in your journal, I went down to Messrs. Weiss, and requested to be shown them, stating that I thought, from the description, they resembled mine. On seeing them, I found the catheter and its apparatus perfectly similar. The flexible tubes were the same, but the silver were much better made than those which I had used. I at once returned home, had a search for my instrument, and having found the above described catheter and its apparatus, with a flexible tube, I went again to Messrs. Weiss and submitted them to their inspection, when they at once acknowledged the resemblance between the instruments, and expressed their regret. This was on Saturday, the day of the publication. On the next day, (Sunday,) I called on Mr. Thomas Wakley for the purpose of showing him my instruments. I did not, however, see him. On the same day I had to call upon Professor Fergusson on another matter, and I took the opportunity of showing them to him. A day or two after this I wrote to Mr. Thomas Wakley to inform him of the object of my visit on the Sunday, and at the same time to offer to show him my instruments, if he liked to call upon me. After an interval of nearly a week, I received an acknowledgment from him of the receipt of my communication; but, as he did not or would not appear to understand the object of my letter, I wrote him a second, distinctly telling him I had long since, in all essentials, forstalled his idea and instruments. To this communication I have never received any reply. Since this, Mr. Gay has seen my instruments, and was perfectly astonished at the entire similarity of Mr. Thomas Wakley's catheter

and apparatus to mine. I also showed my instrument to Sir B. Brodie, on his being at my house last Monday, and on Sunday morning last to Mr. Guthrie.

I have only to add, that I do not, in the remotest degree, mean, by this statement, to infer that Mr. Thomas Wakley did not originally entertain the idea that the instruments and treatment were entirely "novel," and under that conviction submit them in perfect good faith to the notice of the Profession. How far he has exhibited the same good faith since he has been made aware of the facts which I have stated, I leave your readers to determine.

I remain, Sir, yours, . F. B. COURTENAY.

Chandos-street, Cavendish-square, March 26, 1851.

[There is nothing new under the sun. What dies in one age revives in another. The world presents a succession of changes. It is a great kaleidoscope, and we have only to stand still and watch its revolutions to see what we have seen before. It is not our habit to publish communications that have been rejected by our contemporaries. In this instance we depart from our rule to point the moral we have sketched above. Neither Mr. Thomas Wakley, nor Mr. F. B. Courtenay have the slightest claims, in this case, to originality. They may both yearn after immortality, but they must obtain it through other media than their treatment of permanent stricture. The principle of the plan the one has proposed and the other claims, is as old as the hills. It originated years ago with Dr. Buchanan of Glasgow; and years ago it was repudiated. Mr. Borlase Childs, in his little book on Gonorrhœa and its Consequences, (Highley, 1843,) described it, (p. 121,) and referred the reader, as we now do, for a particular description and drawing of the instrument to the *Medical Gazette*, Vol. I., p. 916, 1840-41.—ED. *Med. Times.*]

MR. WILDE'S REPORTS.

[To the Editor of the Medical Times.]

SIR,—Permit me to thank Mr. Wilde for the eulogistic testimony he has given in favour of my new treatment of diseased tympana, in his valuable paper, published in the *Medical Times* for March 29, at the same time I beg to assure him that he would find it much more successful if he would follow more closely the directions I have given for its application. The cotton should NOT be made to fit into the aperture of the membrane, but should be allowed to press gently and externally against the remaining portion of membrane; for there is no doubt that the *modus operandi*, which I could not explain at the time of the first publication of this singular fact, is referrible to the support the moistened cotton affords to the chain of ossicula, of which support they have been deprived by the destruction, partial or entire, of the membrana tympani. In no other way can we account for the instantaneous loss of hearing on the removal or sudden displacement of the pellet of cotton, and its restoration on its readjustment. More than once I have felt myself called upon to correct this deviation from my plan. Many hundreds of persons with diseased tympana are deprived of the advantages of this treatment from a misunderstanding on the part of practitioners of the principles or maladroitness in the mode of applying it. It is to be regretted that aural surgeons will not condescend to pay me a visit, and take a lesson in its application. I must not be considered presumptuous in speaking thus egotistically, for be it remembered I had practised the treatment six years before I published an account of it, now three years ago. And this brings me to the more immediate object of my present communication, which is to show how possible, nay, how easy it is for the most intelligent, practical, and observant men to overlook a great and important fact in medical practice. Mr. Wilde tells us that his attention had been drawn to the case of a young lady in Clonmel, who had herself used the cotton for five years; but, believing it to be an isolated case, he thought no more of it. The imperfect hint afforded me by an English gentleman resident in America, and who came from New York to consult me, was first worked out into a system of treatment by myself on a young lady, the daughter of a wealthy London brewer, a patient sent to me by Mr. Squibb, now nine years ago, and from that time must date the discovery. But the following correspondence, which appeared in the *Union Médicale*, consequent on the first notice of the new treatment in the French journals, will show how narrowly I was forestalled in the working out and promulgation of the fact. It is not a little singular that men of observation, like Itard and Deleau, should have overlooked it when brought, as it were, under their very nose. M. Deleau thus writes to the *Union Médicale*:—

[Translation.]

To the Editor of the Union Médicale.

"SIR,—I shall be very much obliged to you, if you will kindly insert the following reclamation, in reference to an article in one of the last numbers of your journal:—

"*Treatment of Deafness caused by Perforation of the Membrana Tympani.*

"An article under this title has been published in the English *Lancet*, in which it is said: "Perforation of the membrana tympani, and the deafness consequent thereon, have not hitherto been the subject of much attention. . . . It is very extraordinary that no person has thought of repairing, artificially, lesions of the membrana tympani." On my part, I say it is very extraordinary that works upon a special subject are overlooked which do not require very extensive erudition.

"Mr. Yearsley, according to the *Lancet*, was consulted in 1841 by an American gentleman, who had been deaf from his earliest years, and in whose case there existed considerable disorganisation of the tympanic cavity. He made this remark to the patient, who replied, that, notwithstanding such was the case, he could obtain very considerable hearing in the left ear by very simple means, which consisted of introducing into the auditory passage, quite to the bottom, a small roll of paper, the extremity of which had been moistened in his own saliva. The effect was immediate, and would sometimes last an hour, a day, &c.

"In 1820 I published a similar fact, consequently twenty-one years before that cited by Mr. Yearsley. It is related in my "Traité de la Perforation de la Membrane du Tympan," printed in 1822, p. 11. The work was translated into German in 1823. Richalet, 24 years of age, was attacked with a serious malady at ten years of age, which occasioned a purulent discharge from both ears, and a deafness so great, that he could not hear conversation with the right ear, and the left ear only served him when addressed in a very elevated tone of voice. One day he mechanically introduced into the left ear a little bit of wood, when, to his surprise, he immediately heard all the noises in the street! But, how great was his disappointment when this precious bit of wood was withdrawn, and with it the loss of hearing! Another day, by experimenting, he enabled himself to hear persons speaking in the ordinary voice, after inserting into the passage of the ear an onion sprout, which he replaced by another every five or six days, or when it became displaced from the spot which it was necessary should be occupied to afford the increased sensibility to sound."

The remainder of M. Deleau's letter is occupied in discussing the relative merits of the cotton remedy and the invention of a little instrument which he proposes should be worn in the ear with a small sponge attached to its extremity. I have no hesitation in saying that no ear would bear the irritation such an instrument would create. To this reclamation I made the following reply:—

To the Editor of the Union Médicale.

Sir,—Permit me to thank you for having introduced to the numerous readers of your valuable journal, the subject of my new mode of treating diseased tympana by the application of the hydrated cotton.

I find that your notice of my invention has called forth a claim to priority from M. Deleau, upon which I beg to offer a few brief remarks.

It was in July, 1848, I first made known to the Medical Profession in England, through the medium of the *Lancet*, that a small piece of cotton, wetted in water, introduced in a peculiar manner into the passage of the ear, and placed on a particular spot, in cases of perforation of the drum of the ear, would reproduce the hearing to a remarkable extent, which improvement was experienced only so long as the cotton wool occupied the spot in question. This fact I substantiated by numerous cases. Before I published on the subject, I felt it my duty to satisfy myself, by reading every work which had ever been published on diseases of the ear, that no such mode of treatment had been recommended by any author, British or foreign, otherwise I could have made no claim to such an important discovery. Nevertheless, after making it known, isolated cases turned up in which patients had adopted different expedients to produce the effects which my American patient had done, but not one had ever thought of using cotton-wool, or anything else *continuously* in the ear. One lady had been enabled to "open her ear" occasionally, as she expressed it, for upwards of thirty years. A gentleman wrote me from the Cape of Good Hope, to congratulate me on the discovery, verifying it by stating

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that he had reproduced the hearing in his own case at times for upwards of eight years by somewhat similar means. A young lady in Ireland (I believe the identical yonng lady whose case is referred to by Mr. Wilde) wrote me to say that she had introduced cotton-wool moistened into the passage of the ear for several years, with the happiest effects; that she had mentioned the fact to medical friends, who had ridiculed the idea of its improving the hearing!

The case of Richalet, quoted by M. Deleau, is another corroboration of the fact, but nothing more; and so little importance seems to have been attached to it, that the case is absolutely referred to by that gentleman in a foot-note, as if it were almost foreign to the subject on which he was writing, namely, "*Perforation of the tympanum and its treatment.*" Not another word occurs throughout his memoir pointing to any such mode of treating similar cases! With what grace, therefore, M. Deleau can put forward any claim to priority of observation or practice I leave to your readers to judge. But, what will M. Deleau say to the following? His letter has led me to turn over every page of the voluminous work of M. Itard, published in 1821, *one year prior to the memoir of M. Deleau*, and in a part of that work where one would least expect to find it, is related the following complete confirmation of my new mode of treatment.

"Je m'aperçus que ce jeune homme (d'Ossières, de Besançon) recouvrait l'ouie pour quelques minutes à la suite de la douche que je lui faisais donner chaque matin dans le méat auditif. Pour rendre cet effet plus durable, j'essayai de porter dans l'oreille un tampon de coton mouillé, pas assez volumineux, cependant, pour la boucher complètement. Le succès de cette application fut complet, mais il ne se manifesta que lorsque, comme je l'ai dit plus haut, ce corps étranger toucha au fond de l'oreille, lequel, dans ce cas, devait être la caisse elle même. Il fut très facile à ce jeune homme d'apprendre à placer lui-même cet officieux bouchon dans son oreille, et de la maintenir ainsi constamment dans un état analogue à la guérison la plus complète."—*Traité des Maladies de l'Oreille*, 1821, tom. ii. p. 92.

Now, although M. Itard's work extends to 918 pages, not another word occurs in reference to this singular fact.

And now, Mr. Editor, what deductions are to be drawn from these statements? are they not:—1. That from the earliest ages here and there, persons afflicted with diseases of the ear involving the tympanum have adopted different means of "opening the ear" to increased sound? 2. That it has been left to me to found a regular system upon the imperfect hint of another? M. Itard was doubtless a man of observation, but he allowed a grand fact to escape him. M. Deleau, a man of observation also, is found in similar circumstances to M. Itard. When the same fact, in the person of my American patient, came under my notice, I persevered until I found the means of reducing it to practice; and I can now refer to more than 300 patients, who, having received my instruction, are using the cotton with unvarying success.

It seems to me that my case is analogous to that of Jenner. The milkmaids had long observed their immunity from small-pox, and it became known to Jenner,—hence his discovery. The American's case became known to me,—hence my discovery. The isolated cases above adverted to, the case of d'Oissières, related by Itard in 1821, and the case of Richalet, related by Deleau in 1822, can be considered no more than excellent verifications of the fact. I submit, therefore, that MM. Itard and Deleau stand in relation to me, who have reduced the artificial tympanum to a system, as the milkmaids did to Jenner, and no more.

The modification of my method proposed by M. Deleau is attractive enough in theory, but I do not believe it will apply in practice. The chief recommendation of the pellet of cotton moistened in water or the saliva of the patient is its extreme simplicity; and I am persuaded that the ear would not support a substance more complicated. I am, &c.

15, Savile-row. J. YEARSLEY.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Dr. MURPHY, President, in the Chair.

POISONING BY ARSENIC, AND DELIRIUM TREMENS.

Dr. Ryan communicated a case of arsenical poisoning where, after a large dose, the symptoms were long delayed, and the sufferings much protracted. After referring to the supervention of symptoms which by medical jurists are said to be seldom delayed beyond an hour, he adduced several authorities to show that symptoms occasionally may not arise for hours, and one case, given in Taylor's "Manual of Medical Jurisprudence," where symptoms were delayed for ten hours, "the maximum period yet known." Among these authorities he alluded to the *Edinburgh Medical and Surgical Journal*, where is given the case of a Mrs. Smith, who was acquitted on a trial for murder for poisoning with this substance, because symptoms did not arise for eight hours after anything suspicious had been administered. He cited Orfila, as giving a case where symptoms were delayed for five hours; another from the *Edinburgh Medical and Surgical Journal;* one by Dr. Lachèse, as quoted by Taylor; one by M. Tonnelier; one by Mr. Greaves, in the *Medical Gazette*, Vol. XLV.; one by Mr. Thompson, of Nottingham; by Dr. Booth, of Birmingham, &c.; showing that symptoms have been delayed from five to, in one case, eight hours. Alluding to the period of time when death takes place after a dose of arsenic, Dr. Ryan referred to Mr. Herapath, who says that, "though he never knew of a case where, a sufficient dose having been taken, death was prolonged beyond twenty-four hours, yet that there are recorded cases of persons living three days after taking a large quantity of arsenic." He thought his case presented features worthy of record, as regarded the quantity of poison taken, the length of time intervening before symptoms occurred, and the length of time the person lived after taking the arsenious acid.

Dr. Ryan was called, on Wednesday, July 14, 1847, to see Wm. H. H., who was reported to have taken poison. He found him in bed on his back, vomiting frequently. He appeared quite collected, and seemed intelligent. He said that, some time previously, two men, in presence of a woman, had used an opprobrious epithet towards him. (He had before this been unfortunate in business.) From the evidence afterwards given, this turned out to be a delusion. He said that on the day before he had taken half an ounce of arsenic in porter, afterwards adding water to take up what remained, and that he did not begin to vomit until eleven at night. His brother deposed at the inquest to this fact, as well as to the fact of his having rinsed out the pewter vessel from which the poison was taken; he had noticed a very small quantity of a white sediment, not suspecting its nature. That half an ounce was the quantity, was ascertained from the person who supplied the deceased with the arsenic. The brother gave evidence, that after vomiting at 11, deceased did not, to his knowledge, get out of bed again until half-past 7 next morning, and did not even then complain. His vomiting and thirst were attributed to the usual effects of his "drinking bouts." He had been tippling for a week previously. This brother slept with deceased. On the first visit the extremities were cold and damp; no pulse at the wrist; scarcely perceptible higher up, quick, feeble, small—about 80. There was a feeling of great prostration, and yet he frequently quickly raised himself on his elbow to vomit, which could scarcely be expected from the deadly coldness of the extremities. He did so with a sudden effort, and then fell back exhausted. The thirst was intense, and he complained of a burning pain down the œsophagus, of severe pain in the epigastric and hypochondriac regions, much increased by pressure, with pain over the whole abdomen. He was very restless. No inflammatory appearance about mouth or fauces. One basinful, the first he had vomited, had been removed before Dr. Ryan arrived, two remaining, in the first of which were about four quarts of a yellow, in the second, about three quarts of a very dark green fluid. Hydrated peroxide of iron was quickly administered, followed immediateiy by sulphate of zinc. This acted by the time the stomach-pump was adjusted. The stomach was repeatedly washed out with lime-water; the extremities were rubbed with strong liniments; the iron continued, with oleaginous aperients afterwards; ether, opium, and aromatic spirits of ammonia. Here existed many of the symptoms of poisoning; yet the whole history, and the time to which symptoms were delayed, were calculated to raise a doubt whether arsenic had been taken, and made the case one of unusual interest. Dr. Ryan, therefore, had both basins removed for the purpose of analysis. It will be borne in mind, that the first basinful vomited had been thrown away, the second and third remaining; and it is most important to remember, that in the third basin, in which were the contents of the stomach drawn by the stomach-pump, washed, as it were, from their adhesion to the mucous coat, the arsenious acid was not only much more quickly thrown down, but, from the very *sediment* in it being dried and mixed with black flux, a ring of metallic arsenic was procured by the application of heat, showing it had remained during twenty-four hours undissolved in the stomach. Some of this sediment, when thrown on glowing charcoal emitted the garlic odour. In conse-

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quence of the summoning officer saying the deputy-coroner's orders were, that in case proof could be given of the man's having died from the effects of arsenic, the body was not to be opened, Dr. Ryan used all the necessary tests in order to lay before the jury the poison in its different states. He therefore employed all the usual tests, and fully demonstrated the presence of arsenic. At the inquest, a verdict was given that deceased died of the poison taken while labouring under temporary insanity. It should be mentioned, in justice to the memory of the deputy-coroner, the late Mr. Mills, that he allowed the same fee as if the *post-mortem* had been made. The patient wandered a little during the first visit, and imagined he saw people in the looking-glass. There was no attempt to rally throughout. On Monday night, the 15th, the pains increased intensely, with extreme thirst. He was then seen in company with Mr. Wade. During the night he passed dark bloody stools, of a very offensive character. Next morning he was very thirsty, very impatient, and restless from severe burning pain and spasms of the extremities, and about twelve o'clock he died convulsed, surviving, within an hour or two of three days after taking the poison. Some time ago, in such a case as this, had arsenic been given by a second party, the proofs being slight, and the person accused being shown not to have had access to the sufferer for a certain number of hours, he might have escaped, from the idea that the symptoms could not have been so long delayed. This case, however, is conclusive that symptoms may be long delayed, and may be of value as a guide in future cases of criminal poisoning. Here is a person taking, at two o'clock, half an ounce of arsenic, and not vomiting until eleven at night. So little annoyance does he suffer during the night, that his brother, who slept with him, did not know of his getting out of bed again until half-past seven next morning; nor even then, nor up to nine, when the brother left home, did he complain,—a period of nineteen hours,—and it was only on his return, at twelve, that he was made aware of poison having been taken by the relative with whom he slept. The fact may here be observed, that nearly three days elapsed before the fatal result after such a dose, as if the previous week's tipling had so enervated the stomach, and so prevented its usual healthy action, as in its deranged state thus to delay the usual effects of the poison. It may also be noted that, although two basinsful had been vomited, yet there was more of the poison in the third, washed out, as it were, and dislodged by the stream from the stomach-pump.

Mr. Wade said that he saw Dr. Ryan's patient on the evening after he had taken the poison. The symptoms were then more those of nervous prostration than of inflammation, and so continued throughout. The man was dozing and muttering to himself, not apparently suffering, and answered rationally if spoken to in a loud voice. He complained of pain, and a burning sensation, with constriction at the lower part of the chest, and also in the hepatic region. The pulse was a mere thread, and the tongue blackish, with a coat of bloody mucus. Mr. Wade explained the fact alluded to by Dr. Ryan, that the third basinful vomited by the patient contained more arsenic than the two preceding, by stating, that in these cases there is a large quantity of mucus thrown out by the coats of the stomach, to which it strongly adheres, and which must be removed before the arsenic can be detached and washed out from that organ.

CASE OF HYDATIDS, OR VESICULAR MOLES IN UTERO.

Mr. Hutchinson read the following case:—

Mrs. H., aged 25, married more than three years, the mother of two children, the youngest now fifteen months old. She has always enjoyed a good state of health until the first of January last, when she menstruated, and shortly afterwards thought herself pregnant. About three weeks ago she had a discharge of blood *per vaginam*, which continued, with short occasional intermissions, until the expulsion of the hydatids. On the 23rd of March there was considerable uterine hæmorrhage, attended with severe pain in the back and head. On the 27th the same symptoms returned, with great tenderness over the abdomen, and she lost a considerable quantity of clotted blood. The abdomen suddenly enlarged, and the swelling appeared greater on the right side than on the left. On the 31st she suffered all day from severe uterine pains, similar to those of labour, attended with slight hæmorrhage. April 1st, 3 a.m., Mr. Hutchinson was called to her. Pulse 130; very weak. On examination *per vaginam*, there was a large mass, which he believed to be the ovum, protruding through the os tincæ; but, on removing it, he ascertained that it contained a large quantity of hydatids, resembling a bunch of grapes, varying in size from a pin's head to a good sized nut. They are called by some writers *acephalocystes multifia*, and by others, *tæniahy datigena*. Tinct. secali, with mineral acids, was given, and morphia at night to relieve the pain. The tenderness over the abdomen was considerable after the expulsion of the hydatids, but, by warm applications externally, and opiates internally, the pain gradually subsided, and she is now convalescent. If pregnancy had existed, the germ had been most probably destroyed, as not even the rudiment of a fœtus could be found.

Mr. Thomas Wakley read a paper on

EXCISION OF THE ASTRAGALUS AND OS CALCIS,

WITH SOME GENERAL OBSERVATIONS ON THE EXCISION OF JOINTS.

Excision of the extremities of the bones of joints, was first practised in 1782, by Mr. Park, one of the surgeons of the Liverpool Infirmary. In the same year, Moreau excised the extremities of the bones of the elbow-joint, and in a fortnight after the operation the patient was so well, that he was allowed to go wherever he pleased, with his arm supported in a case. It was at first powerless, but it slowly regained its strength, and the man could ultimately thrash corn and hold the plough with it. In the same year, (1782,) the excision of the elbow-joint was twice performed by another French surgeon, and in both cases with complete success, the patients retaining considerable movement of the arms. Operations for the removal of the extremities of bones entering into the formation of the different joints, have been practised since by English as well as continental surgeons; and the general success which has attended them fully justify their repetition. The limbs which have been saved are, in many instances, living monuments of the triumphs of surgery. Until the last few years, the ankle-joint was not considered favourable for the operation of excision, its complicated machinery and anatomical relations being considered impediments to the complete excision of the ends of the bones. Some surgeons still adhere to the opinion, that it is necessary to amputate the foot for disease of the bones of the tarsus; thus we have the operations of Chopart and Syme for the removal of portions of the foot. However, there are cases on record, and there is evidence afforded by the condition of patients themselves, proving in some cases the superiority of excision of the ankle-joint over amputation of the foot. While contemplating the operation, an account of which formed the principal feature in his paper, Mr. Wakley received great encouragement from reading the cases of compound injuries to the ankle-joint, narrated by Sir Astley Cooper in his treatise on Dislocations and Fractures, as it was shown by this celebrated surgeon that these cases had recovered and done well after the most severe forms of dislocation and fracture, where even the astralagus was dislodged or extracted. Thus Mr. Wakley had operated three times upon the ankle-joint, in two cases partially excising the bones of the joint. In both cases amputation had been considered necessary; but the modified operation had saved the limbs. The third case was that of William Brown, lately exhibited to the Society as having undergone excision of the astragalus and calcis. The operation, which was perfectly successful, but the steps of which it is unnecessary to relate, was of a novel character—the astragalus and calcaneum, together with the malleolar processes of the tibia and fibula, being removed for extensive disease existing in the two first-named bones.

In the discussion which followed, several members took part. Great praise was bestowed on the operator, especially for his diagnosis of the disease, and its extent. Mr. Childs, however, objected to the operation being called by Mr. T. Wakley's name. The diseased bones, it was said, had been mislaid, but would be exhibited to the Society as soon as they were recovered.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 4th inst.:—

BRAKYN, HARRIS CARR, Dublin.
BUCKNILL, HENRY WALTER, Rugby, Warwickshire.
CRESSWELL, THOMAS HOBBES, Folkestone, Kent.
HAYE, WILLIAM DAVEY, Callington, Cornwall.
MITCHINSON, GEORGE JONATHAN, Carrington, Lincolnshire.
RUSSELL, JULIUS GRAINGER, Dudley, Worcestershire.
SANDERSON, GEORGE WILLIAM, Canada.
SEATLE, HENRY, Ulverstone, Lancashire.
SHILLINGFORD, ISAAC SHORTLAND, Greenwich.
STAFFARD, STEPHEN JOHN FREDERICK, Northfleet, Kent.

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Sullivan, Edward, Dublin.
Tracey, John Wise, Acacia-road, Regents-park.
Wason, Edmund Sidney, Calmonell, Ayrshire.

At the same meeting of the Court, Mr. William Beresford Chambers Christy, passed his examination for naval surgeon. This gentleman had previously been admitted a member of the College, his diploma bearing date December 19, 1845.

The College of Surgeons.—The following petition has been addressed to Her Majesty's Government:—To the Right Honourable Sir George Grey, Bart., Her Majesty's Principal Secretary of State for the Home Department:—Sir,—On behalf of the deputation of provincial surgeons, to whom you accorded an interview on the 2nd of May last, the undersigned respectfully memorialize you on the subject of certain resolutions adopted by the Council of the Royal College of Surgeons of England, on the 19th and 24th of last month, resolutions to which the Council request your sanction, in reference to further alterations deemed necessary in the charters and by-laws of the College. The memorialists recognise, with the greatest pleasure, the liberal and conciliatory spirit of this proceeding of the Council, and now entertain the fullest confidence that the difficulties which have hitherto obstructed all attempts at medical legislation may readily be overcome. Your attention is earnestly solicited once more to the propositions affecting the College of Surgeons, which the Deputation had the honour of submitting to you on the occasion of their interview. The memorialists respectfully urge upon you, that an unqualified adoption of the propositions in question would equitably and satisfactorily adjust the differences that of late have subsisted between the Council and the members of the College. In fact, with the exception of two points, the recent resolutions, in conjunction with those previously adopted on the 23rd of April, 1850, concede what has been solicited. A membership of fifteen, instead of twenty years, as a preliminary qualification for admission to the fellowship, on the part of those who were members prior to the grant of the Charter of 1843, and an abolition of the fee of ten guineas; the requirement of which would indicate an invidious distinction between the already nominated fellows and those to be admitted hereafter, would, the memorialists are assured, unite the entire body of the College in approval of the heads of a charter that would facilitate and render practicable a general measure of medical legislation, which, in satisfying and elevating the Profession, would correspond with the exigencies and the requirements of the community at large.—We have the honour to be, Sir, your obedient servants,

Wm. Watson Brevor, Chairman.
Peploe Cartwright, Oswestry,
Geo. Southam, Salford,
Sam. A. Philbrick, Colchester,
} Hon. Secs.

Manchester, April 8, 1851.

Medical Appointments and Vacancies.—Medical officers are required for the East Grinstead Union. They will be called upon to afford medical and surgical relief and assistance, including drugs, medicines, and appliances, and medical certificates of paupers' lunacy. Salary for the first district, with a workhouse, 90*l.*; for the second, with a workhouse, 41*l.*; for the third, with a workhouse, 72*l.*; for the fourth, also with a workhouse, 63*l.* 10s. Midwifery, 10s. 6d.; successful cases of vaccination, 1s. 6d. each; and the remuneration for operations on out-door paupers as fixed by the Poor-law Board. The extras for last year in first district were 54*l.* 9s.; in the second, 13*l.* 13s.; in the third, 25*l.*; in the fourth, 17*l.* 16s. The election is for one year. Two resident medical officers are wanted at St. Mary's Hospital. They must hold a qualification in medicine, and must be more than 22 years of age. Board and lodging are offered, but apparently no salary. The appointment is for four years only. At the Warwick Dispensary a resident house-surgeon and dispenser is wanted; salary 50*l.* a-year, with apartments and coals. He is allowed to engage in private practice. Medical officers are also wanted for the Edmonton Union; salary 30*l.* a-year for each district, with the extras usually allowed. One medical man may take two districts. The population of each district is about 3000. Mr. Holmes Coote has added his name to the list of candidates for the vacant appointment of Assistant-Surgeon to the Royal Orthopædic Hospital. The Committee of the London Ophthalmic Hospital have recommended the appointment of a third Assistant-Surgeon, and Messrs. Nunn, Wordsworth, and Macmurdo, jun., are already candidates for the office. Dr. James Johnstone, the senior physician to the General Hospital, has been appointed joint professor of medicine, and Dr. Samuel Wright, physician to Queen's Hospital, joint professor of therapeutics, in the medical department of Queen's College, Birmingham.

Military Appointments.—10th Light Dragoons, Assistant Surgeon James Macbeth, M.D., from the 10th Foot, to be assistant-surgeon, vice John Edward Stephens, who resigns. Coldstream Regiment of Foot Guards, Battalion-Surgeon William Thomas Christopher Robinson, to be surgeon-major, vice Edward Greatrex, who retires upon half-pay. Assistant-Surgeon James Munro, M.D., to be battalion-surgeon, vice Robinson. Frederick Wildbore, gent., to be assistant-surgeon, vice Munro. 10th Foot, John Julius Evans Jacob, gent., to be assistant-surgeon, vice Macbeth, appointed to the 10th Light Dragoons. 13th Foot, Staff-Assistant Surgeon Richard Robert Dowse, to be surgeon, vice John Robertson, M.D., who retires upon half-pay. Hospital Staff, John Hoffman, gent., to be assistant-surgeon to the forces, vice Dowse, promoted in the 13th Foot.—Commissions signed by the Lord Lieutenant of the County of Devon: North Devon regiment of Yeomanry Cavalry, Charles Colville Turner, gent., to be Surgeon; Thomas Cowdray, gent., to be Assistant-Surgeon.

The surgeoncy to the new prison at Wandsworth, as we are informed, will not be filled up for some months yet.

The Flaxman Gallery at University College.—On Tuesday His Royal Highness Prince Albert, attended by Colonel Grey and Colonel Gordon, inspected the Flaxman Gallery at University College, of which he had before testified his estimation by placing his name at the head of the subscribers. His Royal Highness expressed his admiration of the effect produced by the tasteful arrangement of the works in the hall under the dome. The Prince remarked that he had long been an admirer of Flaxman's genius, and had evinced it by having given orders for the execution of fictile vases with designs from his outlines. This collection of the works of our great artist, now in course of formation, which has examples in the Gallery of Thorwaldsen in Denmark and Canova in Italy, will, we may confidently affirm, not be inferior to them, nor to any others which the Continent can boast. In a short time the subscribers and the public will be invited to view the gallery, which already consists of about fifty of the most excellent of Flaxman's works—a still greater number remain to be fixed. His Royal Highness, after a minute inspection of the sculptures, visited the New General Library, the Museum of Anatomy, the Medical Library, and the Birkbeck Library of Analytical Chemistry. Many gentlemen connected with the Flaxman Hall and the College attended to receive the Prince. By express desire of His Royal Highness his intention to visit the College was kept as private as possible, but his presence in the building having become known, he was warmly cheered on his departure by the students and pupils of the school.

Epidemiological Society.—At the meeting on Monday night, some difficulty was experienced in obtaining a chairman to supply the place of Dr. Babington, who was unavoidably absent in consequence of a death in the family. After the honour had been bandied about a bit, Dr. Snow was prevailed on to take upon himself the duty. Sundry documents were then read; after which the annual report of the Council was submitted to the meeting. It represented their affairs as very flourishing, and intimated the belief that the Epidemiological Society would take its place among the learned and scientific societies of the metropolis. But, alas! the next document—the report of the auditors—cast a veil over the glittering prospect, for it showed that, of the 86 subscribers, 19 were defaulters; and that, with an income of rather more than 70*l.*, their expenses exceeded 114*l.*, the Society being indebted upwards of 37*l.* This was evidently unpleasant news, and out of a very thin meeting but few hands were held up in approval of the reports. The election of officers afterwards took place, the house-list being carried—perhaps because there was no opposition. Dr. J. B. Thomson, we perceive, is no longer one of the secretaries; he will be no loss to the Society. Mr. Charles Cochrane, the popularity-hunter, tried to create a little unpleasant discussion, and some time was wasted in listening to him, and a little unpleasant feeling engendered, which at one time we feared would become epidemic. He was silenced at last.

BIRTHS AND DEATHS.

	Births.	Deaths.	Births over Deaths.
Males	808 } 1560	571 } 1050	237 } 510
Females	752 }	479 }	273 }

The Deaths in the several Districts are as follow:—

Districts.	Population in 1841.	April 5, 1851.	Sum of Ten Weeks.
London	1948369	1059	9457
West	301189	151	1431
North	376568	226	1813
Central	374199	195	1767
East	393067	214	2009
South	503346	273	2497

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DEATHS *in the Metropolis for the week ending Saturday, April* 5, 1851.

Causes of Death.	April 5. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	468	340	230	1059	9457
Specified Causes	467	339	230	1038	9391
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	130	27	23	180	1658
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	3	21	23	47	488
3. Tubercular Diseases.	75	125	7	207	1769
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	40	38	36	123	1240
5. Diseases of the Heart and Blood-vessels	2	26	7	35	331
6. Diseases of the Lungs, and of the other Organs of Respiration ...	108	47	65	220	1651
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	33	20	12	65	557
8. Diseases of the Kidneys, &c. ...	...	9	4	13	93
9. Childbirth, Diseases of the Uterus	...	3	...	3	92
10. Rheumatism, Diseases of the Bones, Joints, &c.	2	1	1	4	80
11. Diseases of the Skin, Cellular Tissue, &c.	1	1	...	2	13
12. Malformations	1	...	...	1	23
13. Premature Birth and Debility ...	20	1	...	21	242
14. Atrophy	32	...	1	33	155
15. Age	...	...	42	42	531
16. Sudden	3	3	5	11	161
17. Violence, Privation, Cold, and Intemperance	8	17	4	31	307
Causes not Specified	1	1	...	21	66

1. Small-pox ...	9	Paralysis	23	Disease of Spleen	...
Measles	23	Delirium Tremens	3	8. Nephritis.....	2
Scarlatina ...	6	Chorea	1	Nephria or Bright's Disease ...	3
Hooping Cough	59	Epilepsy	7	Ischuria	...
Croup	2	Tetanus	1	Diabetes	1
Thrush.....	1	Insanity	1	Stone	...
Diarrhœa ...	11	Convulsions	34	Cystitis	...
Dysentery ...	3	Disease of Brain, &c.	12	Stricture of Urethra ...	...
Cholera	...	5. Pericarditis...	3	Disease of Kidneys, &c.	7
Influenza ...	23	Aneurism ...	1	9. Paramenia ...	...
Purpura and Scurvy.....	...	Disease of Heart	31	Ovarian Dropsy.....	...
Ague	...	6. Laryngitis ...	5	Childbirth (see Metria)	2
Remittent Fever	2	Bronchitis ...	95	Disease of Uterus, &c.	1
Infantile Fever	...	Pleurisy	2	10. Arthritis	...
Typhus	32	Pneumonia...	81	Rheumatism	2
Metria or Puerperal Fever	2	Asthma	24	Disease of Joints, &c.	2
Rheumatic Fever	...	Disease of Lungs, &c.	13	11. Carbuncle ...	...
Erysipelas ...	5	7. Teething	22	Phlegmon ...	1
Syphilis	2	Quinsey	...	Disease of Skin, &c....	1
Noma or Canker.....	...	Gastritis	1	17. Intemperance	2
Hydrophobia	...	Enteritis.....	4	Privation of Food.....	...
2. Hæmorrhage	4	Peritonitis ...	1	Want of Breast-milk	4
Dropsy.....	16	Ascites.....	3	Neglect	...
Abscess	2	Ulceration (of Intestines, &c.)	2	Cold	...
Ulcer	...	Hernia.....	1	Poison.....	...
Fistula.....	1	Ileus.....	2	Burns and Scalds	2
Mortification	3	Intussusception	...	Hanging, &c.	5
Cancer	19	Stricture of Intestinal Canal	1	Drowning ...	6
Gout.....	2	Disease of Stomach, &c.	4	Fractures ...	10
3. Scrofula	7	Disease of Pancreas ...	...	Wounds	2
Tabes Mesenterica	10	Hepatitis.....	4	Other Violence.....	...
Phthisis (or Consumption).....	149	Jaundice	3	All Violence	23
Hydrocephalus.....	41	Disease of Liver	17		
4. Cephalitis ...	13				
Apoplexy.....	28				

TO CORRESPONDENTS.

Glycerine.—We cannot sympathise with our Correspondent. We are aware that some few practical men have given it a trial; and, from their unfavourable expression of its virtues, we can only conclude, that either they have been very unfortunate in their selection of cases; or else are strangely insensible to its merits; or, lastly, that it is simply a novelty, valueless to every one but to those individuals who seek rather to obtain an extensive practice than to serve the interests of humanity.

A Young Practitioner.—There is no remedy we are acquainted with so difficult to manage as the administration of iron in the cases alluded to, viz, in delicate, excitable, anæmic females. We recollect cases in which every form of that metal had been tried, adopting at the same time every precaution as to the condition of the *primæ viæ*, &c., but where intense headaches invariably followed. Some of these were cured by administering the Edinburgh form of ferri carbonas c. saccharo, given immediately after a meal; and others by a combination of the tincture of digitalis with each dose of the iron. We observe this form of iron is introduced into the New London Pharmacopœia.

An Astonished Student.—Our Correspondent need not be astonished at the unblushing assertion, that Turpin "failed to discover the yeast fungus in its perfect form." The fact is, that Turpin has not only described and figured the "aerial fructification" of the fungus, in his paper in the "Memoires de l' Academie de Paris," but he has done more, in giving the name of the fungus, which is Penicillum Glaucum. We would recommend the "rediscoverer" to give the name after Turpin, in the second edition of his Essays.

We shall next week resume our remarks on the Irish Medical Charities.

Mr. F. B. Courtenay and Mr. T. Wakley.—It is not our habit to receive letters which have been rejected by our Contemporaries. In the present instance, however, we think it very unfair that Mr. Courtenay's letter was rejected, and therefore publish his communication.

We have not received Dr. Foucart's "Spinal Rectifier and Chest Expander."

The friend who writes from Dublin shall be attended to.

Dr. M'Williams' valuable paper on the Yellow Fever of Brazil is in the hands of the printer.

Studens.—Whewell, speaking of the definitions of species of plants, minerals, &c., says:—"Natural groups are given by type, and not by definition." The reason of this is clearly because a definition includes all the properties of a thing defined, and hence these definitions can be made the starting points of a train of logical deduction. Now, of a natural group we do not know all the properties, but only some of them, and hence we take a specimen possessing all these marks as the centre, and group those around it possessing more or less these marks. And this is the case with all real knowledge; and this explains several things which we ourselves, in former years, had not been able to see the wisdom of,—as Guizot's first lecture on civilization, in which he discusses several examples, but nowhere gives a definition of civilization, the reason being, of course, that he wishes to unfold in our mind an ideal which we may be able to recognise under many different forms, and which a logical definition would not perform,—for one could not be found which would include everything expressed in the word "civilization." In like manner, Maurice, in his lectures, never said what history was, but devoted a term in giving such explanation as would suffice to teach us what elements must be found united as a living whole in history: and Daniell was known to say, that if, at the end of his course, a definition of chemistry could be given by each of his hearers, that should involve many features of the science, he would be amply satisfied. All this appears to lie in the very conceptions of real and formal knowledge. Real definitions are formulæ, whose terms are to be explained by repeated experiments and examples; formal ones contain all the properties of the things defined, as that of the circle.

[To the Editor of the Medical Times.]

Sir,—I have read with much satisfaction, in the "Medical Times" of March 29, the new regulations of the Royal College of Surgeons. This is a move in the right direction; but if they expect to prevent a new college of General Practitioners, they must go on a step further,—they must be prepared to grant their diplomas to all those L.A.C.'s who have been in practice for twenty or thirty years, on their producing a recommendation from three members of the College, or fellows if you please. This would fill their coffers, and not disgrace their body. If such a plan as this can be brought about, the existing colleges may do; and may be, as they ought to be, the fountains from which all future medical and surgical practitioners spring. But this cannot be carried out without an Act of Parliament, and the Apothecaries' Society give up their powers. I am, &c. Argus.

[To the Editor of the Medical Times.]

Sir,—I shall esteem it a favour by informing me, in your next valuable paper, if a country general medical practitioner can charge for medicine and attendance in the same case, especially supposing that the attendance is necessarily frequent. I am, &c. Veritas.
Leyburn.

[The term "General Medical Practitioner" is unknown to the law, and we are therefore unable to give a satisfactory answer.

As regards English medical men in France, the law forbids them to practise unless licensed by the Faculty of Medicine for that purpose. Dr. Moffat, of Paris, we are fully aware, has petitioned the National Assembly on the subject, and his petition is under the consideration of a Committee. We refer the matter to our French Correspondent, who will no doubt put our readers in possession of the facts of the case.]

The second half-notes were forwarded from our Office on the 3rd. Payment will be stopped.

Communications have been received from—

Dr. Granville, of Piccadilly; Mr. John Savory, of Bond-street; Mr. F. A. Bulley, of Reading; Mr. Wilde, of Dublin; Mr. Yearsley, of Savile-row; Mr. F. B. Courtenay, of Chandos-street; Dr. Radcliffe, of Henrietta-street; Argus; Studens; A Young Practitioner; Glycerine; Mr. Moir, of Musselburgh, by Edinburgh; Dr. Lightfoot, of Arundel House, Fulham; Mr. Garlick, of Halifax; Mr. Stansfeld, of Halifax; Chairman and Secretaries of the Manchester Deputation of Provincial Surgeons; Mr. Russell Reynolds, of Leeds; A Friend in Dublin (with signature, but marked private;) An Astonished Student; Dr. Stower, of Brook-street; Mr. Churchill, of Colchester; Veritas.

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ORIGINAL LECTURES.

LECTURES

ON

DIGESTION, RESPIRATION, AND SECRETION.

GIVEN AT THE ROYAL INSTITUTION, TO THE MEMBERS, AND TO THE PUPILS OF ST. GEORGE'S HOSPITAL.

By H. BENCE JONES, M.D., F.R.S.,
Physician to St. George's Hospital.

(Continued from page 366.)

In my last lecture, gentlemen, I brought before you the different classes of substances which can be extracted from flesh. I showed you that flesh always contained, 1st, water; 2ndly, ashes; 3rdly, non-albuminous organic matters, as fatty matter and a peculiar sugar; and, 4thly, the nitrogenous organic substances. In this last class I showed you that there was a fibrous matter, which has been called the fibrine of flesh; that there was albuminous matter, which was precipitable neither by heat nor by acid; but by heat and acid together, after cooling, a precipitate was produced; and I pointed out some substances which appeared to be the result of a change in the muscle, of which the most interesting was kreatin. I alluded also to an alkaline body, which could be formed from kreatin—kreatinine, a specimen of which is now before you, and can be viewed after the lecture. It is a substance which exists in the muscle, and as I shall have occasion to tell you, it exists also in urine, in which it was detected before it was found in muscle. It can be formed by acting upon kreatin by means of strong acids, by taking away two equivalents of water. This nitrogenous body is probably one of the first products of those changes which the muscle undergoes in the human body.

It is my intention to-day to take milk as my subject, and I do this because it is the universal food—a food which requires no cookery; and I shall endeavour to show you that in milk the mechanical and chemical laws which apply in the case of vegetable and animal food, are fulfilled to the greatest possible extent. I shall point out to you, first, regarding the chemical law, that every substance which exists in the human body exists also in milk, that the different elements, the proximate constituents of the milk, are closely allied to, in fact are identical with, those which exist in the body generally. I shall show you this certain fact, that in milk the four classes of substances exist which I have pointed out to you so frequently, viz., nitrogenous and non-nitrogenous organic substances, mineral matter, and also water. The nitrogenous matter has been called *casein*. It is closely related to the albuminous substance, and contains carbon, hydrogen, oxygen, nitrogen, sulphur. Casein C_{680} H_{269} N_{89} O_{220} S_7 P none.

The non-nitrogenous bodies are milk, sugar, and butter, and the ashes represent the mineral matters.

The proportions of these substances present in the milk, you observe are by no means constant.

In 1000 *Parts of Human Milk.*

	Colostrum.	4th day.	9th day.	12th day.
Casein . .	40·0	35·3	37·0	29·0
Milk-sugar .	70·9	41·0	43·0	32·0
Butter . .	50·0	43·0	35·0	33·0
Ash . .	8·1	2·1	1·7	1·9
Sum of Solids	172·0	120·0	114·0	94·0
Water . .	828·0	880·0	886·0	906·0

The table before you refers to milk taken from the same person at different periods, from the commencement of lactation. The milk taken at one time differs very considerably (that is, the quantities of the ingredients, not the actual qualities, differ considerably) from that taken at another period. The extent of the variations is represented by the following numbers:—

Human Milk.

	Maxima.	Minima.
Casein . . .	45·2	19·6
Sugar . . .	62·4	39·2
Butter . . .	54·0	8·0
Ash . . .	2·7	1·6
Sum of Solids . .	138·6	86·0
Water . . .	861·4	914·0

You see how much the water in the milk, even in a state of health, may vary, forming occasionally as much as 914 parts out of 1000. And sometimes there is as little of the albuminous substance (casein) as 19½ parts out of 1000. The salts vary very considerably and so do the other constituents. But not only does the milk vary in the same person, but it varies according to the constitution of the individual. The milk may be richer or poorer, according as the person is of a fair or dark complexion. This analysis has been lately made:—

	Blonde.		Brunette.	
Casein . . .	10.0 to	9·5	16·2 to	17·0
Sugar . . .	58·5	64·0	71·2	70·0
Butter . . .	35·5	40·5	54·8	56·3
Salts . . .	4·0	4·5	4·5	4·5
Sum of Solids	108·0	118·5	146·7	147·0
Water . . .	892.0	881·5	853·3	853·0

Moreover, it is also most certain that at no two moments of the day is the milk secreted precisely the same in composition. Not only does the state of the digestion and the substances eaten affect the composition of the milk, but states of the mind can produce an effect upon the milk. Sir Astley Cooper, in his work on the Anatomy of the Breast, p. 145, refers to cases in which mental emotions have produced most remarkable effects upon the constitution of milk; such, indeed, as to make this most nutritious substance a deadly poison.

We will now take each of the ingredients of milk separately, and examine their composition. I must first show you that these substances are present, and how you can obtain them.

First, as regards *water*. This is present to a considerable amount in milk, and can be evaporated by heat. (Various preparations of milk were exhibited, from which the water had been taken by different methods.) The quantity of water varies from 861 to 914 parts out of 1000. The specific gravity varies in the same proportion, being as low as 1018, and as high as 1045.

Secondly, there are *salts* present. If milk be simply burned, the ashes of milk are obtained. (Specimens exhibited.) The quantity of these ashes varies from 1·6 to 2·7 parts in 1000. These ashes contain certain inorganic constituents, as shown in this diagram:—

Inorganic Constituents of Milk in 1000 *Parts.*

Phosphate of Lime . .	2·31	3·44
„ Magnesia . .	0·42	0·64
„ Iron . .	0·07	0·07
Chloride of Potassium . .	1·44	1·83
„ Sodium . .	0·24	0·34
Soda	0.42	0·45
	4·90	6·77

If you compare the ashes of milk with the ashes of blood or flesh, you will find that very nearly the same substances are present in the one as in the other, though in different proportions.

The most remarkable salt which exists in the milk (and it is most worthy of your attention) is *phosphate of lime*. No less than 3½ parts of phosphate of lime exist in 1000 parts of milk. This phosphate of lime is, without doubt, of the utmost importance to the growth of the young animal. Without it, the growth of the bones could not take place; for, as I have already mentioned, there is no phosphorus to be found in the albuminous substance of milk. The whole supply of phosphorus, which forms so important an ingredient of the brain and the bones, must come from the phosphate of lime, magnesia, and iron, of which the ashes of the milk are chiefly composed.

In the third class of substances is *butter*, which is found in such large quantities in milk. This butter is not, as the name

implies, by any means a simple body, but, on the contrary, a very compound body. It is very variable indeed in its composition. Bromeis, a German chemist, who has worked most on these fatty matters, has given the numbers before you, as representing the different fatty substances existing in butter :—

In 100 *Parts of Butter.*

Margarine	68
Oleine	30
Peculiar Fats	2
	100

This is merely the general formula; the numbers vary in different, indeed in *all* specimens. This is merely given as a general view, as coming nearest to the truth. Of this substance, which is margarine, we have present 68 parts; of this, which is oleine, 30 parts; and 2 parts of peculiar fatty matter. You see here specimens of the volatile acids obtained from the peculiar fatty matters existing in butter. These volatile acids I must enlarge upon in my next lecture, for they form some of the most interesting substances which occur in the changes which take place in the different animal substances. They are represented in this diagram—

Volatile Acids of Butter.

C_8 H_8 O_4	Butyric Acid	C_{14} H_{14} O_4	Œnanthylic
C_{10} H_{10} O_4	Valerianic	C_{16} H_{16} O_4	Caprilic
C_{12} H_{12} O_4	Capronic	C_{20} H_{20} O_4	Caprinic.

with butyric acid, which closely resembles the valerianic acid. Butter contains margarine, which, when saponified, gives margaric acid; oleine, which furnishes oleic acid; and the peculiar fatty matter, when saponified, gives volatile acids. No less than six have been obtained and analysed; and these, as I shall show you, can be produced by submitting animal substances to different agents, which in my next lecture will be brought before you. In the air, the constituents of the butter easily become converted from the state of oleine and margarine into oleic and margaric acids. Still more readily do these volatile acids arise from butter. This change takes place when the butter begins to be rancid; and butter can be kept but a very short time without showing an acid reaction. A small quantity of casein, which remains adherent to the butter, acts on it as a ferment, and makes it undergo a rapid change, ending in that foul and peculiar smelling substance which you know as rancid, stinking butter. I shall much more closely examine each of these substances in the lecture on the changes which take place in the non-nitrogenous substances when they are submitted to different agents out of the body. I refer to them now to show you that they exist in milk, and to prepare you for a future lecture.

It is said that the mode in which the milking has been made has a remarkable effect upon the quantity of butter in different portions of the milk. This is a matter of considerable interest to those who have to make determinations of the quantity of butter existing in different specimens of milk. It has been found, that if the milking takes place in divided portions,—if it is taken, for instance, in a number of glasses, while the whole of the milk would contain 4½ per cent. of butter, the last portion taken off, say the sixth, the eighth, or the tenth glass, would contain 7½ parts of butter; the one being drawn within perhaps a very few minutes only of the other. Thus the last portion would be nearly twice as rich in butter as the first portion. It was thought, in the case of the cow and the donkey, that the rising of the cream might account for this; the milk being always drawn off from the lowest part the cream would rise to the highest part and be drawn last, and thus that portion would, of course, be richest; but it is found that, when this same fractional milking is carried on in the human subject, the same result is obtained. This is a fact very lately observed, and as yet no satisfactory explanation can be given of it. In the human subject the mechanical rise of the cream is evidently not the cause, and such an explanation will not there apply. This is an interesting fact, for which we are indebted to M. Reiset; and hence if you have to analyse only the first portion of any milking you may find it poor, whilst if you finish the milking you may find it as rich in butter as you could expect. It has been found that the quantity of fatty substances taken in the food has a remarkable effect upon the quantity of butter. For this we are indebted to Dr. Playfair. He finds especially that, when vegetable food is taken, (which contains much fatty matter, as I have shown you,) the milk is richer than when food which contains but little fatty matter is taken. M. Boussingault, one of the first French chemists, has not fully confirmed Dr. Playfair's conclusions. M. Dumas, however, has found, in the case of dogs, that on vegetable food their milk yields more butter than when they are fed on animal food only.

Precisely the same thing is found as regards the *sugar of milk*, which is the next constituent I shall mention, and which is found in larger quantities in the milk of dogs, for instance, when they feed on vegetable than on animal food. Yet living on animal food does not entirely prevent sugar of milk appearing in the milk. This was established in Professor Scheerer's laboratory, in 1845, and since then in Professor Liebig's. To this fact I shall have occasion to recur in my lecture on Diabetes; it is of very considerable interest in the theory of that disease, that sugar of milk should be formed when an animal is kept upon meat only. When no vegetable substance whatever has been given to the animal for months, sugar of milk always can be found in milk. Sugar of milk differs from the other sugars, in the quantity of water it contains; and it differs in the changes it undergoes when acted upon by various agents. It does not give the same acids that other sugars give. It gives lactic acid, and the very peculiar acid—mucic acid, or saccho-lactic acid, as it has also been called, and ultimately it gives oxalic acid also. I have here some beautiful specimens of these acids and of their salts. That sugar of milk exists in milk is proved without difficulty. I have here some milk which has been boiled with sulphate of magnesia. The excess of magnesia has been precipitated by potash, and the clear fluid, on the addition of a little sulphate of copper and strong caustic potash, assumes a beautiful blue colour. By boiling this a few moments, a reduction of the oxide of copper takes place, and you may notice the formation of a beautiful red precipitate, which is Trommer's test for sugar. (Experiment.)

In the fourth class of substances is the *casein* of milk; it is perhaps the most characteristic principle. The sugar of milk is very characteristic, but casein is still more so. It forms the chief constituent of cheese. On analysis, casein closely approximates to the other albuminous or albuminoid substances. According to Dumas and to Bensch, after animal diet milk contains much more casein than after vegetable food. The casein is probably distinct from the envelope of the milk globules. The milk consists of a liquid, with certain white globules floating in it. The white matter is not fat alone, and it is not casein alone, as an easy experiment will show you. If I take this clear whey, and add acetic acid, which has the property of coagulating casein, milk casein is immediately precipitated. The fluid was perfectly free from milk-globules, but, as you see, it contained casein in solution. (Experiment.) The milk-globules consist of a highly-nitrogenous organic substance, enclosing the fatty matter, while the casein is a body represented by the analysis to which I have referred you. Whether it be a simple body, or a mixture of two or even three organic substances, is not decided. Let me say a few words on the tests for casein, by which it can be determined and distinguished from albumen; for example, the simplest test is acetic acid. But I shall have occasion to show, in a future lecture, that if albumen be boiled with alkali, and made, if I may so speak, into an albuminate of potash or soda, the albumen will not be precipitated by heat until acetic acid is added. Boiled alkaline solutions of albumen have the same re-action as milk with acetic acid. Milk is prevented from coagulating by heat, (you well know it only forms a scum when heated,) and this is caused by the conjunction of the alkali of the milk with the casein. The moment I add acetic acid to the milk, the casein is separated from the alkali which held it in solution. The same action occurs with albumen, if treated with alkali; therefore I cannot give you this as being the surest test for casein. A test which is liable to no fallacy or uncertainty is the action of rennet on fluids containing casein. The mucous membrane of the inner stomach of the calf is washed and dried, as you see here. If I take one part of the membrane and place it in eighteen hundred parts of skimmed milk, and gradually heat it to a temperature of 122°, or thereabouts, complete coagulation ensues; or, if I make an infusion of the stomach, and mix it with the milk, after the infusion has been left standing a short time the separation takes place, as you see here. (Experiment.) This action of the membrane of the stomach of the calf is the most characteristic test for casein.

It is said that this membrane sets up a change in the milk-sugar, and causes it to be converted into lactic acid, which separates the casein; but in opposition to this theory, this fact is given, that milk that is alkaline and remains alkaline, and does not become acid, can be coagulated by rennet. As yet, the full explanation of this action is not known to us. A change of milk-sugar into lactic acid constantly takes place, but this is not the whole explanation; something further is wanting.

Such, then, is the chemical composition of milk. The comparison of human milk with that of animals is for a moment worthy your attention. Human milk is found to be more alkaline, and less easily becomes acid. It is also more sweet; it contains more oleine in the butter; it contains casein which is less perfectly coagulable by rennet, and the coagulum is not so hard and firm as the coagulum of cow's milk. The milk of the cow contains much more salts, less sugar, more butter, and more casein than human milk, whilst ass's milk becomes more easily acid, contains more sugar, much less water, and much less casein. The cause of many of these differences is probably the presence of a greater proportion of alkali in human milk than in that of other animals. The differences in the coagulation by acid no doubt have great effect on the digestion of the milk, because the fulfilment of mechanical law, requiring a fine state of division, is influenced by the degree of the coagulability of the milk. Human milk is not nearly so coagulable as other milk; it contains more alkali, and is not so easily precipitable by acids. In many specimens, indeed, of human milk, on the addition of acetic acid, no coagulation whatever occurs until the milk is boiled; then the acid will precipitate the casein as it would in cow's milk or ass's milk.

We have seen that milk contains albuminous organic substances—substances closely related in composition to albumen It possibly contains more than I have mentioned; for it is very probable that casein, which has been analyzed as a single body, may be a complex body. The numbers given in the diagram as the formula for casein are useful as long as you are not misled by them; the formula is doubtful, and is changing every year as investigation proceeds. The milk, then, has one, or two, or more albuminous substances; it has also at least two non-nitrogenous organic substances,—milk-sugar and fatty matter; it has the salts which can be converted into ashes, containing nearly the same elements that exist in flesh; and lastly, it contains water. Thus much, then, for the fulfilment of the law, that all the substances present in the food are present in the animal. The substances in the milk are closely related to, and almost identical with, the substances existing in the animal, with the substances existing in the flesh, and with those in the wheat, of which I spoke in my first lecture.

I now come to the mechanical law. How is this satisfied? The constituents of the milk exist, capable of the finest state of division. Every ingredient, except the milk globules, is in solution. That these milk globules do not consist simply of fatty matter I may now perhaps show you by the following experiments. If we treat milk with ether it will not become clear; the ether, you see, will take up but very little butter. Of course there is a dilution to the extent to which ether is added, but no clearness is produced, no distinct action upon the fatty constituent of the milk, even if agitated for a long time, unless, indeed, you agitate it so strongly as to break the envelopes mechanically, which is done in churning. Unless you thus agitate, so as to rupture mechanically the envelopes, you get no solution of the butter; there is something present which hinders the butter being acted upon by ether in the way that churned butter would be dissolved. This enveloping matter, I have told you, is an albuminoid substance; therefore we know it will be acted upon by caustic potash. (Experiment.) I will use solid potash instead of liquor potassæ, which would render the experiment a little less conclusive, by introducing another agent, namely, water, which might perhaps be supposed to have some action. I take some milk, and shake it for a few moments with caustic potash; this substance so acts upon the envelopes of the globules, that they will not shield the butter from being acted upon by ether. The ether is then added, and the liquid becomes nearly clear, in consequence of the fatty matter being dissolved. There will be some small residue left undissolved, which results from the action of the ether, and not from the caustic potash. In these two tubes, which show you the milk acted on by ether with and without caustic potash, the contrast is, as you see, most remarkable; the one tube is transparent, whilst the other is as milky as before. If I leave the liquid standing for some time, a remarkable change takes place in the tube containing the alkali. A red fluid is produced; this colour is the result of the action of the caustic potash upon the milk sugar. This is, in fact, one of the tests for sugar, and is known by the name of Moore's test. Having thus shown you the composition of the milk globules, we may return to their solution. I have said that every body in the milk exists in a state most fit for absorption except the globules. The milk globules alone are unfit to be taken at once into the human body. By the remarkable property of the mucous membrane of the stomach, which I have mentioned to you, the casein is coagulated, and the sugar of milk is changed into lactic acid, and by the acid the envelopes are ultimately dissolved. This is the process which takes place in the human stomach when milk is taken into it; the milk-sugar is changed into lactic acid, the casein is coagulated, ultimately the milk globules and the casein are redissolved, and form a perfect solution, which can be taken up by the blood-vessels, &c. Whether any change of composition takes place in the casein and milk globules when they are redissolved is not determined, thought it is highly probable that some slight change does occur. The formation of lactic acid from sugar was probably designed for some other purpose than the precipitation and re-solution of casein. One cannot see any reason why the casein which was in solution should be precipitated and dissolved again; though there may be some reason, as yet unknown to us. It appears to me most probable that the formation of lactic acid takes place in the stomach, for the purpose of dissolving the envelopes of the milk globules, these being the only substances that do not exist in solution. The effect of the solution of the envelopes of the milk globules is, of course, the liberation of the butter. If the envelopes were not dissolved, it is probable the butter would remain incapable of solution. If lactic acid were not formed, the envelopes of the milk globules would not be dissolved, and the butter would not be set free. But we cannot have lactic acid in the stomach without the precipitation of casein: this is the necessary consequence of the formation of lactic acid. You may perhaps say, "What is the object to be gained by the fatty matter being surrounded by these envelopes?" It seems to me that the object attained is, the fulfilment most perfectly of the chemical law of digestion. By this means the most perfect intermixture of the different ingredients of the milk is effected. If no milk globules existed—if we had simply casein, butter, sugar, salts, and water, the butter would float on the surface; and, at one time, the young animal would get nothing but butter, and at another time it would get no butter at all. But, by the formation of milk globules, the butter is surrounded by an envelope, and it is thus prevented from rising to the surface; it remains so intimately intermixed with the milk, that not one drop of milk can be taken without containing a portion of butter. To dissolve this envelope, and to liberate this butter afterwards, lactic acid is formed. I see no other explanation (there may be others) of the state in which these milk globules exist.

Thus, then, whether I take milk, or flesh, or wheat, in each I find the same four classes of substances present. All the substances that exist in man are present in his food. To fulfil the mechanical law, the ingredients of the food of infants are most easily brought to a fine state of division by a chemical action alone. No mechanical action whatever, as far as we know, except the mere muscular motion of the stomach, is introduced to effect a solution of the food of infants. In the adult, the mechanical force of the teeth is added to render the chemical action on the denser food more easy. The teeth are given for the purpose of reducing the food to a fine state of division. In the food of infants, the solution is simply chemical—this is the action which takes place in the stomach. Milk has been called "the type of food." As regards its chemical composition, the chief difference between it and other alimentary substances is in the quantity of water which it contains; so that, chemically speaking, I do not consider milk by any means the peculiar type of food; it is not more so than flesh or wheat. But, as regards the mechanical law, milk is, indeed, the type of food, from its capability of being finely divided, and from its affording nourishment to the infant who possesses no teeth. For its mechanical properties, not for its chemical composition, milk is the only food intended for use until the teeth

are enabled, by mechanical action, to assist in the subdivision of the flesh or the corn, which, as you have already seen, contain the same chemical substances as the milk.

I have thus brought before you the three chief substances employed as food,—milk, flesh, and wheat, or bread. I might have taken any other vegetable or animal food, potatoes or fish, rice or eggs, and I should have arrived at the same results. Before entering into the action of the different secretions of the human body upon these different kinds of food, I purpose, in my next lecture, taking the nitrogenous, and, in the following one, the non-nitrogenous organic substances, and showing you what changes they can undergo out of the body by chemical action; thus, and thus only, I believe, will you be enabled to understand what I shall have to say in future lectures as to the changes effected by the saliva, the pancreatic fluid, the bile, and the gastric juice upon the different substances of which our food consists. The next two lectures will, I fear, be by no means so interesting as those which have gone before, because they will consist of duller and, perhaps, more difficult chemical details; and yet, unless I can make clear to you the changes which take place *out of* the body, you have not the slightest chance of understanding the changes which take place when the food is introduced *into* the stomach of man.

ORIGINAL COMMUNICATIONS.

REMARKS
ON THE
ETIOLOGY OF PHTHISIS.

By EDWARD SMITH, M.D., LL.B., B.A.,
University of London,
Lecturer on Botany at the Charing-cross Hospital Medical School, &c.

Were any apology or explanation necessary, on introducing to the notice of the Profession some remarks on the Etiology of Phthisis, I would state in extenuation, if not in justification, that various questions in reference to this subject remain to the present day unanswered, from the absence of statistical information sufficiently comprehensive and accurate. M. Louis introduces his chapter on the Causation of Phthisis with the following observations (a):—"Nous voici parvenus ou point le plus important de l'histoire de la phthisie et malheureusement le moins bien etudié jusqu'ici. Non certes que les assertions manquent au sujet des causes qui disposent de longue main à cette maladie, ou qui en decident l'explosion; mais les faits constatés rigoureusement; ceux qui peuvent servir à l'avancement de la science manquent sur presque tous les points." So little, indeed, is known on this subject, and so greatly do writers disagree as to the value which ought to be assigned to those facts which are believed to be known, that M. Louis himself does not write authoritatively on the influence of either age, sex, temperament, hereditary predisposition, or occupation; and these at least still remain open questions.

Until the erection of the office of the Registrar-General in this country, no field was fairly open to inquiry wider than that presented by isolated general or special hospitals, if we except the districts included within the Bills of Mortality, the army and navy, and perhaps a very few cities on the continent of Europe, and in the eastern of the United States of America. The discordant results which have been obtained from inquiries instituted in individual hospitals show that the number of cases observed therein were too few to warrant the deduction of general laws from the observations made respecting them; and, moreover, certain most important questions, such as the absolute liability of the population to phthisis, could not be answered by such inquiries. Great credit is due to many physicians, for the diligence and care with which they have prosecuted these researches; and the most rational and valuable effort of this nature which has been made, in this country at least, is that embodied in the Report of the Medical Officers of the Hospital for Consumption for 1849, to which we shall have frequent occasion to refer. A very casual acquaintance with the returns made within the Bills of Mortality, and the mode by which they were compiled, will suffice to prove that they were not sufficiently comprehensive and accurate to supply the desiderata; but the continuation of them, in the form of the weekly returns issued by the Registrar-General, show with great accuracy the number of cases occurring at three periods of life in each week in the year, contrasted with the returns of similar weeks in ten previous years.

Under the intelligent direction of Sir William Burnett and Sir James Macgrigor, the great resources of the army and navy have at length been rendered amenable to this investigation. Previous to 1835, Sir James Clarke consulted the records of these institutions, for the purpose of ascertaining the absolute mortality from phthisis and its relative ratio to that portion of the population, and the influence which climate exercises over this disease. In the years 1839 and 1840, Colonel Tullock very opportunely published, by the authority of Parliament, two admirable Reports, showing the mortality from phthisis (with other diseases) in several selected regiments stationed in various parts of the British dominions. Dr. Wilson prepared two similar Reports in 1840 and 1841, and Dr. Bryson one Report, in 1849, under the direction of the Admiralty, having for their object to show the mortality amongst the officers and crews employed on various stations in Her Majesty's men-of-war and other vessels.

These Reports are limited to an exposition of the absolute and relative mortality of the individuals in various climates; no mention being made of the age of the sufferers or the duration of the disease; and the male sex being the one which, from necessity, solely occupied the attention.

But it is to the treasures contained in the various excellent Reports published by the authority of the Registrar-General (to whom and to Mr. Farr the Profession and the public are greatly indebted) that we must turn, in order to gain the information necessary to the solution of many pending difficulties.

It is true, that the value of the Reports published during the earlier years is lessened by the careless manner in which the cause of death was returned by medical men, and the large proportion of practitioners who, for various reasons, refused to give returns; but the later years have witnessed an improvement in this respect—a good nosological arrangement having been somewhat generally adopted, and nearly the whole of the London practitioners more or less cheerfully adding this excellent service to the many rendered by them to the common weal. Yet even now many provincial medical men refuse to certify the cause of death; and, although much effort has been made by those in authority to obviate this inconvenience, the number of such persons does not very materially diminish. As young men will, ere long, take the place of these gentlemen, it is more than probable that time will solve the difficulty; but, since this duty is one from the performance of which the medical man cannot look for professional advantage, (unlike the gratuitous attendance to patients at hospitals and infirmaries,) and since the current of professional public opinion is running counter to the extension of gratuitous labour, it might be a wiser course for the Legislature to allow the trifling sum (not trifling in the aggregate) of 1s. for each certificate, as an acknowledgment of the service thus rendered.

Although these reports have been circulated with judicious liberality by the Registrar-General, we are, perhaps, not entitled to assume that a majority of the members of the Profession have inspected a part, much less the whole of the series; and it may not be without utility to state in detail, but briefly, the many invaluable tables on the mortality from phthisis contained in them.

In the first Report, we find the number of deaths from phthisis in England and Wales, in 1837, and also in each of the twenty-five divisions into which England and Wales were then divided by the Registrar-General, with the proportion per cent. to the total general mortality, and the proportion to one million persons living. The numbers registered in the metropolis are contrasted with those which occurred in five selected counties, which have a population very nearly equal to that of the London district. In every table the sexes are separated.

The second Report presents to us a continuation of each of the tables mentioned in the first Report, and comprehends

(a) Louis' Recherches sur la Phthisie.—Page 574.

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the deaths which occurred in 1838, with a comparison of the deaths noted in the metropolis with those in certain town and county districts, and a further comparison of certain city and county districts among themselves. We also find the numbers registered in the eleven newly-arranged divisions, with a separation of the sexes, and the mortality per cent. as compared with the population, and also the numbers in the various English and Welch districts, the sexes being combined. A new feature is introduced into the arrangement of the deaths occurring in the metropolis and in the districts of Cornwall and Devonshire, viz., the mention of the quarters of the year in which they were registered. The relative mortality of males and females in four large towns, viz., Birmingham, London, Liverpool, and Manchester, with the per centage in each sex to the population living, is also given; and we are favoured with a reprint of the weekly tables issued from Jan. 11 to May 23, 1840.

The third Report introduces to us a valuable addition to our statistical tables, in the record of the ages at which the deaths occurred in the London hospitals in 1839, and in Manchester, Liverpool, and Birmingham; those observed in the two sexes being stated separately. The total number of cases which occurred in England and Wales, with the proportion to one million living, and the numbers observed in each of the twenty-five divisions, are also given, with the sexes separated, and in each of the districts and the eleven divisions with the sexes combined. The contrast is also continued into 1838 and 1839 of the cases registered in the metropolis and five selected counties, and also of those in the city and county districts; and, lastly, those in the metropolis, cities, and counties. The summary of the weekly tables for 1840, and the reprint of those issued between May 1840 and 1841, are also given.

We are not presented with any striking feature in the 4th Report, beyond a continuation of many of the tables already mentioned. The mortality in the three years 1838, 1839, and 1840, for all England and Wales, is contrasted; the sexes being combined, and the proportion to one million being given.

The deaths in 1840 are recorded in the eleven divisions, and in the districts, the sexes being undistinguished; and in ten divisions and the counties, the sexes being separate; and the proportion per cent. in those occurring in the ten divisions.

The age and sex of those dying in the London hospitals are again given, and also the number of deaths which took place in the metropolis at three periods of life, with the proportion to one million living. The summary and reprints of the weekly returns are continued.

The improvement which the 5th Report presents to us is that of the separation of the cases which occurred in the two sexes in every district in England and Wales in 1841, in addition to those registered in counties and in ten divisions. The number of those who died in all England and Wales is given, the sexes being combined. We also observe the cases registered in the metropolis in 1842, with the sexes separate, and in each quarter of the year, and under fourteen periods of life. The deaths in twenty-four town districts, and in the metropolis at various ages, and in the two sexes, are given. Three tables have also been compiled to show the number of deaths which occurred in London out of 100,000 persons born, of both sexes combined, with 51,023 males and 48,977 females at fourteen periods of life. An advantageous comparison is effected of the deaths registered in England and Wales in 1838, 1839, 1840, and 1841, and the proportion to one million living, and also of those occurring in certain selected town and country districts; and Mr. Farr very ably elucidates the causes of the high mortality observed in towns. The total cases noted in the metropolitan districts in 1840 and 1841 are given at three periods of life, with the proportion to one million living.

The 6th Report contains only the continuation of the very valuable paper mentioned in the 5th Report, and adapted to 1842, and shows the number of cases which occurred in the two sexes, in the ten divisions, the counties, and the districts of England. The *resumé* of the whole for England and Wales and the eleven divisions does not notice the distinction of sex.

We observe three valuable tables in the 7th Report. The first indicates the number of deaths which occurred in the two sexes, and at fourteen periods of life, in the metropolitan district in 1843. The second contrasts the mortality in England, without distinction of sex, in the years 1838, 1839, 1840, 1841, and 1842, and the proportion to one million living. The third is restricted to the exhibition of the cases which were registered in the county of Kent, in the two sexes, and at twenty-five periods of life.

The construction of the last-mentioned table is adopted in the 8th Report in exhibiting the number of cases which occurred in London in 1845; and in the 9th Report we have a most valuable comparison of the mortality in the metropolis in the four quarters in each of the years 1840 to 1847, distinguishing the sexes.

Thus, in the Reports published by the Registrar-General, we have, for the first time, a large mass of authentic statistical information, which this country may, with great reason, regard with pride, since, in no other country could it have been collected in the short period which has elapsed since the office was established, and in no other country is any adequate effort made to accomplish a similar object. This information certainly suffices to set at rest many heretofore agitated questions. The absolute and relative ratios of mortality are determined for all England, and for each large space denominated a district; and amidst the unpublished documents in the Register Office may be found the materials whence may be readily computed the ratio of mortality for every sub-district and every parish in our large towns. The influence of sex is also determined, so far as statistics may determine it, for England and Wales, the divisions, counties, and districts, with a few of the more populous cities and towns; and that of age is demonstrated in the metropolitan districts, the county of Kent, and the London hospitals, and three large towns. The exhibition of the effects of season has hitherto been restricted to London. The desiderata now most urgently claiming attention are the effects of age and season upon the mortality in England and Wales, the divisions, counties and districts.

It is right also to mention a valuable paper, published by Dr. Duncan in the *Dublin Quarterly Journal* for 1849, in which he makes use of the tables published by the Registrar-General, for the purpose of demonstrating the influence of sex in the induction of phthisis. The mortuary tables, compiled by Mr. Wilde from the returns of the Irish census for 1841, contain much invaluable information respecting the inroads of this disease in the sister isle.

Being desirous of ascertaining yet more fully the influence which age, sex, season, climate, locality, and trade, respectively exercise upon each other, and in the origination or development and the duration of phthisis, the Registrar-General very courteously and promptly permitted me to consult the original registers, and the abstracts of them which have been made under his authority, and to take copies and make such further abstracts from them as I might deem fit. I subsequently ascertained that a table had been prepared under the immediate direction of Mr. Farr, to show the mortality from phthisis at different ages, and in the two sexes, for various parts of England, in 1847, the which is to form a part of the forthcoming Report. The great expense of printing such a mass of figures, precludes the possibility of publishing the details of individual districts and sub-districts, and therefore I have used the privilege accorded to me in making copies of a large portion of them.

This very valuable table had not been extended to the districts and sub-districts of the London divisions, so that I found it necessary, in order to complete the inquiry, to abstract these portions for myself. For very sufficient reasons, no attempt had been made to show the occupation of the deceased parties, or the duration of the disease in the two sexes, and at various ages, or the seasons in which the deaths occurred, except for the metropolis, as before mentioned, and therefore I deemed it prudent to abstract the occupation with the age, sex, season, and duration of the disease, for the districts and sub-districts of London, restricting myself, however, to the deaths which occurred in 1847. For the kindness of the Registrar-General and of Mr. Farr I feel myself under the deepest obligation.

It is intended, in the following papers, to give the result of this investigation in a series of tables, so compiled that they shall rather be simple than comprehensive, and so arranged that the most tangible fact shall be readily evident. It is not intended to enlarge them by the introduction of much connecting or explanatory matter; but the published

opinions of a very few of the more distinguished writers upon this subject will be prefixed under each head. The ratio of mortality will be indicated by reference to the ascertained population of each place, which is deemed to be a less faulty standard than that afforded by a reference to the total general mortality; and the ratio will express the proportion which the total deaths bear to the whole population as one in a varying number, rather than the more elegant but less readily appreciated mode of stating the per centage. Great care has been taken to avoid error; but it may not be presumed that so many millions of figures have been transcribed, and so many thousand computations made with perfect accuracy.

FREQUENCY OF PHTHISIS.

Mr. Farr observes, in the first Report of the Registrar-General, that the ratio of mortality from phthisis, in 1837, was 20 per cent.; and in the second Report he affirms that, in 1838 it was 18 per cent. of the total general mortality.

The following table has been constructed from the returns published in the sixth Report, to show the ratio of mortality in England, and in the eleven divisions, in 1842; the divisions being arranged in the order of their ratios:—

Table 1.

Order.	Divisions.	Ratio of Mortality to the Population in 1841.
1.	North Western	1 in 214
2.	West Midland	— 257
3.	Eastern	— 256
4.	North Midland	— 261
5.	South Midland	— 264
	ENGLAND	— 268
6.	London	— 273
7.	York	— 281
8.	South Eastern	— 295
9.	South Western	— 293
10.	Welch	— 298
11.	Northern	— 309

The total number of deaths from phthisis in England and Wales, as reported in 1847, is 53317, giving a ratio of 1 in 324·4 of the population existing at that period. This ratio varies greatly in the eleven divisions of England and Wales, the lowest mortality occurring in the south-western, and the highest in the north-western districts. The divisions are arranged in the following table, in the order of their ratios of mortality to the computed population at the end of 1847.

Table 2.

Order.	Divisions.	Counties included within the Divisions.	Ratio of Mortality to the Population of 1847.	Ratio of Mortality to the Population of 1841.	General Mortality in 1841.
1.	North Western	Cheshire, Lancashire	1 in 257	1 in 226	1 in 38·3
2.	London	Middlesex (part of), Surrey (part of), Kent	— 305	— 277	— 39·7
3.	Eastern	Essex, Norfolk, Suffolk	— 313	— 360	— 49·5
4.	Welch	North and South Wales	— 321	— 294	— 51·3
	ENGLAND		— 324·4	— 298·7	— 45·7
5.	York		— 331	— 303	— 45·8
6.	Northern	Durham, Northumberland, Cumberland, Westmoreland.	— 339	— 312	— 47·4
7.	South Midland	Middlesex (part of), Hertford, Bucks, Oxford, Northampton, Hunts, Beds, Cambridge.	— 340	— 319	— 47 8
8.	North Midland	Leicester, Lincoln, Rutland, Notts, Derby	— 342	— 316	— 48·3
9.	West Midland	Gloucester, Hereford, Shropshire, Stafford, Worcester, Warwick.	— 347	— 318	— 45·7
10.	South Eastern	Surrey (part of), Kent, Hampshire, Sussex, Berks	— 351	— 328	— 51·2
11.	South Western	Wilts, Dorset, Devon, Cornwall, Somerset	— 388	— 371	— 51·1

In making the corrections for the increase of population to the end of 1847, it has been deemed sufficient for our purpose to add to the Census returns of 1841, the rate of increase observed to have occurred amongst females from 1831 to 1841.(a) These corrections have not been carried further than for all England and the eleven divisions; and, consequently, the ratio of mortality in the counties, districts, and subdistricts is computed upon the Census of 1841; but, in order to render easy the comparison of the divisions with the counties and districts, the ratio of mortality in the divisions, based upon the last-mentioned datum, is given in a parallel column. The column indicating the general mortality will assist in rendering yet more evident the degree of liability of the divisions to the inroads of phthisis.

The counties which evince any variation of note from the results just given in the divisions, indicate a less ratio of mortality than even the most favoured division.

Table 3.

Counties.	Ratio of Mortality to the Population in 1841.	General Mortality in 1841.
Rutland	1 in 392	1 in 53·2
Lincoln	— 402	— 51·6
Surrey (part of), South Eastern Division.	— 409	— 55·4
Devon	— 440	— 53·2
North Riding	— 466	— 52·2
Middlesex (part of), South Mid. Division	— 489	— 51·4

I have selected for examination 105 districts, not in reference to any known liability to phthisis; but because they comprehend towns or other places which are well known, and in many instances have some peculiarity in respect of the occupations of the population residing within them.

(a) Ninth Report, p. 195.

In these districts the variation in the ratio of mortality is far greater than has hitherto been indicated. The following are selected to show the highest and lowest rates of mortality:—

Table 4.

Districts.	Ratio of Mortality to the Population in 1841.
West Derby, near Liverpool	1 in 168
Macclesfield	— 171
Salisbury	— 179
Liverpool	— 184
Wolstanton and Burslem (Potteries)	— 200
Grantham	— 400
Ashby de la Zouch	— 404
King's Norton, near Birmingham	— 409
Doncaster	— 415
South Shields	— 421
Great Yarmouth	— 438
Lincoln	— 451
Richmond, Yorks.	— 464

The lowest rate of mortality is found amongst males in the localities indicated in the following list:—

Table 5.

Districts.	Ratio of Mortality to the Population in 1841.
King's Norton	1 in 601
Witney	— 606
Gainsborough	— 616
Lincoln	— 644

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Of the London districts which I have examined, the lowest ratio is observed amongst *females* in the two following:—

Table 6.

Districts.	Ratio of Mortality to the Population in 1841.
City of London	1 in 635
Newington	— 724
The highest ratio occurs amongst *males* in St. Olave, Southwark	— 114

(To be continued.)

SOME ACCOUNT

OF THE

YELLOW FEVER EPIDEMY

BY WHICH

BRAZIL WAS INVADED IN THE LATTER PART OF THE YEAR 1849.

By J. O. M'WILLIAM, M.D., F.R.S., R.N.

Surgeon to the Honourable the Board of Customs.

Brazil occupies a great portion of South America, extending from 5° north to 32° 30 south latitude, and from 35° to 70° west longitude.

Viewed upon the map, Uruguay, La Plata, Bolivia, Peru, Columbia, and the other countries of this great continent, seem to form but a margin of variable width to the southern, western, and northern limits of the Brazilian territory.

The central and eastern portions of Brazil are occupied by high table lands, traversed by serrated mountain ranges. The lowlands to the northward comprehend the great plain of the Amazon, and the flat lands extending from it far to the eastward; a country among the richest in the world, and containing immense tracts of impenetrable forest. The lowlands to the southward include the greater part of that country lying south of a line drawn from eastward in a north-western direction, in the parallel of 29° south. Here there is a vast extent of pasture land, cut up in all directions by rivers, lakes, and marshes, and abounding with herds of cattle and horses.

The lowlands on the eastern side or seaboard of Brazil, vary in extent from 120 to 15 or 20 miles from the sea.

Following the course of its various indentations, the coast itself comprehends a distance of 4000 miles, which may be thus rapidly described. From its southern extremity, as far as 29° south, it is low and sandy; it then becomes rocky as far as the bay "Espirito Santo" in 20½° south; and from this to Bahia the coast is again low and level. Proceeding northward, and then bending to the westward, the coast is first of moderate height and then slopes away, low and marshy, as far as the Amazon.

The climate is cool and temperate between 28° and 33° south, and moderate within the southern tropic even as far as 15° south.

At Rio de Janeiro, in about 23° south, the medium heat is 74°. In summer, that is to say, during December, January, and February, the average heat at noon is 86° Fahr., the minimum 72. During winter, or the months of June, July, and August, the temperature at noon is 72°, minimum 59°. There are heavy falls of rain, with thunder and lightning, during the summer. As we proceed towards Bahia and Pernambuco, and further northward, the temperature increases; but, as these ports are more open to the winds, the heat at them is said to be less oppressive than at Rio de Janeiro. The seasons are of course earlier, and less distinctly marked, proportionately to their proximity to the equator.

Throughout the whole line of coast, the climate is of the most beautiful description, its general tranquillity being seldom disturbed by any more violent winds than the trades, or the daily land and sea breezes.

Mr. Cowper, the Consul at Pernambuco, a gentleman of great observation, who was not only present, but most actively and usefully engaged, during the prevalence of the recent yellow fever epidemy in that Province, says:—"The climate of the whole Brazilian tropic is moderate and varies very little. At Para, upon the line, the thermometer scarcely ever changes. During the day, in summer, it invariably stands at 86° Fahr., and during the night it falls, with the land breeze, to 65°, and sometimes to 60° Fahr. In the winter, the temperature during the day is 84° Fahr., at night 72°, owing to the absence of the land breeze in winter. This state of climate will apply to the whole coast, as far as Cape St. Roque, (lat. 5° south.) From thence to the southward of Bahia (lat. 13° south) the temperature is about two degrees lower; and Rio de Janeiro, although far south, (lat. 22°53 south,) owing to its geographical position, is said to be equally warm."

Notwithstanding the geographical position of Brazil, its great variety of climate, and its abounding in those elements which theoretically are supposed to induce the more aggravated forms of tropical disease, endemic disease, except in a mild form, is little known; from sweeping epidemic disease, of any kind, with the exception of small-pox—introduced by slavers(a)—the country has, until lately, been generally considered as wholly exempt.

It was, therefore, with astonishment not unmixed with doubt, that information of the existence of yellow fever in the city of Bahia, in the month of November, 1849, was received in the other parts of the empire; and it was not until the disease had extended to Pernambuco and Rio de Janeiro, that the people in general could be led to believe that so formidable an invader had arrived among them.

I shall now endeavour to trace the origin and progress of the yellow fever epidemy of Brazil, commencing with Bahia, and then taking up the other ports of the empire in the order, so far as my information enables me, according to which they were respectively invaded by the disease, prefacing the account of the fever at each place by some brief topographical remarks.

Bahia.—The town is situated in lat. 13° south, within the north-eastern boundary of the magnificent Bay of All Saints. The shore rises high, and is richly wooded. The lower town, the resort of the shipping and the great mart of trade, consists of long narrow streets, filthy, and badly paved. The upper town rises abruptly behind, is beautifully situated, and contains some fine buildings and private residences.

The population of Bahia is about 140,000; of whom one-third are whites; the same number are mulattoes, and the rest negroes.

The rocks belong to the granitic series. Darwin, in his "Narrative of the Voyages of the Adventure and Beagle," says, "throughout the coast of Brazil, and certainly for a considerable space inland, from the Rio Plata to Cape St. Roque, lat. 5° south, a distance of 2000 geographical miles, wherever solid rock appears, it belongs to the granitic formation."

I may also mention, that at a point near the city Darwin observed an appearance in the granitic rocks which has been discussed by Humboldt, who states that "at the cataracts of the great rivers Oroonoko, Nile, and Congo, the syenitic rocks are coated by a black substance, and look as polished with plumbago." It is a curious fact, that the Indians, and even the Missionaries of the Oroonoko, connect the unhealthiness of the villages round the cataracts with those rocks which they describe as carbonized or burned by the rays of the sun. They carefully avoid sleeping near these black rocks, which they imagine are fertile sources of the "calentura" or fever. Their insalubrity is so proverbial, that villages are not built in such localities, if space elsewhere can be found.

The insalubrity of Hong-kong has been by some connected with the granite rocks which abound in that colony.

Bahia had for several months enjoyed an immunity from all diseases except those common ailments incident to every such community, when, on the 30th September, 1849, the American brig Brazil arrived at that port, her papers said from New Orleans, but, as was afterwards ascertained,

(a) Mr. Cowper doubts that the introduction of small-pox is due to the slavers, for from the earliest times the Indians are said to have suffered from this disease. Mr. Cowper informs me of the curious fact, that hydrophobia was unknown in Brazil until within the last few years; but that it is now as common and as fatal as in Europe, and is attributed by the Brazilians to the importation of foreign dogs.

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actually last from the Havannah. She had lost two men on the passage from fever, attended with black vomit; but, as their deaths were not reported to the authorities, the vessel was not placed in quarantine. The circumstance of admitting to immediate pratique a vessel from New Orleans, the very focus, as it was said, of yellow fever, while quarantine was being rigorously enforced upon all vessels coming from European ports where cholera prevailed, was much discussed by the people in the town, and even became the subject of comment in the public prints.

I have already said that the Brazil arrived on the 30th of September. It is of importance also to state, that we have no account of any case of yellow fever occurring, either in the town or in the harbour, earlier than the 3rd of November. On that day, Dr. Paterson, one of the chief medical men of the place, was called to his first two cases of yellow fever. "One of them was a Brazilian boy, living over the American store, frequented by the captain of the Brazil. He had been ill," says the Doctor, "for some days prior to my visit, and on the afternoon of the 3rd he had black vomit, and died within a few hours." On the same day, Dr. Paterson was also called to an Englishman who had long resided in the country, and who had had frequent communication with the captain of the Brazil. During the convalescence of this, the second patient, fell ill the third case,—a young man, recently from Europe, living in the same house, and still more intimate with the captain. At the end of nine days he died of black vomit. Dr. Paterson adds: "One of the first fatal cases, and immediately succeeding those of my own, was the American Consul, also not long in the Brazils, and who constantly associated with the captain of the Brazil, and with him frequented the house of my second and third patients." He continues: "I could thus go on through a considerable number of cases, in the early part of the epidemy, tracing out the transmission of the disease from one person to another; as the number of foci of infection increases, the task would of course become the more difficult."

I have just invited attention to the importance of there being no account of any case of yellow fever on shore before that of the Brazilian boy, seen by Dr. John Paterson on the third of November. But since this paper was written, I have heard from Dr. Paterson's brother, Dr. Alexander Paterson, surgeon of the British Hospital, Bahia, and now in this country, that the case of the Brazilian boy, although his brother's first case, was not the first case in the town. Dr. Alexander Paterson "ascertained beyond doubt" that the Brazil took in several Spanish passengers at the Havannah, which, on landing, took up their abode chiefly in that part of the town of Bahia called "Santa Barbara;" and that in this very district yellow fever broke out within three weeks after the Brazil's arrival: but its occurrence was carefully and, for a long time, successfully concealed by parties connected with the slave-trade.

Up to the 18th of November, no recorded case had occurred afloat. In a day or two, however, two deaths were reported in a Swedish brig, which was the next vessel to the Brazil, and, being consigned to the same house, had frequent intercourse with that ship, And two other deaths, as it afterwards appeared, had already occurred on board the Swede without any medical man having been called. In a few days, every man on board the Swedish vessel had caught the disease, and the greater number of them died. It was not until the 3rd of December that there was any case among the English shipping. From this time, however, there was scarcely a vessel in port that escaped. Once the disease had established itself on board of a vessel, says Dr. Paterson, "it was the rarest thing possible for the fever again to quit it until every one capable of catching it had caught it." Meanwhile the disease had extended over the town and immediate suburbs, and ceased not to rage until it had "burnt itself out for want of fuel." "It spread," says Dr. Paterson, "to the suburbs and the adjoining country in radiating lines, in a direct ratio with the amount of traffic in any given line." By the end of February, it had attacked not less than 96 per cent. of the inhabitants. Out of 700 seamen (English) in port, between the 1st December, 1849, and the 28th February, 1850, 223 were attacked, and 72 died. Among the native Brazilians, "and those long resident in a tropical climate, the disease was comparatively mild; not fatal, certainly, in 1 per cent. Among the African blacks it was still milder. The native coloured population suffered as numerously, but, perhaps, less severely than the whites." In those recently arrived from extra-tropical climates, the fever assumed a more intense and malignant character, the mortality amongst such having exceeded 25 per cent.

Pernambuco, in 8° south, which was invaded by yellow fever next after Bahia, is built upon a low, swampy land, surrounded by an undulating range of hills, it may be 200 feet above the level of the sea. On one extremity of this range, and five miles to the northward of the city, the old town of Olinda is situated. The city is divided into the three districts of Recife, of San Antonio, and of Boa Vista, which are connected with each other by wooden bridges. Boa Vista, where the British Hospital is situated, is the cleanest and airiest part of the town, and that furthest removed from the harbour, near to which the streets are narrow, rather filthy, and in bad order. As the river is influenced by the tide higher up than the town, the water there is unfit for use, but a good supply of wholesome water is obtained from the Rio da Prata, about two leagues from the city. The banks of the river are studded with the mangrove. A secure natural harbour is formed by a reef of hard sandstone, which runs parallel to, and not far distant from, the shore.

The city contains 120,000 persons, viz.:—

1. Whites, native	34,000	
„ foreign	6,000	
		40,000
2. Blacks, native	30,000	
„ African	20,000	
		50,000
3. Mulattoes		30,000
		120,000

On the 17th day of December, 1849, the French bark Alcyon arrived at Pernambuco from Bahia, having lost two men on the passage from yellow fever. (a) Notwithstanding this she was admitted to pratique, and anchored among the other vessels in the harbour. Some fresh cases of fever occurring on board, they were sent to the French hospital (situated in San Antonio;) but one of them having terminated fatally on the 19th, the authorities ordered the rest to be re-embarked, and interdicted all communication with the Alcyon. The Consul, writing on the 21st December, says, "No cases have as yet to my knowledge occurred within the city. The authorities have ordered all vessels from Bahia to be placed under quarantine for eleven days." In a postscript to the same letter, he adds, "Two cases have since been reported on shore." (b) On the 25th December, Dr. Paton, an English medical man, young, healthy, and robust, and but a short time in the country, was attacked with fever in the British Hospital at Boa Vista, and died on the 27th. The immediate cause of death was at first supposed to have been epilepsy. He laboured for some days under low fever, and was found upon the floor of the room, and almost instantly died, the body turning bright yellow. On the day of Dr. Paton's death, another gentleman, the house apothecary, Mr. Pitt, also residing at the British Hospital, was seized with fever, and died on the fourth day with suppression of urine and black vomit. At this time there were only three other patients in the hospital—one with phthisis, one with ulcer, and the other with paronychia. On the evening of the day on which Mr. Pitt was attacked, the seaman with paronychia, was seized with similar symptoms. Next morning his countenance was anxious, and his extremities were cold, and he died on the following day with black vomit. Dr. May and his housekeeper, who attended Mr. Pitt, were next attacked. Both recovered, but the housekeeper's escape was a narrow one. During Dr. May's illness, the seaman with ulcer was taken ill, and, although sedulously attended by a friend, he

(a) Dr. Paterson, of Bahia, states, that four men were sent on shore ill with fever just before the Alcyon sailed from that port, although she was granted a clean bill of health. A correspondent at Bahia, writing on Jan. 29, 1850, says, "Accounts have been received, that the epidemic has made its appearance at Rio and Pernambuco, which is not surprising, as the authorities here, until now, denied its contagiousness, and continued to grant clean bills of health to all vessels."

(b) Dr. May, from whom I have heard since this paper was read at the Epidemiological Society, says, "One or two cases appeared in the town, and were speedily fatal, but nothing was said about them, in order not to create alarm. In the last days of December a seaman came into the British hospital with broken ribs from a Brazilian steamer, in which he had arrived direct from Bahia, where he had been on shore for some time. A few days after the admission of this man Dr. Paton was attacked. The seaman had no fever on admission, but he was emaciated and sallow."

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also died. After this, all Dr. May's black servants in the house were attacked, but none of them died.

The man with phthisis escaped.

Dr. May and Dr. Arekbuckle, the two chief practitioners of the place, both declared that Mr. Pitt died of yellow fever; but it was resolved, at a consultation held by the chief men in the profession, with the view of preventing alarm, to conceal the existence of the disease in the city.

The Consul, writing at this time, says, "It is hoped that the general purity and breadth of the streets, intersected as they are in all directions by the rivers, the perpetual sea breeze, and the clearness of the atmosphere, will at once check the disease, although for the present the city may be looked upon as threatened by invasion from without, and by pestilence within."(a)

The disease, however, radiated in all directions from the Boa Vista Hospital, so that, by the 14th of January, most of the inhabitants in that part of the city had been attacked; and its course, say the best authorities, could be traced step by step, from one district to another, all over the city, and even throughout the province.

So early as the 6th of January, the disease had spread to the shipping anchored in the harbour near the Alcyon, proving extremely fatal to those newly arrived in the country.

On board a Prussian vessel lying in the same tier with the Alcyon, a man was attacked shortly after the Alcyon's arrival with excruciating pains in the loins and legs, and died on the third day with black vomit. Although the Prussian vessel was quite new and remarkably clean, the captain had her fumigated, and used chloride of lime daily. Still in a day or two after another man was attacked, and he also died in a few days with black vomit. Others followed in rapid succession, until this vessel had lost eight men out of a crew of twelve.

The next vessel in which the fever broke out was an English barque, called the Esther Anne, a perfect model of cleanliness. She was also in the same tier with the Alcyon, and she lost her mate and four or five of her crew all from yellow fever. During the whole of this time, not a single case occurred in any other ship in the port, except among those in the same tier with the Alcyon.

The fever gradually extended from ship to ship, until all, with very few exceptions, were infected.

One English ship, the Columbus, anchored very high up the harbour, far from every other vessel, escaped entirely.

Another vessel, laden with guano, escaped for a long time, and the captain attributed his good fortune to the nature of his cargo. A day or two, however, before this vessel left Pernambuco, one of her sailors went on a visit to an infected ship. He was soon seized with fever and died, as did also the mate who attended him. Hundreds of similar instances might be narrated.

By the 20th of February, not less than 30,000 persons had been attacked on shore by the fever, and it had also extended to English, Portuguese, and Imperial men-of-war in the harbour. On board the Imperial corvette there were twenty cases of fever. At this time the business of many of the public departments could scarcely be carried on, from the number of *employés* affected.

The weather was at this time very hot. "On the 27th," says the Consul, "the sun will be vertical, and it is to be hoped that shortly afterwards we may have a change for the better."

These hopes were not, however, realised, for early in March the fever had increased in intensity, "no longer confining itself to persons newly arrived in the country, but proving fatal to natives as well as foreigners. By this time eleven of the British community, and probably two thousand residents, had perished. The Consul had already established an hospital on one of the islands in the bay, to which, during the month of February, seventy seamen, American, Hamburghian, and Swedish, were admitted, of whom forty-one died. Of forty-one British seamen, twenty-seven died.

This increased mortality of the disease was considered the more remarkable, as the Consul at this period observes, "the arrangements are all improved, the weather latterly uncommonly cool for the season; the medical men have increased experience, and the people invariably adopt habits of precaution; but nevertheless the plague increases both on board and on shore."

(a) Civil war was raging at this time.

Nothing could be better than the judicious arrangements suggested by Mr. Cowper, the English Consul, for the accommodation of the sick. Finding that the hospital was crowded, he, with the permission of the President of the Province, caused tents to be erected on Cocoa Nut Island, and afterwards had the sick treated on board their own ships, lying on deck, under awnings, exposed to a free circulation of air.

Mr. Cowper, to whom I am indebted for so much valuable information regarding this epidemy, thus classifies those that were attacked by fever at Pernambuco:—"1. New comers; 2. Seamen; 3. Residents of less than two years, not perfectly acclimated; 4. Natives of the first class from the southern provinces and from the interior, including North and South Americans, and even Brazilians. Of the second class, during the first month, the deaths were 1 in 3; during the second month, 1 in 2; during the third month, 2 in 3; during the fourth month, 4 in 5; and the mortality increased in proportion as the number attacked decreased. Of the third class very few escaped attack, and certainly not more than half death. Of the fourth class scarcely one escaped attack, but the disease was in a mild form; whilst nearly 100 per cent. of the two first classes, and 50 per cent. of the third, fell victims, not more than 3 per cent. of this class died."

Without reference to race, 16 per cent. of all foreigners attacked died, and 3 per cent. only of the natives.

The Sardinians, from some unknown cause, suffered more severely, both afloat and on shore, than other foreigners. According to Dr. May, the mortality afloat was 60 per cent. of those attacked.

Rio de Janeiro, the capital of Brazil, lies in 22°53 south latitude, and 43°12 west longitude, on the western side of a magnificent bay, not less than sixty miles in circumference, containing numerous islands, and surrounded by a scenery of surpassing beauty. Dr. Lallemand, one of the reporters on the yellow fever of Brazil, considers this bay to represent a "microscopic daguerreotype" of the Gulf of Mexico. "At Rio," he says, "we have a regular but almost land-locked bay, little subject to the influence of the ebb and flow of the tide, and into which a series of rivers discharge themselves, at whose marshy mouths, Paullinieæ and Avicennieæ, and the wondrous forms of the Rhizoporeæ determine the zone of vegetation."

The city is built on an undulating plain, which is said to have been a swamp, and is scarcely elevated above the sea level. There still exists a considerable marsh in the immediate vicinity of the city, to the westward. The salt water passes freely through a small creek, and mingles with the waters of this marsh. Although this source of malarial exhalation is, according to Dr. Leonard, surgeon of Melville Hospital, Chatham, not less than fifteen hundred paces long, and nearly five hundred paces wide, the inhabitants of its neighbourhood are said to be not more liable to fever than those in other parts of the city.

The mountains which encircle Rio consist of granitic rocks, and the soil is composed of disintegrated granite, with a variety of clays in beds of considerable depth.

The city itself occupies about three miles along the shore. There are some fine squares, but the streets in general are long and narrow. Sewerage and public cleanliness are matters of little concern. There are a few drains, but they seem to be little attended to, and, from the flat situation of the city, there is no run of water through them. The town is well supplied with good fresh water. The large aqueduct which conveys it from the Corcovado Mountain, is one of the most remarkable buildings in the city.

Situated just within the southern tropic, and environed by hills which partially intercept both the sea and the land breezes, Rio possesses an excessively sultry atmosphere, especially when the sun is south of the equator. From November to April, (the most sultry period,) a good deal of rain falls; the air is generally moist, and the heat is oppressive. From May until October the weather is drier.

In 1847, according to Dr. Leonard's observations, the thermometrical indications were as follow:—

	Maximum.	Medium.	Minimum.
August	78°	69°	61° Fahr.
September	81°	75°	69°
October	83°	72°	68°
November	83°	74°	69°
December	86°	77°	71°

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The population may be estimated at about 100,000 whites, 200,000 negroes and mulattoes.

The information regarding the invasion of Rio de Janeiro by yellow fever, and the subsequent course of that disease through the city and other parts of the province, is both voluminous and clear. The documents to which I have had access consist of:—

1. A Full Account of the Rise and Progress of the Epidemy at Rio de Janeiro, embracing the Histories of the first twenty Cases on Shore. By Dr. Lallemand, a German Physician in practice at Rio.

2. Replies to Queries sent to Rio de Janeiro. By Sir William Pym, Superintendent-General of Quarantine; with Observations by Mr. Lee, Surgeon, Rio de Janeiro.

3. Replies to Queries, with Observations; and a small Pamphlet on the Fever. By Dr. Croker Pennell, Rio de Janeiro.

4. Replies to Queries; with a Description of the Yellow Fever, and Remarks on its Successful Treatment on the Homœopathic Principle. By Mr. Cockran, a surgeon and homœopathic practitioner at Rio de Janeiro.

Besides these, there are several highly important official papers.

By the concurrent testimony of all these authorities, Rio de Janeiro was considered to be in a state of general good health prior to the latter end of December, 1849.

Intelligence that a malignant fever was raging at Bahia reached Rio by the Portuguese steam-vessel, Don Alphonso, on the 13th December, 1849. On the following day, the Portuguese ship Don Joáo arrived from Bahia, five of her crew having sickened, and two having died, during the passage. This vessel was accordingly placed in quarantine. The English packet Petrel, also from Bahia, arrived on the 23rd or 24th December,(a) with two cases of yellow fever on board—a passenger and the steward of the vessel. One of them died on the 25th, and the other on the 27th, while the vessel was in the harbour of Rio.(b)

The first known case of yellow fever in the city of Rio de Janeiro was seen on the 28th December;(c) on which day, says Dr. Lallemand, "On entering Fergusson Ward in the large city hospital, 'Misericordia,' to which I have been physician for seven years, I found two new patients whose appearance greatly struck me, and who presented a complication of morbid phenomena, especially a 'yellow colour of the skin, black vomitings, suppression of urine, hæmorrhage from the mouth and bowels;' and, in the case of one of them, great disturbance in the mental faculties, which led me to suppose something peculiar in these cases."

The cases were—

1. Enquist, from Finland; who had arrived about a fortnight before, direct from Russia, by the Russian brig Volga, and had been ill some days.

2. T. Andersen, a native of Sweden, who had arrived as sailor on board the barque Navarre, and had also been ill some days.

The patient No. 1 died the following night. No. 2 also died after forty hours, and on the 30th December.

Keeping these, the first known cases of yellow fever in the city of Rio de Janeiro,(d) stedfastly in view, it now becomes necessary to bring into prominent light the proceedings of the barque Navarre and her crew, already alluded to, during the months of November and December, as this vessel occupies an important place in the history of the epidemy.

(a) Dr. Lee, December 23rd, 1849.

(b) They had both been on shore at Bahia, and had visited a house where a person was lying ill of yellow fever, and who afterwards died.—Dr. Lee's "Replies to Queries."

(c) Dr. Lee: "The first case of yellow fever in Rio was at the Brazilian Hospital, on December 28th."

Dr. Croker Pennell; "The first known case of yellow fever occurred in the instance of a seaman, who was attacked and taken to the public hospital on December 28th."

(d) These were the first cases *in the city*. Dr. Lallemand, however, observes: "When, on the 11th of January, 1850, at a sitting of the Medical Academy of this place, I submitted the cases of yellow fever which had come under my own observation, Dr. Noronha Feitel stated a case which had occurred at the Naval Hospital on the 9th December. On that day, a man who had come from Bahia in the steamer Don Pedro, was admitted into the Naval Hospital on the Ilha das Cobras; when he died soon after of black vomit and diarrhœa. Now, although this case occurred almost close to the city, no further consequences ensued; nor did the physician of the hospital attach any importance to it, for he did not speak of it until a fortnight afterwards, in consequence of my statement at the Academy; and even then he merely mentioned it casually. So that it loses all importance which might otherwise attach to it."

The Navarre sailed from Bahia, in ballast, on the 24th November, 1849, and arrived at Rio de Janeiro on the 3rd December.(a) As we have already seen, yellow fever was raging at Bahia at the time the Navarre left that port. The Navarre's crew were, to appearance, in good health; the vessel was sold, and the men were paid off. Some of them went into other vessels, and were no more heard of; others went on shore at Rio, and took up their abode in the Rua da Misericordia, at a lodging-house kept by a man named Frank. The sleeping apartment on the ground-floor of this house was at this time very dirty, and many sailors were congregated in it. Close to Frank's house, on the opposite side of the way, were two other lodging-houses, the one kept by an Englishman named Wood, and the other by a Frenchman called Auguste Flourde. The lodgers of these houses very frequently visited each other.

I have already said, that some of the sailors of the Navarre went to lodge with Frank. When Dr. Lallemand visited Frank's house early in January, in consequence of the arrival of three fresh yellow fever cases from it into the Misericordia Hospital, he then learnt that Andersen, the subject of case No. 2, and Josiah Baker, another seaman of the Navarre, by this time also in the hospital, were the first that sickened at Frank's house; and that Enquist, the subject of Case No. 1, had lodged in an apartment behind Frank's house, where he was a frequent visiter. Dr. Lallemand says, with reference to these cases, "Enquist was admitted on the same day as Andersen, and I am perfectly satisfied he caught the fever by frequenting Frank's house."

By the 10th of January ten cases of yellow fever, of which seven proved fatal, had been admitted into the Misericordia Hospital; all of them were either from the lodging-house of Frank or Wood. One man, who refused to go into the hospital, was treated at Frank's house.

On the 10th of January, Robert Luff, an Englishman, was admitted to the hospital with yellow fever. He had been frequently under Dr. Lallemands care for wounds in his legs. He was a drunkard and a vagabond, and had been lodging at Wood's, where he sickened. He died in forty-eight hours. About the same time another Englishman, called Thomas Fox, also from Wood's, came into the hospital with symptoms of yellow fever, but he recovered.

Dr. Lallemand's attention being thus called to Wood's house, he proceeded thither, and found Wood himself, his wife, and a German waiter, all suffering from yellow fever in a comparatively mild form.

Auguste Flourde, the landlord of the French lodging-house, had meanwhile been admitted into the hospital on the 3rd of January. He left it on the 5th; but, suffering a relapse, he returned, and died of malignant yellow fever after five days. Flourde's wife had also a slight attack on the 17th January, but she recovered.

By the 19th of January, Dr. Lallemand had seen and treated twenty cases of yellow fever, all them belonging to the houses of Frank, of Wood, or of Flourde. Of these, fourteen were admitted to the hospital in a hopeless state, and ten died.

The histories of the whole of these cases are detailed with great clearness and circumstantiality by Dr. Lallemand. That they were the first cases of yellow fever on shore in Rio de Janeiro, there seems no reason to doubt; for, besides Dr. Lallemand, Dr. Croker Pennell, Dr. Lee, and others, distinctly refer the outbreak of the disease in the city to the lodging-house in the "Rua da Misericordia."

The patient Enquist, whose name stands first in the hospital list, had frequently visited the Russian and Finland ships in the harbour; in fact, he sickened while actually on board one of them. Suddenly, a captain, a steersman, and a sailor, died from an acute attack of yellow fever on board the Finland vessels Niored and Norna, on the 9th January, 1850; and, on the following morning, several patients from these vessels, and from the Swedish ship Scandia, were received into the Misericordia Hospital.

The yellow fever consequently prevailed in the harbour so early as the 9th of January.

[To be continued.]

(a) Dr. Lee and Dr. Pennell, 2nd December, 1849. Mr. Cockran, end of November or beginning of December.

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LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	April 19.—Medical Society of London. *Subject*:—Dr. Hutchinson, "On the Symptoms of Phthisis." Eight o'Clock.
Monday,	April 21.—Chemical Society. Eight o'Clock.
Tuesday,	April 22.—Royal Medical and Chirurgical Society. *Subjects*:—1. Mr. Marshall, Assistant-Surgeon to University College Hospital, "On Certain Applications of the Heat of Electricity in Practical Surgery." 2. Spencer Wells, Esq., R.N., "On Chloroform in a Case of Pulmonary Consumption." 3. Mr. Dunn, "On the Inhalation of Chloroform and its Effects." Half-past Eight o'Clock.
	Zoological Society. Nine o'Clock.
Thursday,	April 24.—South London Medical Society. Eight o'Clock.
Saturday,	April 26.—Medical Society of London. *Subject*:—Dr. O. Ward, "On Venous Murmurs." Eight o'Clock.
	Royal Botanic Society. Quarter to Four o'Clock.

THE MEDICAL TIMES.

SATURDAY, APRIL 19.

THE IRISH MEDICAL CHARITIES.

In concluding the consideration of this subject, we beg to remind our readers of the suggestions contained in our former articles, with respect to the constitution of the Board, and other matters connected with the proposed measure of Sir William Somerville. The new Bill, to which we have already adverted, has been laid before the House of Commons; and, before we proceed to the discussion of the claims of the Apothecaries of Ireland, as advertised in our last article, we will glance at the alterations and amendments made in the new Bill, showing how it differs from the last, the more particularly as it has not as yet, we believe, been made generally known to the Profession.

As we recommended in our former articles, the present Bill is a Poor-law measure, not only in spirit and effect, as it must be in its operation, but it is entitled, an Act to amend that provided "for the execution of the laws for the relief of the poor in Ireland." In the first instance we learn from the preamble, that the hybrid Board of "Commissioners of Health," composed of the actual working and ex-officio present Poor-law Board, the paid Medical Commissioner, together with an amateur Medical Commissioner, has been given up, and instead thereof there is to be but one Medical Commissioner, who must be a physician and surgeon of not less than seven years' standing, to be added to the present Poor-law Board; and the Assistant-Commissioner (the office is now held by Mr. Ball) is to be raised to the dignity and office of a Commissioner. The Medical Commissioner is not allowed to practise; and the clause obliging him to be both a physician and surgeon, although perhaps a special legislation, and one which would exclude several of the first men in the Profession, we see no great objection to. We are not quite satisfied with respect to the working of amateurs upon boards or commissions; still we think that the Presidents of the Colleges of Physicians and Surgeons in Ireland should, as we formerly recommended, have seats at the Poor-law Board whenever the subject of qualification, payment, or dismissal of the medical officers in the several charities came under consideration. This would not only give the Profession at large a voice at the Poor-law Board, but would be the means of keeping the presidencies of the colleges among the senior members and heads of the Profession, instead of sending down these offices by rotation to men who have no claim to them, either by public or professional station. It remains, however, with the colleges to work this subject or not when the Bill is in committee. The College of Physicians had already taken a lead, and petitioned upon the subject. The office of secretary has likewise been relinquished; but, as this was not required by the former Bill to be a medical post, there is no great loss to the Profession thereby. Inspectors, being physicians or surgeons of not less than seven years' standing, are also to be appointed; but instead of the four specified in the former Bill, the number is not stated in the present measure. These inspectors are entitled at all times to inspect every infirmary, hospital, or other medical institution, and to attend the meetings of every board of guardians, dispensary committee, or board of governors of any hospital district, on all business arising in the execution of this Act, and to take part in the proceedings, but not to vote at such meetings. So far so good. Every such board, and every medical officer, where a public charity is properly managed, must invite such inspection; but then there comes a proviso, which we sincerely hope may be amended when the Bill is discussed in detail. These medical inspectors, appointed by the Poor-law Board, paid out of the poor-law funds, employed to inspect hospitals and dispensaries absolutely created under this amended Poor-law Act, are not to be allowed to enter or inspect, or make inquiry into "any infirmary, fever hospital, or other hospital or medical institution used as part of, or in immediate connexion with, any union workhouse!" How or why this clause has been retained in the present Bill, we really are at a loss to conjecture. We must again repeat what we have already stated, that, to be a great and comprehensive measure, the provisions of this Bill should extend in all their ramifications to every class of medical charity in Ireland. We cannot understand why Sir William Somerville should, in an amended Poor-law Act, determine to include the county infirmaries, and exclude the hospitals established under the Act which this Bill is made to amend. We should like to hear his opinion on this subject when the matter comes under discussion in the House.

Instead of the Commissioners of Health preparing a scheme for the division of each union in Ireland into dispensary and hospital districts, that power is now proposed to be committed to the local guardians. We are not sure that this is an improvement. We believe a board of honest men sitting in Dublin, with the map of Ireland before them, and a competent knowledge of the extent and population of such unions, are more likely to make a division commensurate with the wants of the community than boards of guardians, several of which have, during the last few years, been dismissed for jobbing and incompetency.

The dispensary committees are to be elected by the guardians from persons whose properties are rated at thirty pounds, who, together with the *ex-officio* and elected guardians of the poor, resident or being owners or occupiers of property therein, shall constitute such committee of management. We would suggest that, in addition, the respective ministers of religion belonging to such districts—than whom none are more competent to form an opinion of the wants of the community, or are more frequent witnesses of disease and suffering—should likewise be *ex-officio* members of the committees of management of the Irish medical charities. We fear, however, that as the election of guardians is in many instances more or less political or religious, so will be, to a certain extent, the medical appoint-

ments made by them. This, however, could scarcely be avoided. The governors of hospital districts must be rated for property in such district of not less than fifty pounds per annum. The power to afford dispensary relief is, as in the former Bill, proposed to be vested in the members of the dispensary committee and the relieving officers and wardens of each electoral division; and the tickets for attendance, medicine, and medical advice so issued, are to be examined at the next meeting of the committee; and, if the persons so recommended shall not be fit objects for dispensary or hospital relief, such tickets shall be cancelled, and the holder thereof disentitled to further relief. From and after the passing of the Bill, the several hospitals, infirmaries, and other medical institutions in Ireland, with the various buildings and funds thereunto belonging, shall become subject to the authority of the Commissioners, with the exception of institutions supported by private subscription, bequests, or other such property—the medical institutions attached to religious or monastic establishments; and certain hospitals in Dublin—to wit, the Meath, Jervis-street, Mercers', St. Mark's Ophthalmic, the Hospital for Incurables, and Baggot-street. But these latter may, according to a clause introduced into the new Bill, upon application from their governors, be placed under the jurisdiction of the Commissioners, and be created district hospitals; such governors assigning over to the Commissioners all property belonging to such institutions. The lunatic asylums, (already provided with competent inspectors, under their own Act of Parliament,) and the hospitals belonging to religious establishments, are excluded from inspection under the proposed Bill. Admission into the district hospitals is vested in the governors of such, the dispensary committee, and the relieving officers and wardens; but in case of sudden and urgent necessity, the medical or other officer in charge of such hospital may receive patients. Improper objects may be dismissed at the next meeting of the hospital board; but no provision is made by which the medical officer or other person in charge of the institution can dismiss a patient for irregular conduct or non-compliance with the rules of the establishment. This we look upon as a great defect, and it demands the attention of the Irish Members at the proper time. Every one who has had experience of public institutions knows, that unless such power is vested in the physician or surgeon of an hospital, it is not possible to maintain order or propriety. Without such clause being introduced, an ill-conducted patient may be drunk, riotous, or abusive with impunity, during the entire period which elapses between the meetings of an hospital board.

With respect to the medical officers of public charities, the appointment is, as in the former Bill, to rest with the guardians, but the qualifications and salaries are to be determined by the Commissioners. The Bill, however, of the 17th March, 1851, differs from that of the 6th August, 1850, in the clause relating to the dismissal of officers, and we think the alteration is rather an improvement. In the present Bill it is not necessary that a complaint should be made by the board of guardians, but that "it shall be lawful for the said Commissioners to remove any such medical officer on sufficient grounds," and to direct the guardians to appoint another in his stead; on failure of which election within one month after such direction, the appointment rests with the Commissioners.

Existing medical officers are provided for as in the former Bill; that is, they may be appointed to their respective districts, irrespective of the guardians, "and it shall not be necessary for the said Commissioners, *unless they think fit*, to reject any such medical practitioner so in possession of any such office, before the formation of any such district, by reason of the *want of such qualifications* as may be required by them in other cases." The vaccination clause, and that compelling the medical officers of districts to give attendance at bridewells, and to examine dangerous lunatics, remain as before, by which means the degrading contracts made by poor-law guardians, sometimes with medical men of the lowest grade, is got rid of, and district surgeons and physicians are required to vaccinate all persons who come to them for that purpose, and also to examine dangerous lunatics, without fee or reward; but when summoned to attend prisoners, or the inmates of bridewells or houses of correction, such extraordinary duty may be taken into account by the Commissioners, who may fix the amount of salary of the medical officer in such locality, so as to compensate him for such additional trouble. So far, we see no objection to this portion of the clause; but it likewise renders it imperative on the medical man, physician, or surgeon, of either an hospital or a dispensary, no matter what his qualification, rank, or standing, "to supply to such prisoners and inmates the necessary medicines." This is a section of the clause which we think requires amendation; first, because it is lowering to the Profession, and, secondly, because it trenches upon the province of the apothecary and the druggist; but of this hereafter.

The clause relating to infirmaries contains a very useful addition, and such as we recommended in our former article upon that subject: it provides that, in case of any person now holding a county infirmary made subject to the provisions of this act, if by such means the salary which he has been heretofore in the habit of receiving from grand jury presentment, shall cease or be diminished, "it shall be lawful for the governors of such hospital district, *and they are hereby required*, in allocating a salary for such surgeon while so continuing as a medical officer of such infirmary, made subject to the provisions of this act, to allow him an annual sum equal to the annual amount, by which (after all annual payments to be hereafter made to him from grand jury presentments, if any, as medical officer of a prison or otherwise) the salary heretofore payable to and received by him from grand jury presentments shall be so diminished." After this, we really do not see why the infirmary surgeons should grumble. The claims at least of the existing men seem to have been fully considered; but we think these residences should also be secured to them for life. Sir William Somerville, in drawing up the present Bill, appears to have studied every reasonable objection offered to the former one, and taken advantage of many of the hints and suggestions thrown out, either in the House or by the Medical Profession in Ireland at its various meetings since Parliament was prorogued last autumn. The present Bill is not only one of the most urgent necessity as regards the poor and the Medical Profession in Ireland, but, with the exception of those topics to which we have adverted in the foregoing statement, and one other to which we shall presently allude, is the best measure that could, under the circumstance, be introduced. And it behoves the Medical Profession in Ireland to waive whatever differences and distinctions may exist among its corporate bodies or its individual members, and unite, by its influence among the Irish Members to place this Bill as soon as possible upon the Statute-book. The omission to which we have just alluded, is the want of any provision for the proper preparation and administration of medicines by means of competent apothecaries to the hospitals about to be created. The space which we have devoted to the fore-

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going analysis, which is so necessary just at this moment, prevents our discussing this latter question at any great length, but we may resume it again, and also take up the subject of the Dublin hospitals, from which the Parliamentary grant has been in part withdrawn, and which is at present engaging so much public attention in the Irish metropolis.

Since we last discussed the subject of the Irish Medical Charities, the *Dublin Medical Press* has come forward in the eleventh hour,—and after it had, during the past year, "reluctantly abstained from advocating" the cause of the County Infirmaries,—to lend its support to those institutions; but, not willing to stultify its previously expressed opinion, it wishes to conciliate the parties who think themselves aggrieved, by publishing a document so old as November last, and which lay before us when we defended the claims of the infirmary surgeons upwards of a month ago.

Let us now turn to the third class to which we adverted in our former articles—the apothecaries—who form the great mass of the general practitioners of Ireland. We remember reading, some years ago, an exceedingly interesting article, which appeared in the *Dublin Quarterly Journal of Medical Science*, upon the fraternity of apothecaries, originally styled, "The Barbers and Chirurgeons of the Guild of St. Mary Magdalene," and incorporated by Henry VI. It would appear from that history, and from other sources of information, that, in very early times, the College of Physicians endeavoured to restrain the apothecaries and surgeons from *practising physic* in Ireland, but without success; and that, about a hundred years ago, the Guild or Company of Apothecaries was exempted from certain municipal duties, on the ground of their "medical attendances." According to the 3rd George III., cap. xxviii., an apothecary was rendered eligible to attend, in a medical capacity, prisoners confined in gaol; and, in the 17th and 18th of the same reign, an Act was passed, empowering justices of the peace "to appoint an experienced surgeon or *apothecary*, at a stated salary, to attend each gaol or prison where malignant fever prevails, and to report to said justices by whom he is appointed, at each quarter sessions, a state of the health of the prisoners under his care." By subsequent Acts, the same powers, rights, and privileges were confirmed, and rather increased. Some years subsequently, an Act of Parliament acknowledged the certificate of an apothecary a sufficient warrant for admitting infected persons into hospital; and according to the 4th George IV., apothecaries were acknowledged and classified as medical officers, eligible to be elected to prisons as practitioners, "exclusive of bills for medicines." By Acts passed in the two subsequent reigns, those of William IV. and Victoria, apothecaries were designated medical officers, competent to give evidence as *medical* witnesses, to certify in cases of lunacy, and to act on board ship as medical men; such persons being "authorised by law to practise in the United Kingdom as physician, surgeon, or apothecary." Such is yet the law of the land, and in practice it is acted up to; apothecaries being still, in some places in Ireland, medical attendants of public charities, as well as occasionally to the military and constabulary; and they also are so employed under the provisions of the Poor-law Act. We have adduced these facts to show that the Irish apothecary, no matter what may be his legal qualification, was *considered in the light of a medical practitioner*, and that, as such, his claims, whatever they are, have a right to be taken into account in legislating for Irish medical charities, —we will not say *in futuro*, but certainly as regards the men holding public institutions at present; and therefore we look upon the clause introduced in the Bill, with respect to non-qualified practitioners continuing to hold office where they are already in possession, as just and equitable.

Let us now see by what other means the apothecary holds his present position as a General Practitioner in Ireland. As we have already stated in our former articles, the physicians and surgeons of the Irish colleges were, by the most stringent laws, precluded from disposing of medicines, even to their own patients. An Irish apothecary, (we speak even of times long since past,) although he possessed no medical or surgical diploma entitling him to practise, generally received some amount of medical education. He had walked an hospital for a season at least, and generally attended a course or two of lectures upon medical or surgical subjects, at some of the schools of the metropolis, besides the course of pharmacy prescribed by the Apothecaries' Hall; and, in addition, some possessed a midwifery licence from the Dublin Lying-in Hospital or other school where the obstetric art was taught in that city. Furnished with this amount of information, and keeping an open shop for the sale of medicine; taking small fees from persons of moderate means or penurious habits—having, a family connexion in the surrounding neighbourhood; being the ordinary attendant of the dependants and the children of the great; being the first person almost invariable sent for in cases of accident or illness; and allowing his clients to run an annual bill for medicine and attendance,—can we wonder that he became the general practitioner, to the exclusion of both the young surgeon and young physician. When the case became urgent, a legalised practitioner of repute was called in, who generally *consulted* with the apothecary. In Dublin, we believe the late Dr. Cheyne was one of the firs to introduce this practice, and since then it has been adopted by many of the most eminent practitioners in the Irish metropolis. Of late years, the apothecaries finding themselves more and more established in public confidence in the position which we have described, generally extended their education, and took the diploma of some medical or surgical College, generally London or Glasgow, so that, with one or two exceptions among the old established practitioners of the metropolis, and in whom the public repose great confidence, the general practitioners keeping open shop, are at the same time physicians or surgeons.

The Company of the Apothecaries' Hall, observing how the wind blew, and that their licentiates were, from the causes to which we have alluded, daily becoming practitioners—seeing also that the public *would have* a cheap general practitioner; and not unaware of the difficulties thrown by the Irish Colleges in the way of their members disposing of their medicines as well as their art, determined to establish a school of medicine, and added to their curriculum of education lectures upon Anatomy and Physiology, practice of Physic, Surgery, &c., as well as those upon Pharmacy, Chemistry, and Botany, which their pupils were originally compelled to attend. Hence arose the present school of medicine of the Apothecaries' Hall in Cecilia-street, to the erection of which, we believe, private pique and certain jealousies then existing between rival classes of practitioners not a little conduced; but on this subject we do not desire to enter. No doubt the education required, and the instruction given by the Apothecaries' Company is very good—undeniably superior to what was required by many of the licensing bodies of Great Britain not many years ago; still we are not sure that the desired

end has been effected by the establishment in Cecilia-street, except as a medical school, for a large portion of the students educated there take degrees in either medicine or surgery after they have passed the Apothecaries' Hall, because they do not consider the latter a sufficient guarantee when they go into practice. While this endeavour has been made by the Apothecaries' Company to create Medical Practitioners, we fear that the legitimate objects of that body,—the improvement of pharmacy and its collateral and contingent branches—has been neglected. We confess we should now much rather see a good botanical garden and a scientific laboratory engaging the attention of the apothecaries of Ireland, than the erection of new professorships on subjects whereon they are not entitled to grant diplomas.

As a consequence of all this, there are now but comparatively few pure apothecaries in Ireland, and, unless care be taken, the chemists and druggists, as well as the medical halls, will soon supplant the ancient craft and mystery of the old compounder and vendor of medicine. The young legalised practitioners, not apothecaries, and some of the older ones, who have not been as successful in life as their more fortunate brethren, inveigh bitterly against the apothecary-general-practitioner, and have already commenced to give medicine, as well as advice, to their patients. How far they are wise in this it is for themselves and their advisers to judge. We think, however, that if the apothecary's shop is liable to the inspection of the fellows of the College of Physicians, so ought to be the medicine chest of the private vender of drugs and chemicals. By overlooking their own legitimate interests, the apothecaries of Ireland (while a large proportion of their body have risen into general practitioners) seem to have lost sight of the places to which they ought to have legitimate claims. There are a great number of hospitals and dispensaries to be established under the new Bill, but we do not observe in that Bill any provision for the preparation of the medicines to be administered in these public charities. No mention is made of the apothecary, as a pure apothecary, throughout it. We would therefore suggest to our pharmaceutical friends at the other side of the water, that instead of opposing the Bill because it will not acknowledge them as "medical men," to endeavour to get a clause introduced by which each hospital at least, will have its medicines properly compounded by a pure apothecary, where the medical or surgical attendant thereof *has not had a pharmaceutical education*. At the same time that we make this suggestion, chiefly for the sake of the medical charities, we would suggest that such apothecary should not hold a licence to practice medicine, surgery, or midwifery, while employed as the compounder of medicine, to any such hospital or charity. By this means the science and practice of pharmacy would be greatly improved in Ireland; it would be worth the apothecary's while to be an apothecary alone; and by such regulation the medical officer would be protected from any interference in his duties, or any endeavour to supplant him by his subordinate.

During the last few days we have received some communications from Dublin, complaining of our observations respecting the difficulty of obtaining a medical degree at the Irish University. These, with our answers thereto, will be found under the head of General Correspondence, to which we beg to refer our readers.

[We have to correct an error that crept into our leader of March 8th. We are made to say, that, since the days of Vesalius, *Trinity College* had thrown obstacles in the way of obtaining degrees in Medicine. It should have been that *Divines* had done so. Our readers will, therefore, make the correction; and for "*Trinity College*" read "*Divines.*"]

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

Obstetrics; the Science and the Art. By CHARLES D. MEIGS, M.D. Philadelphia. Pp. 671.

After some preliminary observations, in which the *science* of obstetricy is distinguished from the *art* of midwifery, our author divides his subject into four points:—The Anatomy, the Physiology, the Therapeutics and Surgery of Midwifery; and the History and Diseases of the Young Child.

In the first part, which is devoted to the anatomy, the details are given in an agreeable and pleasing style; many of the points being examined with considerable fulness. The subject is also illustrated by many excellent wood-cuts and plans; and interspersed with practical details, which serve to impress the anatomy upon the mind, and to illustrate its practical importance.

In the second part (the Physiology) the subject of menstruation is discussed and described to be "the regular periodical evolution and expulsion of an ovule; it is ovulation."—P. 126. And in the chapter on Pregnancy, the changes which occur in the uterus from impregnation, and some of the diseases incident to this state, are described. A chapter is also devoted to the subject of Amenorrhœa, which appears to be introduced, in order to allow the author to state some peculiar opinions which he holds. He first says, "that the medical treatment of amenorrhœa is eminently empirical, unsatisfactory, and unsuccessful," (p. 135,) whilst the true curative means are considered to reside in attention to the circulation. This serves to introduce a series of propositions, (p. 141,) which are too long to reproduce, but of which we will extract the chief:—

"The endangium contains the force that makes the blood."

"The endangium is the lining or interior membrane of all blood-vessels."

"When it is healthy the blood is so—when it is diseased, the blood becomes diseased."

"The endangium is the regulator of these proportions, (i. e., between the fluid and red constituents of the blood;) when its powers are either lessened or exaggerated, the crasis is changed."

We do not intend to offer any laboured refutation of the errors contained in these hypothetical aphorisms; nor would we have noticed them, but for the injurious influence which they exert upon the treatment of some of the diseases of the puerperal state. So far as the treatment of amenorrhœa is concerned, it is that which is usually recommended.

It is with pleasure that we turn to the third division of the work, wherein the description of labour, in all its phases, bespeaks the eminently practical physician. The question of "Anæsthesia in Midwifery" is discussed, when our author says:—

"I do not feel inclined at all to deny that there may be instances of severe suffering for women in labour, that ought to be mitigated, or even wholly obviated, by casting the woman into the profound anæsthesia of chloroformization. But what I do desire to say is this, viz., that I remain as yet unconvinced, either of the necessity for the method, or of its propriety."—P. 316.

After such an expression of opinion from a professor of midwifery, we might expect that he had some practical experience as to the operation of this agent. But no. "I have not exhibited it in any case," (p. 323;) and the reasons which are given are:—"Notwithstanding I have seen so many women in the throes of labour, I have always regarded a labour-pain as a *most desirable, salutary, and conservative manifestation of life-force.*"—P. 323. We are unable to say how far ladies residing in the United States would agree with this opinion; but we have no hesitation in saying, that, in this country, they consider a labour-pain as anything but "most desirable" or "salutary." Our author also states:—

"The average duration of labour is four hours,—the number of labour-pains is about fifty, and they last each about thirty seconds; so that the parturient woman really suffers from labour-pains about fifteen or sixteen minutes, and no more (!)—and these sixteen minutes are distributed among the four hours of a labour of mean duration."

We do not feel ourselves called upon to enter into an argument with an author holding such opinions as these as

the foundation of his objections to the use of anæsthetic agents in midwifery. Were the facts as he has stated them, we agree that these agents would not be required; but, as the daily experience of every accoucheur proves these propositions to be incorrect, it follows, that any conclusions deduced from them must be incorrect likewise. The value of chloroform in many conditions of parturition is too well established to need any further comment; and we could, if need be, extract different cases from our author, wherein "chloroformization" would have been of essential service.

The succeeding chapters are devoted to Face Presentations—Presentation of Pelvic Extremity of the Child—Preternatural Labours—Deformed Pelvis—The Forceps—Embryotomy—Induction of Premature Labour—Inversion of the Womb—Puerperal Fever—Of Atresia Vaginæ—On Ergot of Milk Fever,—all of which contain much interesting matter; but that on Puerperal Fever will require a more lengthened notice.

After some *à priori* argumentation, it is stated of puerperal fever, "it is probable that the *ipsissimus* morbus is endangitis, commonly called metro-phlebitis."—P. 561. "An epidemic influence or atmospheric constitution, which sometimes" exists is considered "unquestionable." But of the doctrine of contagion, we are told, "the chain of causation is too fine to be discerned; and, as I wholly reject the doctrine of contagion in yellow fever, in Asiatic cholera, in measles, and in scarlatina, I remain equally recusant as to the contagion of puerperal peritonitis, and metro and crural phlebitis."—P. 567. And as to the treatment, "A child-bed fever should be cured very soon, or it will scarcely be cured at all. The cure consists in the bold and judicious employment of venesection."—P. 568.

On considering the subject of puerperal fever, we have frequently been struck with the apparent inconsistency of authors in considering all feverish conditions developed after parturition, as cases of puerperal fever, and treating them according to some preconceived notions as to the pathology of this disease. It does not appear to have occurred to most who have written on this disease, that the puerperal female is liable to various febrile affections, which require essentially different plans of treatment. A case of simple peritonitis must require different medication from a case of pyohæmia, the result of purulent absorption, or of inflammation of the veins. We might also refer to cases which have been treated as puerperal fevers, where, after death, "the uterus had recovered its normal size in the unimpregnated state, and exhibited no trace of disease of any kind. The ovaries were equally healthy, and the large veins of the pelvis and thighs were examined, but showed no disease." So likewise in epidemic attacks of the disease, we may sometimes fairly question whether it was not the prevailing epidemic which attacked the lying-in woman. As an example, "a woman in perfect health was confined in a room adjoining where there was a bad case of typhus. She suddenly got puerperal fever and died." But was not this simply a case of typhus fever, communicated by contagion?

If, then, it be illogical to class various diseases occurring in parturient women under the single term of "puerperal fever," it is equally improper to adopt one plan of treatment for these different disorders; nor can we imagine a more serious error than "the bold and judicious employment of venesection" in all cases, the best commentary to which is contained in the letter from Dr. Collins, quoted with admirable impartiality by our author. "The master of the hospital who preceded me, and to whom I was assistant, was a strong advocate for it; but the mortality was so frightful he was forced to abandon it. He bled instantly and copiously, but with the most fatal results."

In conclusion, whilst we would express our unfeigned approval of the work as a whole, and particularly of that part which relates to the *art* of midwifery, wherein the eminently practical accoucheur is portrayed in every page, still we cannot help expressing our regret, that in the *science* of obstetricy he has allowed fanciful opinions to usurp the place of deductions which ought to have been derived from practice alone; these fanciful opinions leading, sometimes, to what we regard as serious errors in treatment.

Diseases of the Human Hair. From the French of M. Cazenave. By T. H. Burgess, M.D. Pp. 110. London. 1851.

"Those who expect," says Dr. Burgess, in his Preface, "to find a list of specifics in this little volume, will be disappointed. Its object is to show the erroneous views which prevail as regards the growth, reproduction, and management of the hair; to condemn the pernicious compounds which tradition and empirics have rendered popular; and to point out those simple and rational hygienic measures which nature requires to preserve the hair in a healthy condition."

This little book is divided into four chapters. The first consists of a description of an apparatus, devised by Dr. Burgess, for fumigating the scalp in certain chronic diseases of that region, involving the loss of hair. The remaining three chapters are from the French of M. Cazenave: they treat of the anatomy and physiology of the hair; alopecia, or the loss of hair from natural causes, debility, or disease; on the management of the human hair in health and in disease.

For senile or congenital alopecia, M. Cazenave states, nothing can be done; in that resulting from profound constitutional disturbance, the cause must be removed; at the same time, local remedies are in these cases of some avail. Thus, the scalp may be shaved, and the secretion of the hair stimulated by dry friction, tonic lotions,—as rum,—the patient being, at the same time, submitted to a judicious and well-regulated regimen. The appropriate remedies for the forms of alopecia resulting from local causes, are those required to combat the different eruptions of the scalp which may have occasioned them. In some cases of alopecia, Dr. Burgess strongly recommends the use of his apparatus for fumigating the scalp.

The fourth chapter, on the management of the hair, contains sound advice, but scarcely admits of abbreviation.

A Concise Practical Guide to the Physical Diagnosis of Consumption. By R. Payne Cotton, M.D., Assistant Physician to the Hospital for Consumption and Diseases of the Chest. Pp. 97. London. 1851.

A book is valuable just in proportion to the value of the object it proposes to attain, and the success with which the author has attained that object. Judged by this rule, Dr. Cotton's little book is a good one. He does not pretend to have said anything new, nor even to have said much, better than it has been said before; but what he says he has done and really has done is, he has brought together in a small compass the materials that lie scattered through many pages of larger works. These materials are chiefly borrowed from Dr. Walshe's book on the Physical Diagnosis of Diseases of the Lungs, and Louis's writings.

The following are laid down by Dr. Cotton as the signs of the first stage of phthisis:—

Bulging of the infra-clavicular region, with increased or diminished resonance.

Retraction of the same region, with imperfect resonance.

Imperfect expansion. Elevation of the thoracic parietes must not be confounded with their expansion.

Increased vocal fremitus.

Increased distinctness of the heart's sounds under the clavicle.

Jerking or rough inspiration.

Prolonged or bronchial expiration.

Pulmonary crumpling sound, or a few dry crackling rhonchi. The signs of bronchitis limited to one or both apices.

In determining the importance of these signs, it must be borne in mind that expiration, as shown by Louis, is, in a certain proportion of healthy individuals, somewhat prolonged, and the vocal fremitus and resonance comparatively strong under the right clavicle.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

CONDITION OF THE INTERNAL EAR IN TYPHOUS PATIENTS.

All writers on typhus fever have noticed the ringing of the ears and deafness which almost invariably accompany severe cases of that disease, and most physicians are disposed to regard these symptoms as nervous. M. Passavant,

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on the other hand, has examined the internal ear in a great number of patients cut off by typhus fever, and he has always found certain pathological lesions corresponding to the symptoms observed during life. The petrous portion of the temporal bone is congested, and the congestion extends to the internal parts, except those of most solidity. The transparency of the tympanum has disappeared; the membrane is thickened, red, and its epithelium peels off with great readiness. This injection of the membrana tympani extends some way along the external auditory canal, and in some cases small spots of ecchymosis are found between the injected vessels. The cavity of the tympanum contains a thick viscid mucus, which is also found in the Eustachian tube, and in the cells of the mastoid process. The mucous lining of the middle ear is congested likewise, of a rose or bluish red colour. The labyrinth does not present any constant alteration, though some points of injection are occasionally observed. M. Passavant has not found the above described lesions in bodies of persons cut off by other diseases, not even in cases of inflammation of the ear. He therefore regards them as peculiar to typhus fever.—*Zeitschrift für Rat. Medizin.*

HYDROCHLORIC ETHER.

M. Flourens has been making numerous experiments on animals with the chloruretted hydrochloric ether, otherwise called the "Dutch liquor." When inhaled, it produces anesthesia rapidly. The sciatic nerve was exposed while the animal was in a state of insensibility, and it was found that the sensibility of the nerve remained, although the motor power was completely lost.

From 2 to 2½ scruples of the liquor were injected into the right femoral artery of several dogs. The hind legs became immediately paralysed; and, on laying bare the sciatic nerves, the same loss of motor power, with preservation of sensibility, was noticed. These experiments confirm the conclusions at which M. Flourens has already arrived, viz., that certain substances act on the sensitive, others on the motor powers of nerves; while, again, some substances act on the tension, others on the relaxation of muscles. The experiments even tend to separate muscular from nervous action, because the tetanic spasm manifests itself when all motor power of the nerve is annihilated; and, on the other hand, the muscles are found in a state of perfect relaxation, though the motor power subsists. There is, then, a visible independence between the action of a nerve and the action of its muscle.—*Bull. de l'Acad.*

COMPLETE ABSENCE OF THE UTERUS.

Dr. Ziehl, of Nuremberg, relates a curious example of this rare malformation. A woman, 57 years of age, had been married since the age of 32, but never menstruated, nor had she ever exhibited any sexual inclinations. The body and external reproductive system were perfectly formed. She died of pulmonary consumption. On examining the body, the labia and clitoris were found in a natural state, but the vagina was so small as barely to admit the index finger. It was about an inch in length, and terminated in a *cul de sac*. There was no trace—not even a rudiment—of the uterus. Yet the ovarian tubes and ovaries were fully developed.—*Med. Correspond. Blatt.*

FRACTURE OF THE ASTRAGALUS.—SECTION OF THE TENDO-ACHILLIS.

It has been generally supposed that the form and position of the astragalus render impossible any other species of fracture except the comminuted.

The following case illustrates a second and rare variety:—

In August, 1842, a lancer, while endeavouring to run in a state of complete drunkenness, fell down. On getting up he was able to walk a few yards, but soon fell again, and had to be carried to hospital. The foot was slightly inclined inwards, and the point directed downwards from retraction of the tendo-Achillis. When the inflammation had subsided, an effort was made to restore the joint to its natural position; but the moment the efforts were suspended, the foot became deformed from action of the muscles. It was evident that the only chance of cure depended on division of the tendo-Achillis. This was done, and the ankle-joint, restored to its natural position, was easily retained by the common fracture apparatus. Crepitation of the fractured bone was evident. The patient was able to walk about on the fifty-third day after the accident.

M. Begin has treated a similar case; but division of the tendon was not required, for the usual apparatus sufficed to keep the joint in place.—*Bull. de l'Acad. de Med.*

EFFECTS OF THE STINGS OF SPIDERS.

In a communication by M. Lespian to the Société de Médecine at Montpellier, two or three curious cases are recorded, in which the stings of spiders were attended with singular results. The cases occurred in Algiers. In the first case a soldier was brought into the hospital at Bône, who had been stung by a spider in the neck. The part immediately began to swell, and became as large as a pigeon's egg, and was extremely painful. The patient soon became very restless, and was not able to remain in one position for a moment; respiration grew very laborious; there were attempts at vomiting, and spasms in the extremities; the pulse became small, and the surface cold. When admitted into hospital there was delirium, and the man answered questions with difficulty. The chief symptoms began to pass off in an hour or two, and there remained only formication in the lower extremities and epigastric pain. The tumour of the neck had almost disappeared in an hour or two. Excessive perspiration then came on, so that the patient changed his shirt six times during the night, and eight times on the following day.

There might be a doubt whether the sting was really from a spider, as it was not seen; but in the second case the insect was observed, and was a tarantula. An officer who was bald was, during the night, stung on the top of the head. He lifted his hand rapidly to his head, and crushed a tarantula. A little tumour formed very speedily round the sting; the patient became restless, and tetanic spasms came on in the legs, which did not altogether disappear for three days. These observations recal to mind the effects of the viper's bite, only they are less intense.—*Bulletin Médicale et Pharmacologique de Montpellier*, (an excellent periodical, which has just been established at the old and illustrious School of Medicine at Montpellier.)

SULPHATE OF CADMIUM.

M. Grimaud presented a memoir to the Academy of Medicine on the 17th March, relative to this remedy. According to the author it possesses as much specific power over syphilis as mercury. It also acts like tartar emetic in cases of pneumonia, and like it enjoys the property of giving rise to a pustular inflammation of the skin.—*Bull. de l'Acad.*

SUGAR IN THE FŒTAL URINE.

M. C. Bernard, to whom we owe the doctrine of the formation of sugar in the liver, has been making a new series of experiments, from which he concludes that sugar exists as a normal ingredient in the urine of the fœtus during intra-uterine life.

This interesting fact was determined in the slaughter-houses of Paris, where M. Bernard examined more than 150 fœtuses of cows and sheep, from four to seven months for the former, from six weeks to two months for the latter. In every case the urine gave evident signs of containing grape sugar; on adding a ferment, it fermented, and gave off alcohol with carbonic acid. When boiled with a caustic alkali the urine became brown, and it precipitated the tartrate of copper dissolved in potass.

APPARENT DEATH.

M. Girbal, Clinical Professor at the Faculty of Montpellier, has recorded a very striking example of apparent death, by which even the medical attendants were deceived.

A young woman, who had suffered from hæmoptysis, spasms, syncope, &c., after suppression of the menstrual flux, suddenly went off, and appeared dead. Several hours afterwards she was seen by M. Girbal. The body was cold, the pulse absent. On examining the heart for two minutes with the stethoscope, no pulsation could be detected. The globes of the eye were flaccid; no movement of the diaphragm could be detected. All the usual means failed to restore animation; yet the girl came to life of herself in half an hour afterwards.—*Bull. de l'Acad.*

MODIFICATION OF SIMPSON'S UTERINE PESSARY.

M. Valleix has, during the last two years, been engaged in investigating the effect of malpositions of the uterus—retroversion, anteversion, lateroversion, retroflexion, and an-

reflexion,—considered by themselves; and has come to the conclusion, that such malpositions exercise a most deleterious influence on the general health of the female.

The method of treatment recommended by M. Valleix is the use of a modification of Dr. Simpson's intra-uterine pessary. The treatment is to commence with the daily introduction of the uterine sound for the purpose of dilating the neck of the organ. When the sound passes with facility, and without inflicting pain into the uterus, then the pessary is to be introduced. "I have never seen," says M. Valleix, "a single accident from its employment, and the cases in which I have obtained complete success are numerous."

The modifications in the pessary of Professor Simpson, proposed by Valleix, are a great reduction in the size of the disc to which the uterine branch of the instrument is fixed, a joint between the uterine and vaginal branch, a vaginal screw, by which the latter branch can be elongated at pleasure. M. Valleix's instrument is made by M. Charrière of Paris.—*Bull. Gén. de Thérapeutique.*

CHLOROFORM IN GONORRHŒA.

M. Venot recommends injections of chloroform as an *abortive* treatment of gonorrhœa, that is to say, of arresting it in the earliest period of its development; and thinks that it will replace the nitrate of silver, which is so frequently employed for this purpose. Pure chloroform is injected by a glass syringe, the perinæum being pressed upon; the first effect is burning heat, then a sensation of cold follows. The injection does less good after the first two or three days of the gonorrhœa have passed; but, employed before that time, it almost invariably arrests it. Injected into the vagina, the results were less satisfactory.—*L'Union Méd.*

FOREIGN CORRESPONDENCE.

FRANCE.

STATE OF PUBLIC HEALTH.

The science of public health, in all its branches, has long since attained a very high degree of perfection in France, yet practice is far, very far, from keeping pace with the theory. The fact is, that the grand question of the "local origin" of disease has not attracted here the attention which it merits, or at all events has not given rise to any series of practical and useful measures. England, for many centuries so far behind the Continent in matters affecting public health, has advanced with giant strides during the last few years, and her example is beginning to produce a favourable influence in this country. Nothing stimulates a Frenchman more than to show him that he is *en arrière* with respect to England.

The improvement of the lodging-houses of the poor and of the working classes has been one of the first points to which the attention of the "Board of Health" has been directed, and already great progress has been made towards attaining that most desirable object. A magnificent range of buildings, called the "Workman's Town," has been erected in the Rue Rochechouart for the reception of families of the working classes, and more than 1500 houses in the populous quarters have been visited by the inspectors, and marked for improvement. The same official visits are being made in the provincial towns, particularly Lille and Lyons, where so many of the poorer inhabitants are condemned to pass their lives in cellars. For a due supply of water nothing has been yet done; but I have heard of a vast plan for the supply of an unlimited quantity, through means of artesian wells. It is certain that many of the manufactories have recourse to this method, as being cheaper than the ordinary; and there appears to be no reason why it should not be applied to public purposes also. A well can be sunk for 200*l.*, and would surely produce more than 10*l.* worth of water in the year. M. Guillaume has sunk a well for his new washing-house, at an expense of 240*l.*, which, for 12*l.* a year, furnishes him with as much water as the "Seine Water Company" would charge 120*l.* for. The advantage of this method for public baths and washing-houses is thus evident.

We have been generally led to suppose that the Parisians are a bath-taking people; but this is far from being the case. Warm baths here are beyond the reach of the poorer classes from their price, which is about fivepence each. There are 125 public bathing establishments in Paris, containing 4060 baths. The number of bathers during the year has never exceeded 2,000,000; which gives about two baths per annum for each individual. The average in London would, I believe, much exceed this; for a single establishment there furnishes more than 250,000 baths per annum. The appellation of the "great unwashed" will, I guess, soon be more applicable at this side of the Channel.

The French, in fact, think for a long time before they undraw their purse-strings for any public enterprise. When the honour costs little, then, indeed, they are most ready. But even for this, when applied to medicine, we should be thankful. It is well to have our services requited in any way, though it be only giving a name to a street. You remember the narrow street in the Quartier Latin, at the corner of which stands the curious old house where Marat was assassinated by Charlotte Cerday. This (the Rue du Paon) is henceforward to bear the name of Larrey. Dupuytren also gives his name to another street in the same quarter; and the wide avenue which leads up from the canal to the Hospital of St. Louis is to take the name of Richerand, who for forty years had been head surgeon to the hospital. These illustrious men required no adventitious carriage-way to posterity; yet it is always pleasant to find one's country grateful. Through what misery has many a member of our Profession to pass ere he can attain, not rank or fame, but his daily bread. Leuret, whose premature death I recorded in a former letter, was a remarkable example. His father was a baker, and refused to furnish his son with the means of prosecuting his studies beyond the first year. Poor Leuret was compelled to enter the army as a common soldier. After four years' service, chance so far favoured him that his regiment was quartered at St. Denis. His officers were kind and exempted him from mounting guard. The whole of the French army at this period was clothed in white, and the pupils at Salpêtrière have never forgotten the puny little soldier in white uniform, but bespattered from head to foot, who walked every day for years, over the muddy causeway of St. Denis, to attend the lectures of Esquirol. The privations which he then endured engendered the disease that cut him off at a later period. He used to sell his bread to buy a candle, wherewith to study during the night in a corner of the barrack, and continued this career with unshaken perseverance until Esquirol, a man as good as he was great, came to his aid by obtaining his discharge, and appointing him to a place in Salpêtrière.

The grippe, *grace à Dieu*, is on the decline, or rather has taken another route, now attacking the bowels and giving rise to troublesome diarrhœa. So very prevalent has this form become, that many physicians here begin to adopt the idea, that influenza is rather a gastric than a pulmonic affection. The diarrhœa never assumes any choleraic appearance. On this point we are as yet safe. Apropos of cholera, I may mention that M. Quetelet has published the result of his electrical observations, made at Brussels, during the first nine months of the year 1849. These observations, made in the most careful manner, with the electrometer of Peltier, show that the sum of atmospheric electricity at Brussels was much below the average during the greater portion of the year 1849. The mean value for the years 1845-48 was 53°; but, for 1849 the mean value was 39°, and this remarkable difference continued up to the month of August, after which things assumed their normal state. The annual period followed its usual course; for the annual maximum occurred, as before, in January, and the minimum in June. On the other hand, the absolute maxima and minima of each month were inferior to those of the corresponding months for 1844 to 1848.

GENERAL CORRESPONDENCE.

IRISH MEDICAL SCHOOL.

[To the Editor of the Medical Times.]

Sir,—In an editorial article of the *Medical Times* for the 22nd of March, it is stated that Trinity College had held out against all improvements in its medical department; and the opinion of the writer is given, that, of all the universities, that of Dublin has been most tardy in reform.

When I consider the wide circulation and the influence of the *Medical Times*, and also the love of fairness which distinguishes the English mind, I cannot hesitate to ask you to give me an opportunity of stating some facts, which will prove that the heads of the University of Dublin have not been neglectful of the interests of the medical student.

Within the last few years the following reforms have been adopted:—

1. The curriculum has been enlarged and improved by the addi-

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tion of midwifery, practical anatomy, practical chemistry, and medical jurisprudence, to the courses necessary to qualify for the degree examination.

2. The chair of anatomy and surgery has been separated, and a new University chair of surgery created and endowed.

3. The candidate for the degree of M.B. is examined not only by the six professors of the School of Physic, but by the professors of surgery and midwifery. In this year the regulation with respect to medical jurisprudence will come into operation.

4. Attendance on a medico-chirurgical hospital, in addition to that on the medical hospital of the School of Physic is required.

Let us now turn from the improvements in the curriculum to the academical arrangements in favour of students in arts, who are also students in medicine.

1. The examination is conducted in the English language, and is held within the walls of the university.

2. Students in arts, who are going to medicine, are exempted from certain portions of the arts course in their junior and senior sophistic years. They may omit classics in the junior sophistic; and the extra science, or classics, in the senior sophistic years.

3. An arrangement has been made by which the student in arts may take the degrees of A.B. and M.B. at the termination of his fourth medical session.

4. The use of the anatomical theatre has been granted to the professors on the foundation of Sir P. Dun; by which means all the lectures, except the clinical lectures, are delivered at the one place.

5. An extensive herbarium has been created, and one of the most distinguished botanists of the day, Dr. Harvey, appointed as curator. To this collection free admission is given to medical students.

Finally,—The student in arts and medicine is made free to one course of lectures of the four university professors, viz., those of anatomy, chemistry, botany, and surgery; so that the University of Dublin has, by this regulation, placed the faculty of physic on the same level with those of divinity and of law.

Other changes, and in the same right direction, are at this time under the anxious consideration of the Board of Trinity College. I cannot doubt that the simple detail of facts now given will vindicate the University of Dublin from the charge of neglecting the interests of its medical faculty and school, and enable it to challenge comparison, so far as medical education is concerned, with the sister universities of England. Among its professors we find the names of some of our most eminent teachers; and the Dublin University has not omitted to confer the honorary degree of Doctor of Medicine on many individuals who were not educated within its walls, but who had laboured successfully for the advancement of Irish medicine. I may adduce the names of Cheyne, of Kennedy, of Corrigan, and of Churchill, in evidence of what I now state.

I am, &c. WILLIAM STOKES,
Regius Professor of Physic, Dublin.

5, Merrion-square, Dublin.

[Anything emanating from so high an authority as Dr. Stokes must ever demand the strictest attention. As the Professor of Physic, however, seems to have fallen into the same error as another correspondent, the answer which we have elsewhere given to the latter applies equally to this communication. We have, therefore, but a few remarks to make upon it, and they are these. The reforms alluded to in the first section of Dr. Stokes' letter, Nos. 1, 2, 3, and 4, and Nos. 4 and 5 of the second section, all apply to the *school* and to the medical curriculum of education, and do not answer or apply to the statement which we made with respect to the obstacles which exist to taking medical degrees in Trinity College. Of the first three items in the second section, we were already aware; and it was to these we alluded when we stated, in our leader of the 22nd March, that "within the last two or three years, chiefly, we believe, through the instrumentality of its eminent Regius Professor of Physic, *some changes in granting medical degrees* had taken place, and *others are contemplated*," &c. Moreover, that we were rightly informed with respect to the contemplated changes in the same right direction, is proved by the commencement of the last paragraph in Dr. Stokes's letter. Instead of denying the claims, we rather boasted of the eminence, and specified the names of its most distinguished teachers.

With respect to the circumstance of the Dublin University having conferred honorary degrees in medicine on individuals not educated within its walls, we do not think that our distinguished correspondent has been so happy as in the foregoing parts of his letter. If we were to take up the list of men who have received honorary degrees from the University during the last twenty years, we think we could show upon it the names of some who had not "laboured successfully for the advancement of Irish medicine;" but who achieved the honour through other interests than those of scientific attainments. *Requiescat in pace;* their works will not follow them.—ED. *Medical Times.*]

DR. RADCLIFFE'S COMMENTARIES ON CONVULSIVE DISEASES.

[To the Editor of the Medical Times.]

SIR,—The condition of the vessels and circulation of blood in the neck, before and during the occurrence of an epileptic paroxysm, has become recently of so much greater interest and importance than it had previously been, that I am desirous of asking, through the medium of your paper, one or two questions from Dr. Radcliffe, whose "Commentaries on Convulsive Diseases" are calculated to throw much light upon that class of affections. If he would have the kindness (as I see his papers are to be continued) to state somewhat more fully his opinion upon them, I am sure that all who are interested in this somewhat new branch of pathology would be greatly obliged.

In his remarks upon "the Convulsive Attack," there is the following sentence:—"I am satisfied, from repeated observations, that the tumultuous throbbing in the neck, which is often cited as strong pulsation in the carotids, is in reality the reflex of the action of the right ventricle in the jugulars and neighbouring veins, the reflex itself being due to that half open state of the auriculo-ventricular valve which is brought about by the asphyxia before mentioned."

It appears important that Dr. Radcliffe should make known the *nature* of those repeated observations by which he became satisfied that such a reversion of the ordinary current of the blood takes place. There are some facts which appear to make it doubtful whether this is the correct inference from the commonly observed phenomena. Several times during a convulsive attack I have noticed that the external jugular vein was much distended, but by neither the hand nor the eye could any pulsation be detected in it, whilst the powerful throbbing of what I at the time believed to be the carotid arteries was plainly perceptible. If this forcible pulsation was due to the reflex action of the right ventricle upon the jugular and neighbouring veins, is it not reasonable to suppose that the external jugular would be similarly affected, especially as this has been frequently observed in cases where, from imperfect adaptation of the tricuspid valve to the auriculo-ventricular orifice, such a regurgitation of blood is allowed to take place?

I am well aware that the external jugular vein is usually furnished with a valve at its entrance into the subclavian, and with another at about the middle of its course, thus forming an exception to the rule with regard to the veins of the head and neck; but these valves are insufficient to prevent the passage of injection, or the reflux of blood, under the circumstances I have mentioned.

Has Dr. Radcliffe observed by auscultation any sign of the reflex he describes? That many difficulties still surround the subject of apex murmurs, and that negative evidence is of light importance when compared with position, I am anxious to admit; but, nevertheless, I may here say, that in two cases, during the epileptic paroxysm, where the condition of the veins was that already described, I have carefully auscultated the heart, and have been unable to detect any addition of murmur to the sounds which would indicate auriculo-ventricular regurgitation.

Supposing the throbbing in the neck to be due to this reflex action of the right ventricle upon the veins, does Dr. Radcliffe mean to express, that the column of blood in the vessels is merely impelled as *a whole* by the contraction of the heart in such a manner as to be its cause, without any distinct notion of the fluid in relation to the vessel; or is such relative motion present? The former alternative is somewhat difficult to imagine; and the latter is more in accordance with the statement, that the reflex is due to the half-open condition of the auriculo-ventricular valve. Is the throbbing due to a distinct reversion of the current of blood, or does it oscillate in the vessels? If the former is the case, whence does the right ventricle receive its supply? Is there a reversion of the course of the fluid through the pulmonary artery and veins, the lungs, and left ventricle? Or, if there is merely oscillation of the blood, by what force is it carried from the veins to the right auricle?

The Croonian Lectures, recently delivered by Dr. Marshall Hall, contain the suggestion of another means to explain the condition of the vessels of the neck. It is as unimportant which theory be true,

as it is important that we should obtain the truth; for by whatever means the more hidden conditions may be explained, no one can now doubt that the phenomena accompanying them, which all may, and to some extent must, witness, are of inestimable importance in diagnosis, prognosis, and treatment, since they are distinctly shown by Dr. Hall to be frequently "threatenings," too plain to be mistaken, and too serious to be disregarded, of apoplexy, paralysis, and mania. I am, Sir, &c.,

Leeds. J. Russell Reynolds.

POISONING BY ACONITE.

[To the Editor of the Medical Times.]

Sir,—In a trial, reported a few days since in the *Times* newspaper, of a woman for having administered such a large dose of infusion of aconite as to cause death, Mr. Herapath is made to say that he detected and isolated one-sixtieth of a grain of aconitine from the contents of the stomach. I presume that the quantity stated in the report is incorrect; but the process employed by Mr. Herapath, and the tests by which so small a portion of the matter extracted from the contents of the stomach was determined to be aconitine, ought to be laid before the Profession, and I cannot doubt that Mr. Herapath will favour his brother medical jurists with the information. I am, &c., P. B. Ayres, M.D.

Wandsworth-road.

[We think that the preceding request made by Dr. Ayres is a very proper one, especially when we have the authority of Christison for saying that "the medico-legal chemistry of monkshood has not been studied." Hitherto the recognition of the poisonous principle of the various species of aconite has been effected solely by an examination of the physiological characters of the crude and impure solutions of these plants; and by a reference to the writings of Orfila, Devergie, Taylor, and all other toxicologists of repute, it will be seen that the authors of them are entirely ignorant of the subject to which our correspondent refers. We cannot, therefore, but hope that Mr. Herapath will do the members of our Profession the service of making them acquainted with the very refined process by which he has been enabled, not only to discover the presence of the one-sixtieth of a grain of aconitine, but actually to eliminate this small quantity of an organic poison from a mass of complex materials. His process must be an important one, for, as far as we know, the alkaloid in question has hitherto been made by only one chemist in England, and that at so great a cost of labour and materials, that the poison could not be sold under the price of three shillings and sixpence per grain.—Ed. *Med. Times.*]

THE SYDENHAM SOCIETY.

[To the Editor of the Medical Times.]

Sir,—In three weeks' time the anniversary meeting of the Sydenham Society will be held. It behoves, therefore, the members to be on the alert, and to make such previous arrangements as will enable them to defeat the house-list, and to place on the list of the Council men who will do their duty honestly and fearlessly, and without that cliqueism which has disgraced this Society from its commencement. Those members of the Society who are anxious to have a thorough and efficient reform, should hold a meeting preliminary to the anniversary, at which a list of officers and council should be determined on, to be supported to the utmost, as otherwise, although the body of reformers may be numerically superior to that of the inefficient and nepotic Council, they are certain to be defeated. To ensure success they must be united, or they will be cut off in detail. I mean that, unless they have a list to oppose to the house-list,—a list of well-known, working men, such as every one can honestly support, they cannot succeed. In the house-list, one man may object to some, and others to others, each objector substituting a name or names as may best please him, but still it would happen that the greater number of the Council, if not all, would obtain the majority of votes, and thus the hopes of the reformers be again cast down. It cannot be said, that those who are opposed to the Council of this Society are factious in their opposition, and reformers merely for the sake of offering annoyance. I do not think there is another Society in the kingdom whose affairs are so badly managed; while the selection of works for publication has not been always the best, some that have been published being fit for nothing but the trunkmaker or the pastrycook. What a monstrous job was that of publishing two editions of Sydenham's works, one in Latin and the other in English; and how few are the members who could wade through one hundred pages of the obsolete trash published in the three volumes under the name of Paul of Ægina. There are several other works which should not have appeared in the collection, unless there existed a dearth of other publications; and that I know is not the case, as the Council refused to publish a most valuable collection of works on surgery, the production of one of the most eminent surgeons of the present day, although the copyright was offered them free of expense, and notwithstanding the certainty that their publication would have greatly increased the number of members,—by, as far as I can judge, at least 500. And what have they been doing during the year now nearly past? We have no means of judging, except by the issue of the volumes for which we subscribe, and of them only one has been distributed, viz., the third volume of Rokitanski's Pathological Anatomy,—an excellent work, the first volume of which, however, is still wanting. One great fault in the management of this Society is, the publication of incomplete works;—a volume one year, and another the next, thus compelling the subscriber to continue paying his guinea from year to year, unless he would have incomplete works on his shelves. When a book in more than one volume is in contemplation, surely arrangements could be so made, that all of them could be issued in one year, the earlier ones being kept back until the last volume was ready. There are many other well-founded complaints against the Society, loudly demanding an organic alteration. I would, therefore, urge the members to meet, and fix on a list of efficient officers and council, and give it their fullest support. Let them do that, and in future we shall not find ourselves within three weeks of the anniversary, with only one volume for our guinea instead of four, which could easily be given, considering the large collective amount paid by the subscribers.

London. I am, &c., A Member.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. Hodgson, Esq., F.R.S., President, in the Chair.

ON THE RELATION OF SLEEP TO CONVULSIVE AFFECTIONS.

By WM. FREDERICK BARLOW, Esq., M.R.C.S.
Resident Medical Officer to the Westminster Hospital.

The author began by observing, that, although very interesting observations on the subject would be found scattered through medical writings, it had not hitherto received anything approaching the attention which it merited. There were a variety of cases in which spasmodic movements were well known to be wont to surprise the sleeper, as might be proved by epilepsy, laryngismus stridulus, tetanus, asthma, cramp, the muscular contractions provoked by fractures, the startings, more or less severe and general, which almost every one must have experienced on falling into slumber, &c. Epilepsy would ensue just before, during, or immediately after sleep; sometimes it was quite restricted to that period, and in so remarkable a manner, that sleep and epilepsy might, in such a case, be held to be related as cause and effect. A broad distinction was to be made between the epilepsy of *imperfect* and *perfect* sleep; the former was, most probably, oftentimes owing to troubled dreams; whereas the latter was generally, if not always, referrible to physical irritation, centric or eccentric. The sleep which followed this appalling affection should be industriously watched, as it was very likely to merge into a coma, wherein other convulsions would occur. The author then spoke of the spasmodic actions which took place or could be excited in paralytic limbs during the time of slumber; this division of the subject, whereof the contribution contained some illustrations, though very instructive, had been almost entirely neglected. The author, after mentioning some indications of treatment, passed on to the consideration of the causes of the convulsions, direct or predisposing, which happened during slumber. They might be chiefly comprised under the four heads of:—

I. The state of the circulation and respiration.
II. The condition of the motor-force and muscular irritability.
III. The emotion of dreaming.
IV. The withdrawal of the will.

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The author entered largely into the two latter topics. Dreaming had a very ample, and not seldom unsuspected connexion with the event of convulsions. There was the horror of the dream, which was sometimes most intense, and there was the impression also which remained; and agitation of mind was surely never likely to be more hurtful than when the brain was congested, the irritability replenished, the passions ungoverned, the respiration unmodified, volition at rest. The *causes* of dreaming had a most wide, though in great part indirect relation, to those of convulsions. Of this the paper contained illustrations. Great stress was laid on the withdrawal of the will. The fact had been abundantly and variedly proved that, *cæteris paribus*, reflex movements, and also involuntary movements not reflex, were occasioned with a facility that was inverse to the power of volition; but it was one, how glaringly important soever, which had by no means been duly and fully applied to the solution of the nature of certain convulsions which surprised in sleep. This would furnish the key of explanation to very many of them. The author then drew the attention of the Society to some observations made by him on sleeping children; to some ingenious remarks by Professor Volkmann, which tended to support his own conclusions; to some experiments by Dr. Marshall Hall; and some others which he had recently made himself on hybernant animals; and to various phenomena to be witnessed in man, animals, and insects, which, however unlike in some respects, uniformly and emphatically concurred to show how often and how extremely a quiescent will tended to the production of spasmodic affections. Some convulsive affections of the sleeper and waker often contrasted greatly in this; in the first there could be no opposition from volition, no effort to subdue them; in the second there was, not rarely, an evident, and sometimes a successful, striving of the will. The author, availing himself of an expression to be found in the "Novum Organum," proposed to call these instances, wherein there was a manifest contention between causes of action, "*wrestling instances.*" The withdrawal of the will had an indirect relation to the convulsions of sleep, from being the cause of dreaming, the emotion of which was more perilous, speaking generally, than that of the waking state, on account of its being free from antagonism, for the dreamer was unable to reason on his delusion and so dispel it. The author dwelt finally on those convulsive affections which were benignly influenced by sleep, their temporary cure, and so contrasted as much as possible with those he had already discussed. The convulsive affections might be separated, as to kind, by a broad line of demarcation drawn between them by sleep. How often did it happen, in perplexing instances, that the influence of sleep directed the diagnosis! Emotion took much part in all those convulsive affections which were wont to subside when the mind was at rest. The reason of their being thus potently affected was easily readable in their history. The author instanced certain motor local nervous affections, paralysis agitans, mercurial erethism, and chorea, as being wonderfully under the sway of slumber, and concluded that some convulsive motions which had been observed in these diseases during the sleeping period, were owing to mental agitation, and formed no exception to that general law whereby the tranquillising effects of sleep upon them were so correctly expressed.

A considerable portion of the paper was, owing to its extent, left necessarily unread.

Dr. Mayo said there was a great deal of suggestive matter in Mr. Barlow's clever paper. He had, in the latter part of it, stated facts which went far to obviate much of that which he had advanced against the blessings of sleep in the earlier portion. There was no doubt that, when patients were in such deep sleep as to be unable to rouse themselves, in certain disorders, such as the later stages of bronchitis or pneumonia, mischief might follow the inability to expectorate; death may also and has followed the occurrence of a paroxysm of epilepsy during sleep, when assistance was not at hand. Spasmodic diseases in general are diseases without nervous power: as that is accumulated during sleep, it must be so far beneficial. The great effect of sleep in insanity had not been alluded to by the author. Its effects were wonderful as regarded a cure, and the want of it was often destructive. Mad persons could not pass more than two or three days without sleep without the certainty of death. Such an inquiry as that instituted by the author should be followed up, more especially as regarded the action of sedatives.

Dr. J. A. Wilson remarked, that, of all mysteries, sleep was the most interesting in physiology and in practice. The paper was suggestive in the highest degree; but there was one point in which there was an omission. The author had attended exclusively to the nerves, and to the practical deductions from the mechanical state of the vessels, rather than to the contents of the vessels. Congestion was spoken of as causative of sleep, but he (Dr. Wilson) was not aware that that condition of the blood-vessels had much to do with it. His own experience led him to an opposite opinion; and he believed that anæmia or an empty state of the vessels was more conducive to it. He remembered the case of a tall, living skeleton, in St. George's Hospital, the subject of diuresis, not diabetes. He passed about 16 quarts of water daily, of a low specific gravity. There was also disease of the lungs. This man was always sleeping; he awoke to relieve the bladder, and then fell asleep again. He never saw a more empty state of the blood-vessels than was found at the *post-mortem* examination of this man. He regretted that remarks had not been offered on the blood-poisons, which induce the antagonistic conditions of spasm and sleep, and he thought that when the phenomena of the one had been explained, we should arrive at a knowledge of the other. The periodicity and regularity of sleep might be connected in some way with the immense quantity of carbonic acid gas which is constantly forming in the body. Wherever there is nutrition there then is the formation of carbonic acid gas. Carbonic acid gas, in fact, is sleep. To prove this, Dr. Wilson referred to the statement made by a late suicide in France, who destroyed himself by burning charcoal; he wrote an account of his sensations from the commencement of the act up to the time when he became insensible. It appeared that he fell asleep in about an hour's time. Carbonic acid gas, then, is the agent for causing sleep, and is always in process of formation in the body. In the same manner spasm may be induced by some peculiar elements circulating in the blood, and affecting a part, not perhaps the whole, of a muscle. He regretted the author had confined his attention to the influence of the reflex action of the nerves in producing sleep; for one instance of this kind he might have had ten thousand in the blood. Cyanosis certainly had been mentioned, and sleep in that case referred to congestion; but in that disease the blood is of a blue colour, and not in a healthy condition. In looking to the theory of spasm and sleep, the volume of the gases in the blood should be taken into consideration; ether, the only remedy to be depended on in spasm,—far better than opium,—has a peculiar influence on the volume of gases in the circulating fluid. The instances of spasm and sleep produced by particular agents are innumerable. Tetanus can be caused in a moment by injecting a solution of strychnine into the blood, while it cannot be induced with certainty by any surgical injury. He had known a lady who was thrown into deep sleep by the sting of a wasp.

Dr. Mayo had not used the word congestion; but had spoken of the accumulative power of the nerves during sleep.

Dr. Webster fully concurred in the opinion emitted by Dr. Mayo, that sleep was of the greatest consequence in insanity; but Dr. Mayo had added, that if it was not induced in three or four days, the want of it would terminate the patient's life. As far as his own knowledge went, he would say that this was not the case, and he would wish to ask Dr. Mayo, if he (Dr. Webster) had apprehended his meaning rightly. The want of sleep was certainly a very serious symptom, but it was also often the first indication of insanity or of delirium tremens.

Mr. Barlow replied to the observations of Dr. Mayo and Dr. Wilson. Dr. Mayo had remarked on his not having alluded to the subject of insanity; he had only to say that his paper was entitled, on the Relation of Sleep to Convulsive Affections, and not on the relation of sleep to insanity. He had to thank Dr. Wilson for his manner of alluding to the importance of the subject. Dr. Wilson had remarked, that no sufficient allusion had been made to the condition of the blood. He, (Mr. Barlow,) in a part of the paper not read to the Society, wherein he had spoken of the causes of dreaming, had referred, so far as his knowledge permitted, to the effects resulting from changes of that fluid; but he did not doubt that Dr. Wilson, who was well known to have devoted much attention to the blood, would much more fully have observed upon its state, had the subject now before the Society been introduced by that physician. Mr. Barlow concluded by thanking the Society for the long and patient attention given to his communication.

Dr. Mayo referred to Dr. Sutherland, as an authority for the statement he had made, adding, that a very small

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amount of sleep would be sufficient to prevent bad consequences in insanity.

Dr. Heale was not satisfied that spasm was antagonistic to sleep. He had tried to kill a cat by enclosing it in a box filled with carbonic acid gas, and violent spasmodic struggling was the result. (Laughter.) He thought it important to ascertain whether spasm depended on the disordered state of the nerves, or on a change in nutrition.

Dr. J. A. Wilson would match Dr. Heale's cat with a dog that was experimented on in the Grotto del Cane. No spasms were there induced by the inhalation of carbonic acid gas, and insensibility was soon induced.

Dr. Heale said that was a case of asphyxia, the effect of carbonic acid gas in a concentrated state, and not the result that would be caused by the gradual absorption of the gas.

MEDICAL SOCIETY OF LONDON.

Dr. MURPHY, President, in the Chair.

A NEW DISEASE OF THE UTERUS.

Dr. Snow Beck placed upon the table the uterus, ovaries, vagina, and vulva of a young woman, aged 22, who died in the beginning of last September from typhoid fever. He did not see the case during life, but was present at the examination after death. She came under observation on the 23rd of July, 1850, and on the sixteenth day was considered to be convalescent, the notes on this day being, "Slept well; no return of delirium; skin natural; tongue moist, and cleaning; appetite returning; two stools in the twenty-four hours. P. 96." A few days after this a slough was observed on the sacrum, and the patient gradually sank without any appreciable cause. At the *post-mortem* examination no morbid lesion was found sufficient to account for death, except it were the state of the uterine organs. She was believed to be a virgin, and there were no signs in the breast or abdomen which could invalidate that idea. The orifice of the vagina was small, scarcely admitting the index finger, and surrounded by a projecting fold of mucous membrane, which was considered to be the hymen. The vagina was contracted and rugose, as in virgins; the orifice of the uterus smooth and open, admitting the end of the index finger to the root of the nail; the lips large, and projecting into the vagina. On withdrawing the finger, the end was observed to be coated with adhering epithelium. Examined from the abdomen, the uterus was found large, rounded, plump, as in a woman who had borne children; also antiflexed against the bladder. After the removal from the body, the vagina was seen of a deep claret colour, whilst the epithelium could be readily separated from the mucous membrane as a continuous layer, having the denuded and deeply coloured membrane beneath. Here was a puzzling condition to meet with in a supposed virgin. Being unable to solve the difficulty, the nurse was asked whether anything unusual was observed about the patient during the illness, when she replied, that during the height of the fever she was always talking about her baby, and saying she could not help it's dying. Put upon this scent, it was soon discovered that she had recently had a child, thus readily explaining the anomalous conditions met with. After the removal of the uterus, it was carefully examined. With the exception of an increased number of bloody points on section, it did not present any evidence of inflammation. No fibrine, exudation corpuscles, or other inflammatory result was found, nor any heterologous deposits; yet the substance of the organ was enlarged and increased in thickness. What could this arise from? On examining a portion with the microscope, it was found to retain, to an unusual degree, the structure which is observed in the organ at the ninth month of pregnancy, with this exception, that the muscular fibres composing it were smaller in size. Compared with a portion of another uterus, which had been impregnated, the fibres were found to be larger than in that specimen; or, in other words, that the condition of the muscular substance of the uterus under examination was midway between the tissue of the gravid uterus at nine months and the tissue of a healthy uterus after impregnation, whilst no other morbid condition was noticed. These facts pointed to the conclusion, that this affection had its origin in an arrest of the due absorption which naturally follows parturition.[1] Sketches of the different microscopical appearances were shown to the Society; and Dr. Beck observed, that they offered another example of the error of Dr. Bennet, when he stated that the body of the uterus was void of cellular tissue; for in each preparation taken from the centre of the body of different uteri, cellular tissue was clearly shown to exist. Dr. Snow Beck observed, that the morbid specimen presented many interesting points of view. It occurred in a case of typhoid fever. Was the inflammation of the vagina and vulva a sequence of this fever, or only an accidental concurrent disease? Was it, again, the cause of the unexplained depression and subsequent death of the patient? Unfortunately, none of these questions could be determined in the present case. An interesting case of a similar character is recorded by Dr. Hughes, in the *Medical Times* of March 29; but in that the patient presented symptoms of uterine affection on the first day of observation; whilst no history is given to show how long these symptoms had been present. We are consequently unable to decide whether the fever occurred in a female already suffering from inflammation of the vagina, or whether it was a secondary affection from the typhoid fever. The preparation offered another example of the fallacy of the dogma of Dr. Henry Bennet, that an open condition of the os uteri was "pathognomonic" of inflammation and ulceration. Here no inflammation of the uterus was present; yet the orifice admitted the point of the finger. It further showed, that the open condition depended on a state of the organ, in no way related to the inflammatory process. In is, indeed, impossible to conceive how inflammation can open the orifice; for this process causes swelling in every direction; and especially in that where least resistance is met with. It hence causes obstruction to the orifice, and not the patent state which, when present, depends upon some new deposit taking place in the walls of the organ, or, as here shown, from an increase of the muscular structure, the consequence of a deficient absorption following parturition. This preparation also demonstrates the fallacy of the statement which has been made, that the condition of the uterine organs cannot be determined after death, for here, after soaking in preserving fluids for six months, the morbid conditions are still clearly discernible. The ready separation of the epithelium is also worthy of note, as it might be removed in the handling during a *post-mortem* examination, and give rise to the erroneous idea, that this was a morbid process, instead of a mechanical one, and favour the notion of the frequent existence of ulceration. An important practical question also arises out of this case,—Can this condition of the uterus, which has been mistaken for that of inflammation and ulceration, be prevented by the management of the female during parturition? From theoretical reasoning, he was led to adopt the plan of administering a dose of ergot of rye and borax combined with hyoscyamus, after the birth of the child, with the intention of producing complete contraction of the organ, and thus, by shutting off the blood no longer required, to ensure a due absorption of the lately gravid organ. This plan had been eminently successful so far as he had tried it; but whether this is only an accidental sequence of fortunate cases, or the result of the practice adopted, must be determined by further experience.

Dr. Henry Bennett read a paper on the

DIAGNOSIS OF INFLAMMATORY DISEASES OF THE CERVIX UTERI,

AND ON THE USE OF POTASSA FUSA OR POTASSA CUM CALCE IN THEIR TREATMENT.

He began by stating that it was not his intention to enter at length into the consideration of the symptoms of inflammatory disease of the neck of the uterus, inasmuch as he had done so in his work on "Uterine Inflammation," but merely to give a brief and clear synopsis of the symptoms and moral considerations which guided him in the use of surgical means of examination and treatment. The discussions which had taken place recently in their Society rendered this a positive duty on his part, as his name and authority had been appealed to by a member as a sanction for his surgical scrutiny of the uterine organs of many hundred females who had no uterine disease, and that in order to discover a comparatively limited number of instances of disease so slight as to give way to injections and general treatment alone. He took this opportunity of most emphatically and most solemnly repudiating any connexion, either as an author or as a practitioner, with such unheard-of and such unwarrantable practice. The rules of diagnosis which he had laid down were meant to lead to the recognition of positive disease, and not to sanction the satisfaction of a morbid curiosity as to the state of organs which there is no excuse for interfering with, and bringing into view by surgical means, unless we have the conviction that they are the seat of disease, and of disease not to be cured by other than surgical appliances. Moreover, he had no hesitation in stating that they did lead to such results in his hands, and in those of all the conscientious, scrupulous observers with whom he came professionally in contact. He did not himself make an instrumental examination of the uterine organs once in six months without finding sufficient disease to justify the step. It was stated by

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many that these means of investigation were liable to abuse, and had been abused, and in this statement he agreed. The possibility of such abuse, however, would be best prevented by the heads of the Profession laying aside all prejudiced and senseless opposition to what was the truth, by their ceasing to judge of new facts by past experience, which was valueless, and by their joining him in his endeavour to point out the rules which ought to guide practitioners in having recourse to means of diagnosis and treatment, without which uterine pathology must remain an inextricable mass of error and confusion. The mucous membrane lining the cervix uteri and its cavity, a highly organised membrane, and one abundantly supplied with mucous follicles, was extremely liable to inflammation and ulceration. The slighter and more fugitive forms of inflammation to which this mucous surface was liable, no doubt gave rise only to slight and fugitive symptoms, and were consequently scarcely ever seen by observers who, like himself, never even thought of bringing the organs in question into view unless the local symptoms were intense, or, being slight, were intractable to ordinary treatment, and connected with equally intractable general symptoms. Owing, no doubt, in a great measure, to the circumstance of the molimen hæmorrhagicum of menstruation generally aggravating and feeding the diseased condition, inflammation in this region, although, too slight in the first instance to be noticed, often became confirmed, and ended in ulceration, when a host of decided local and general symptoms generally appeared. The tendency of confirmed inflammation of this mucous membrane to end in ulceration was so great, that out of 243 cases of inflammation, attended with decided uterine symptoms, treated by him at the Western General Dispensary, in 222 slight or severe ulceration was present. The local symptoms were, pains in the lumbo-sacral, ovarian, hypogastric, and inguinal regions, as also pains down the thighs and legs; sensations of weight and bearing down, accompanied by more or less difficulty in standing and moving; derangement in the menstrual function, assuming the form of dysmenorrhœa, menorrhagia, amenorrhœa; vaginal discharges; constipation or diarrhœa; irritability of the bladder, &c. The general symptoms were principally dyspeptic, neuralgic, and hysterical conditions, entailing secondarily, defective general nutrition, and consequent debility and anæmia. When all, or nearly all, the local symptoms enumerated existed, the examination of the uterine organs was at once indicated and sanctioned, as it was all but certain, not only that disease existed, but that it was of long standing, and had produced structural changes which could only be remedied by local surgical treatment. If one local symptom was present but in a marked and constant manner, with or without general symptoms, the existence of disease was very probable, but no examination was warranted until ample local means, such as injections and proper general treatment, had been tried. Lastly, the mere existence of disordered general health, of depraved functional activity, of dyspepsia, hysteria, anæmia, &c., in the absence of uterine symptoms, was no proof whatever of the presence of uterine disease; although the lengthened duration of these conditions, and their proving intractable to the usual treatment, ought to lead us to minutely scrutinise verbally the state of the uterine functions. By thus carefully weighing the symptoms, general and local, and by submitting doubtful obscure cases to the test of general and non-surgical local treatment, a conscientious and scrupulous practitioner need seldom, if ever, make an unnecessary physical examination. Even when such an examination was deemed advisable, the use of the speculum ought never to be thought of until a careful digital investigation had confirmed its necessity. The morbid conditions of the body of the uterus, as to size and position, could only be recognised by the finger, the speculum giving no information; and the finger of the practitioner, with whom it had been educated by the eye, was also the safest guide as to necessity for further examination. If the os was found open, so as to admit one or two fingers, or even the tip of one finger, if the cervix were enlarged and indurated, or if its surface were velvety and soft, the use of the speculum was indicated. The open state of the os was a very valuable symptom, as it was nearly always the evidence of ulceration occupying the surface, or of inflammation penetrating the cavity of the os uteri. If a speculum examination was then decided on, the cervix ought to be brought fully into view, so as to reveal even its vaginal attachments, and in a sufficiently good natural light to show even a speck of dust on any part of its surface. If, moreover, the lips were morbidly open, they should be separated by a bivalve speculum, with the assistance of the uterine sound, so as to allow the eye to penetrate into the os as far as possible. The lesions thus brought to light were the lesions which characterise mucous membrane similarly diseased in all parts of the human economy—those produced by inflammation and ulceration. He, and the continental pathologists who had preceded him, had described, under the head of granular inflammation, chronic inflammation of the cervical mucous membrane unattended by any solution of continuity, and characterised by the hypertrophied condition of the mucous follicles strewn over its surface, which gave it a kind of strawberry appearance. They also gave the name of ulceration to all solutions of continuity, the result of morbid action, and characterised by the existence of pus or sanies secreting erectile granulations, such as are formed on all sores and wounds healing by second intention, and that whether the granulations were so microscopic as to constitute a mere abrasion, or superficial ulceration, or so large as to constitute a luxuriant fungous sore. Such conditions responded to and tallied with the definitions of ulceration given by all classical writers. Some of his opponents had denied that the lesions found in this region were ulcerative, and had endeavoured to make the Profession believe that they were merely forms of "granular inflammation." They had never, however, deigned to explain what they meant by granular inflammation, or given a definition of it. If it was their intention to repudiate the established nomenclature of surgery, and to give to what had hitherto been called ulceration the name of granular inflammation, he for one would not object to the change, provided it could be established that such a change was desirable and necessary. But, in the meantime, he repudiated the term as thus applied. In a communication recently read before the Society, it had been stated, that there was no proof before the Profession that ulceration ever existed in the virgin. Although he was fully aware that he did not, unfortunately, possess the confidence of the author of the paper alluded to, he was surprised to find such a statement made, considering the publicity he had given to the case furnished to him by Mr. Anderson, his late colleague at the Western Dispensary. It would be seen by the examination of the uterus of Mr. Anderson's patient, a young female of eighteen, who died of acute disease, with an intact hymen, which uterus was in the hands of the members, that a large inflammatory ulcer occupied the os and its vicinity. Even if his experience and statements were repudiated, this case ought to have brought conviction to the mind of the practitioner to whom he referred. He would take this opportunity of again asserting, as he had ever done, that the physical examination of a virgin female could only be warranted by severe and intractable disease, and ought always to be looked upon as a last resource,—as one not to be contemplated until after months or even years of unavailing general and non-surgical local treatment. Indeed, as he had stated in his work, it ought not to be taken by any practitioner on his own responsibility, unless his position as a consulting authority in female diseases warranted his so doing. The rules which guided him in the treatment of the local element in these inflammatory affections of the neck of the uterus might be stated in a few words—it was the treatment followed in all chronic inflammatory diseases situated in a position attainable by surgical means. If acute or sub-acute inflammation were present, it ought first to be subdued by antiphlogistics and astringents; and if the morbid action still persisted, it should be modified and converted into healthy vital action by direct stimulation of the diseased tissues. This indication was obtained, in successive stages of intensity, by the nitrate of silver, solid or in solution, by the mineral acids, and, lastly, by the actual cautery and potassa fusa, or potassa cum calce, which he preferred. Potassa cum calce was first introduced as a means of stimulating unhealthy uterine sores, and of melting induration in this region, by M. Gendrin, of Paris. When, however, he himself left Paris, nine years ago, it had not been adopted by other practitioners. He could claim the merit of having introduced it to the Profession here, and of having greatly simplified its action and use by running it into free cylinders, which could be used as easily as those of the nitrate of silver, and with nearly as little risk. He had used it in scores of cases, for fourteen years, without accident, and did not consider there was any reason for apprehension, provided the operator was skilful and cautious. At the same time, he never applied it to *destroy* indurated tissues, but merely to set up eliminatory inflammation, under the influence of which the indurated parts softened and melted. When applied to the os, care ought to be taken that the orifice of the cervical canal did not subsequently close too much. He had had several cases from the country, treated by other practitioners, in which the os uteri was all but closed for want of these precautions. He had never found any difficulty in redilating the narrowed os; but it was better to prevent such a result occurring than to remedy it when produced.

Dr. Wagstaffe observed, that on a former occasion, it seemed, he had been understood to say, that ulceration never affected the os uteri. This was a mistake; he did not mean to imply any such thing, for, in fact, he inferred from analogy

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that the mucous membrane of that part was as liable to inflammation, congestion, and ulceration, as in other parts of the body, and that, too, at any period of life, even in the virgin uterus, although in the latter case ulceration occurs much more rarely than after pregnancy. Dr. Bennet had not drawn any definition between mere erosion and ulceration. He had himself found it very difficult to diagnose between them, and he trusted that Dr. Bennet would explain the difference between them in his reply. Dr. Snow Beck had mentioned, as a diagnostic symptom between inflammation and simple irritation of the part, the separation of the epithelium, when seized with a pair of forceps. This statement was opposed to the views of Hasse, Rokitanski, and others, who say that in catarrhal inflammation serum is thrown out between the true surface of the mucous membrane and the epithelium, and that the latter can be taken away in a patch. If, then, this can occur in catarrhal, as well as in simple inflammation, it cannot be looked upon as a diagnostic sign of the latter disease.

Dr. Snow Beck remarked, that Dr. Wagstaffe had mistaken his meaning. He merely stated, that with the deep claret colour and thickening of the mucous membrane, and the ready peeling off of the epithelium, no pathologist could doubt that these were signs of previous inflammation of the part. The reference which he made to a similar condition of the epithelium of the skin, after the application of a blister or an attack of erysipelas, showed that he meant to connect this state with well-known phenomena; but it had never been before distinctly shown to occur in the vagina, as a sequence of inflammation. Referring to the paper which had been read, he said that he must first join issue with Dr. Bennet upon some anatomical statements. It had been said that the canal of the cervix uteri was lined by a thick, highly vascular mucous membrane, and that the other organs of the body sympathised with the morbid actions of the uterus, in consequence of their connexion with each other through the sympathetic nervous system. Both of these statements, he said, were erroneous; but as they were anatomical points, which could not be solved by discussion, he would only record his dissent from them. In regard to the statement, that extensive inflammatory disease might exist in the uterus for years, without giving rise to any symptoms or derangement of the general health, it was, he said, contrary to the result of clinical experience; the error which led to this remark being the non-recognition of the condition of the uterus, which he had just brought before the Society. This condition may exist for years, with only trifling annoyance to the female; but, on the occurrence of slight additional inflammation, it became the cause of great disturbance. The enlarged condition of the womb had been described as inflammatory hypertrophy; a most singular term, considered to indicate the evidence of long-continued previous inflammation. There could not be a greater fallacy, as shown by the careful examination of the uterus at present on the table, where no evidence whatever existed of any inflammatory process. He must again differ *in toto* from the author, in the statement that the existence of any one marked symptom of uterine affection was sufficient to diagnose the existence of ulceration. This was a serious practical error. Who would admit that a pain in the back or side of the stomach, or inside of the thighs, occurring in a virgin female, was sufficient to warrant the division of the hymen and the introduction of the speculum? They might arise from a transient and trifling attack of inflammation of the uterine organs, which would pass away by rest and gentle antiphlogistic remedies. To take a case from Dr. Bennet's published writings: A young unmarried lady, about 25 or 26, suffered from excruciating pain during the first day of menstruation, and a slight falling off of the general health; this was considered sufficient to sanction the use of the speculum. What practical man would agree with such a proposition? The publication of such cases as these showed that Dr. Bennet used this instrument in a very unwarrantable manner. And this led him to consider the evidence of the existence of ulceration in the virgin female. It rested chiefly upon a single *post-mortem* examination in the whole records of medicine; and this case, as detailed, contained within itself the most serious contradictions. It was stated, that previous to the death of the female she was in rather robust health. Now, he would ask any practical man whether such a thing was likely to occur; whether they thought that such extensive inflammatory disease could exist without affecting the general health of the female. He denied that there was any case on record that would warrant such a conclusion: and he further had the evidence of Dr. Bennet himself, in support of this view of the subject, for he distinctly states, that extreme debility and great constitutional disturbance mark this affection. The examination of the drawing given of the disease leads to the conclusion, that the organ represented is not that of a virgin, and this conclusion is supported by the examination of the preparation itself. The body is rounded and plump, as after child-bearing; it wants the flat, thin state which characterises a virgin uterus; the orifice is open, as after parturition, but does not present, so far as he could see, any signs whatever of ulceration. Of course, this was speaking from a hasty examination, looking through a dirty glass jar, upon a preparation half covered with muddy spirit. But, as far as he could judge, there was no evidence of any ulceration. He would be most glad to have an opportunity of carefully examining the preparation, and would faithfully report to the Society, at its next meeting, the results arrived at. The irregular appearance of the orifice, which was considered to be the result of ulceration, depended upon the depressions between the terminations of the arbor vitæ of the uterine canal, and not upon any morbid process. This was well shown in the preparation which he (Dr. Beck) had placed before the Society. The result of this examination, then, was, that the discovery which Dr. Bennet thought he had made, resolved itself into his having described the natural structure of the part as a result of disease. To return to the open condition of the orifice as a sign of inflammation and ulceration, the preparation on the table proves that this statement is not founded on correct observation. The explanation of the facts given by Dr. Bennet was extraordinary. He says, it is owing to the paralysis of the submucous muscular fibres, in consequence of the inflammation. He would accept this explanation, and see to what result it led. The submucous muscular fibres are paralysed—what becomes, then, of the other muscular fibres?—they were not paralysed. Here a paralysed muscle is to exercise a distending force, and to overcome a muscle which is not paralysed. The proposition was absurd. He entirely disagreed with the author as to the treatment by the use of potassa, and gave a case, from short notes, in support of this opinion. A healthy young woman, aged 26, was attacked with uterine symptoms after the birth of her first child. She applied at an hospital, and was placed under the care of an obstetric physician. During her attendance she became pregnant, and was attended in her confinement by one of the assistants of the physician. One month after her confinement, she was examined with the uterine sound, and told the orifice of the womb was closed. Six weeks after her confinement she was again examined with the sound, which caused great pain. At the end of another week potassa was applied, and again the following week, causing excruciating pain. In a little more than two months after her confinement, the orifice of the uterus was cut open, and the potassa again applied, causing dreadful agonies. Soon after this she had to go to the gentleman's house who attended her, to have the uterine sound introduced every morning. This caused dreadful pains, from which she did not recover until she had to go again. A week after this the orifice was said to be re-closed, and it was again cut open. "The pokers," as they were facetiously styled, were again resorted to for another week, when the orifice was said to be reclosed, was cut open, and potassa again applied, with the same result as before. The catamenia shortly afterwards appeared, and caused such agony that she could neither stand, sit, nor lie for twenty-four hours. After they had passed, the orifice was still more closed than ever, and the "pokers" were exchanged for catgut bougies; but feeling unable to bear the continued tortures, failing in health, and with her uterine symptoms all aggravated, she declined all further treatment. He (Dr. Beck) saw her on June 13, 1850. On examination, the vagina presented nothing worthy of note. No lips or orifice of the uterus could be discovered, the situation in which they ought to have been found being marked by an irregular, slightly depressed cicatrix. The body of the organ was enlarged, smooth, and tender to pressure. By the aid of the speculum, an irregular cicatrix was found where the lips of the uterus ought to have been, no orifice being perceptible, yet during the examination a small coil of thickened mucus and blood was protruded from a very small hole in the centre of the

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cicatrix. Dr. Beck remarked that this case formed the best commentary on the very improper practice which had been recommended by the author of the paper, and required no further remarks.

The President inquired of Dr. Beck the name of the hospital where these things occurred, and of the physician under whose care the female was.

Dr. Snow Beck declined furnishing the information asked for by the President. His object was to expose a certain system of treatment now in force in cases of uterine disease, and not to make personal attacks. He could not, therefore, give the name either of the physician or of the institution.

The President then called upon the gentlemen present to dismiss the particulars of the case altogether from their minds.(a)

Dr. Crisp, "as an old member of the Medical Society of London," protested against gentlemen alluding to the works they had written, or to previous papers, and also to their coming down ready primed with matter and cases, to comment on the communication of the evening. He agreed with Dr. Bennet as to the existence of ulceration or granulation; but he did not think the patulous condition of the os uteri so safe a guide to the presence of inflammation as Dr. Bennet seemed to believe. He had had lately a case of anteversion of the uterus, with patulence of the os, but no inflammation.

Dr. Tilt observed, that a few weeks since Dr. Allen, of the Marylebone Infirmary, had sent him a uterus, the inferior lip of the os of which presented, as he and many others thought, marked evidence of ulceration. This was also Mr. Quekett's opinion, until a portion of it had been placed in the field of the microscope, when it was found not to be ulceration, but simply erosion. There was not any rupture of vessels. He mentioned this case to show the difficulty of distinguishing between erosion, granulation, and ulceration. These are certainly different states of the part, but they require the same plan of treatment. He always regarded a patulous condition of the os uteri as indicative of there being something wrong in the parts concerned. He did not quite agree with Dr. Bennet in his description of ulceration, but he did fully in the treatment he recommended, and he believed that the potassa cum calce was one of the most valuable remedies that could be applied in such cases, not to destroy structures, but to modify their diseased action.

Dr. Barnes said, there were two points especially deserving notice: first, with respect to the diagnosis, as regarded the patent condition of the os, as indicative of disease; and, secondly, connected with the therapeutics, the application of potassa fusa in treating the disease. The patulous os uteri is a very common occurrence in uterine diseases, and he (Dr. Barnes) did not agree in the suggestion, that it was always indicative of inflammation of the parts. It is present in fibrous tumour of the uterus, a case of which he had seen that morning, with the os so patent that he could pass his finger in the whole length of the cervix. The weight of the tumour had caused prolapsus, and thus brought the organ nearer the vulva. Patency of the os is met with also in the hypertrophied condition of the cervix,—a state the result of previous inflammation, perhaps, but not accompanied with inflammation at the time. It is also found in cases of a generally relaxed state of the parts, and of the body altogether. Dr. Beck had alluded to Dr. Bennet's advocacy of the speculum in virgins, in whom there were undoubted symptoms of ulceration, and had condemned its use. This had surprised him, as Dr. Beck had himself used it in a case which he gave them about a fortnight since. With regard to potassa fusa, he had employed it in four cases, not only without ill effects, but with the greatest possible benefit, the hypertrophy vanishing and the patients recovering.

Dr. H. Bennet, in reply, said he could not draw the distinction asked for by Dr. Wagstaffe between erosion and ulceration; he looked upon erosion as only a minor state of ulceration. With regard to the question of anatomy, he wished to say, that in his writings he (Dr. Bennet) had not brought forward any new microscopic investigations, but had relied on the standard works in which the anatomy of these parts was described, and on that had based his views of disease; but he was willing to remodel them as soon as different views of anatomy were fully proved and demonstrated. It was very clear that he could not convince Dr. Snow Beck, and he would leave the matter to the Profession. He would be happy to accept Dr. Beck's discoveries, and would be ready to apply them to his cases and his practice. Let him prove his statements, and then he (Dr. Bennet) would modify his views accordingly. He could not understand Dr. Beck's objection to his theory respecting the connexion of the sympathetic with the uterus. He acknowledged the correctness of Dr. Beck's statement respecting the paucity of nerves of the uterus, in opposition to Dr. Lee, who considers them to be very numerous.

(a) The President certainly exceeded his duty in this. Dr. Beck's conduct was strictly in accordance with medical ethics, which empower him to use a case of malapraxis for the instruction of, or as a warning to others, but on no account ought he to disclose the name of the medical man whose error in diagnosis, or mistaken views of treatment brought the case under notice. Dr. Beck's refusal to give the name of the physician was perfectly justifiable. The case, as he told it, rested, in consequence, for its credit on his veracity.

PATHOLOGICAL SOCIETY OF LONDON.

Dr. Latham in the Chair.

Mr. Gay exhibited the right kidney of a woman, aged 62, which he found in front of the lumbar vertebræ, opposite the bifurcation of the aorta, and reaching within an inch and a-half of the fundus of the uterus.

The ureter emerges from the centre and front part of the organ (the pelvis) in a branched form, the calices having united to form three tubes, which, after a short course, coalesce. It then passes along a sulcus in the lower border of the organ to its destination. The principal veins commence with the ureter, but ascend, taking exactly the opposite direction, and, after leaving the upper border of the kidney, where they are also situated in a groove, they unite, and enter the cava as a single vessel.

The arteries, four in number, enter the kidney singly at its back part, or on the side opposite to that from which the vein and ureter emerge. Two of these arteries arise from the aorta, near its termination; and the other two from the right common iliac, each being accompanied by a small vein.

Mr. Toynbee exhibited a microscopical preparation of new vessels developed on the surface of inflamed serous membrane.

The preparation consisted of a portion of the dura mater, which had been removed from a man ten days after he had received a fracture of the cranium. In some parts fibrine was effused on the surface of the arachnoid; in others, there was acute inflammation only. The blood-vessels presented two different conditions: one consisted in the development of tortuous and dilated branches, the communications between these and the original vessels being very distinct; other vessels, which appeared to be developed in the substance of the fibrine, formed a very complicated net-work, and their continuity with the parent vessels was not so obvious as in those first alluded to.

Mr. Coulson exhibited a specimen of fungoid disease, which he had removed from just above the left groin of a man 61 years of age. About seven months ago he perceived two distinct swellings, each the size of a hazel-nut. They increased rather rapidly, without pain. There was sensible fluctuation, and the skin was discoloured. The grooved needle was inserted into the prominent part of the swelling, and nothing but blood escaped. After this the skin quickly ulcerated, and presented a fungoid appearance. The general health was not affected. The tumour was about the size of a female breast. It consisted of a subcutaneous cyst, 1¼ inch in diameter, filled with soft, vascular growths, of very irregular form and variable size, corresponding in appearance to the pedunculated bodies described by Dr. Hodgkin as growing from the interior of cysts. The secondary growths had filled the cysts to distention, and, the skin above it having ulcerated, they projected externally in the form of a fungoid growth, of a dark blood-red colour. The direct continuity of the soft vascular bodies forming the external growth, with the pedunculated bodies filling the subcutaneous cyst, was easily demonstrated. Connected with the base of the subcutaneous cyst was a solid mass of a firm adventitious growth, having on section very much the appearance of a schirrous mass. The solid part, when viewed under a microscope, presented elongated, spindle-shaped, and caudate cells in abundance, and a few spherical cells. The nuclei were distinct in all. The growths in the cysts presented spherical cells of different sizes, in great numbers,

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with one, two, or three distinct nuclei. The elongated and spindle-shaped cells were comparatively scanty. He also exhibited a specimen of epithelial cancer of the penis, which he had removed a few days before, and observed, that in a similar case, which he had exhibited to the Society about nine months ago, the disease had not returned.

CHEMICAL SOCIETY.

Dr. DAUBENY, President, in the chair.

The following papers were read:—

On the Composition of the Waters of the Dee and Don at Aberdeen, with an Investigation into the Action of Dee Water on Lead-pipes and Cisterns. By John Smith, M.D., Fordyce Lecturer on Agriculture, and Assistant in the Chemical Laboratory of Marischal College.

The subject of this paper is discussed under the following heads:—

1. *General Characters of the Districts drained by the rivers Dee and Don.*—The sources of the Dee lie amidst lofty granite mountains. The length of country traversed by it is about eighty miles, or sixty-five miles in a straight line, and the extent of country which it drains about 900 square miles. Its banks are gravelly, its flow pretty rapid, and the alluvial deposits few, and of limited extent. From the small proportion of clay and peat in its course, its waters are usually quite clear. The water for the supply of Aberdeen is taken from the Dee about two miles from its mouth, and quite beyond the reach of the tide water. It percolates through the gravelly sides and bottom of the river into drains, and is there pumped to the highest level of the town. It is distributed through iron mains, and taken into the houses by small lead pipes, to which lead cisterns, generally of small dimensions, are commonly attached. The supply is constant, and amounts to about one million gallons per day. The sources of the Don lie immediately north of the districts drained by the Dee, and comprise a less extensive area, including mossy ground, encircled by granite hills. Its course is about sixty miles in length to Aberdeen, or about forty-five miles in a straight line. The mountains among which it runs, contain more limestone than is found in those about the Dee Hence the waters of the Don contain more lime, and are more coloured by peat than those of the Dee.

2. *Composition of Dee Water.*—A specimen taken some miles up the river, on the 24th September, 1850, three days after heavy rain, was found to contain in the gallon four grains of solid matter, consisting of

	Grains.
Carbonate of lime	0·850
Sulphate of lime	0·121
Sulphate of magnesia	0·323
Chlorides of potassium and sodium	0·670
Phosphates of lime and iron	0·080
Silica	0·140
Organic matter and loss	1·816
	4·000

This specimen had a brownish tint, whereas the Dee water is generally colourless, and in other respects it was less pure than usual. A second specimen, taken when the river was in its usual clear and transparent state, yielded three grains of solid matter from the gallon, of which only 0·4 of a grain was organic matter, or volatilised by heat.

3. *Composition of Don Water.*—Two specimens of this water were examined, one taken about a mile from the mouth of the river, and the other about thirty-five miles higher up. The former was found to contain 8·65 grains of solid matter in the gallon, of which three grains consisted of organic matter; the latter contained five grains of solid matter in the gallon, of which 1·2 grains were organic. The composition of the solid contents of a gallon of the first specimen is thus represented:—

	Grains.
Carbonate of lime	2·18
Sulphate of lime	0·17
Sulphate of magnesia	1·00
Chlorides of potassium and sodium	1·32
Phosphates of lime and iron	0·38
Silica	0·60
Organic matter	3·00
	8·65

4. *Action of Dee Water on Lead.*—About forty trials were made with the view of ascertaining the action of Dee water on the pipes through which it is conveyed to the houses. These pipes vary from twelve to one hundred yards in length. In some instances no indications of the presence of lead, in the water which had passed through the pipes, were found; in others, however, small quantities of lead were detected in solution. The quantities varied from less than 1-100th of a grain to about 1-20th of a grain of lead in a gallon of the water. From an inquiry into the influence of the use of this water upon the health of the inhabitants of Aberdeen, in connexion with what has been observed elsewhere, the author concludes that less than 1-20th of a grain of lead in the gallon of water produces no deleterious effect upon the health of those using the water for dietetical purposes, and that the limit of the deleterious action is between 1-10th and 1-20th of a grain of lead to the gallon of water.

On a Peculiar Property of Ether and some Essential Oils. By Dr. C. F. Schoenbein. The property referred to by the author is similar to that which phosphorus has been long known to possess, when put, under certain circumstances, in contact with pure oxygen, or with atmospheric air, of developing a highly oxidising agent, which has been called ozone. The author finds that if a little pure ether be put into a bottle filled with pure oxygen or atmospheric air, and exposed to diffused light, the bottle being occasionally shaken, the ether, after the lapse of four months, will have acquired new properties. Although producing no action upon blue litmus paper, it will discharge the colour of solution of indigo, convert pure phosphorus, when immersed in it, into phosphorous acid, eliminate iodine from iodide of potassium, change pure sulphate of protoxide of iron to the basic and acid sulphates of the deutoxide, transform yellow prussiate of potash into the red salt, convert sulphuret of lead into the sulphate, &c. Similar effects are produced with oil of turpentine and oil of lemons when treated in the same way as the ether. The author expresses an opinion that the property which these substances thus acquire, is due to the presence of oxygen in a chemically exalted condition.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 11th inst.:—

BAKER, BENJAMIN, Broadway, Worcestershire.
BIRD, JOHN JAMES, Market Rasen, Lincolnshire.
BYWATER, JOHN HALL, Knottingley, Yorkshire.
HEAD, EDWARD ABRAHAM HANCOCK, Stoke, Plymouth.
HARTSHORNE, FREDERICK HEZEKIAH, Broseley, Salop.
ROUSE, JAMES, Walham Green.
ROWLAND, WILLIAM JOHNSON, Wargrave, Berkshire.
SPENCER, THOMAS, Earl Shilton, Leicestershire.
TICKELL, JOHN HENDER, East Looe, Cornwall.
UMPHELBY, EDMOND, Belstead, Suffolk.

At the same meeting of the Court, Mr. William Ross passed his examination as naval surgeon. This gentleman had previously been admitted a member of the College, his diploma bearing date December 23, 1844.

THE COLLEGE FELLOWSHIP.—The Court of Examiners of the Royal College of Surgeons met on Monday and Wednesday se'nnight for the examination of candidates for the Fellowship. The following are the questions on anatomy and physiology which were submitted to the candidates on the 7th inst., viz.:—

1. Describe the structure of the wrist-joint. State what tendons, vessels, and nerves cross the joint on the palmar aspect; describe their position and relative situations.

2. Describe the duodenum, specifying its situation, course, and relations; its component structures, and the sources of its blood-vessels and nerves.

3. Describe the course and relative situation of the subclavian and axillary arteries on the right side; mention the branches given off by them; state by what parts the subclavian, external to the scalenus, is covered.

4. Enumerate the blood-vessels and nerves proceeding to the lower extremity, and describe their relative situations and connexions at their exit from the pelvis.

5. Describe the vessels and nerves of the orbit, the sources whence they are derived, the apertures through which they enter the orbit, and their distribution.

6. Describe the position and relative situation of the viscera contained in the female pelvis, the peritoneal reflexions and ligaments by which they are supported.

THE JACKSONIAN PRIZE.—This prize, founded by the late Samuel Jackson, Esq., the adjudication of which is in the hands of

the President and Council of the Royal College of Surgeons, has just been awarded by them to Mr. Charles Toogood Downing, M.D., of Great Russell-street, Bloomsbury, for his Essay on "Neuralgia; its various Forms, Pathology, and Treatment."

APOTHECARIES' HALL.—The Court of Examiners resolved April 10th, 1851:—

I. That a preliminary examination for the junior students of the Medical Profession would be desirable as an important auxiliary to their subsequent professional studies.

II. That such examination should comprise an inquiry into the students' knowledge of the Latin and Greek languages, and of the elements of mathematics.

III. That students should be admissible to such examination, at any period from the date of their apprenticeship to the completion of the first winter session of their curriculum.

IV. That such examination should in the first instance include the following subjects, viz.:—

1. The First Book of Virgil's Æneid, and Cicero's Oration for Milo.

2. The Greek Testament to the end of the Acts of the Apostles, or the First Book of Xenophon's Anabasis, at the option of the candidate.

3. Algebra, as far as Simple Equations.

4. The First Book of Euclid's Elements.

V. That students who pass this examination satisfactorily, should not be subject to any subsequent examination in Latin, except the Pharmacopœia Londinensis and prescriptions.

VI. That students who have not passed this examination should, for the present, be allowed as heretofore to undergo the preliminary examination in Celsus and Gregory after they have completed two winter sessions of their medical studies.

MEDICAL APPOINTMENTS AND VACANCIES.—A resident medical superintendent is required at the Lunatic Asylum at Aberdeen. The salary is 150*l.* a year, with board and accommodation within the house. The candidates must be unmarried, and the officer must devote his whole time and attention to his duties. The usual legal qualifications are required. The guardians of the North Witchford Union, Cambridgeshire, have declared a vacancy in the surgency of the first district, with a population of upwards of 3000, salary 40*l.* a year, the workhouse being additional, at 60*l.* per annum; vaccination 1s. 6d. per successful case; midwifery 10s. 6d. in the workhouse or in Doddington, and 15s. in Wimblington and Benwick, and the extras allowed by the Poor-law Board, which amounted last year to 34*l.* 6s. 6d. The appointment is for one year, and the successful candidate must reside at Doddington, which is a central situation. It is said there is no medical man within four miles of Doddington, three of Wimblington, and five of Benwick.—Frederick Bateman, M.D., elected house-surgeon to the Norfolk and Norwich Hospital.

NAVAL APPOINTMENTS.—Acting Assistant-Surgeons Frederick Lekeux (1851), from the Impregnable flag-ship, at Devonport, to the Castor, 36, at the Cape of Good Hope, and Charles E. Playfair, to the Victory, flag-ship, at Portsmouth.

ST. GEORGE'S HOSPITAL.—The annual report of the affairs of this hospital was presented to a General Court of the Governors on the 4th inst. The balance in hand, Dec. 31, 1849, was 805*l.* 4s. 9d. The annual subscriptions amounted to 3367*l.* 14s. 10d.; the life subscriptions to 255*l.* The dividends were 2378*l.* 18s. 2d.; these sums added to the receipts from pupils, benefactions, and legacies gave a total ordinary income of 6973*l.* 4s. 4d. The sale of stock during the year realised 7601*l.* 17s. 11d. and 111*l.* 8s. 4d. had been received from the Sun and Westminster Fire Insurance Offices for damage done to the hospital by the late fire. The total receipts for the year were 15,506*l.* 14s. The receipts for the Convalescent Fund were 255*l.* 17s. 7d. The expenses were 12,199*l.* 6s. 11d., and 2520*l.* had been paid on account of building contracts and architects' commission. 352*l.* 9s. 8d. had been paid for special claims; making the expenditure 15,071*l.* 16s., leaving a balance of 434*l.* 18s. in favour of the charity. There is evidently a great error in the report, inasmuch as a large sum, upwards of 7000*l.*, obtained by sale of stock, is set down among the receipts. This resembles the paying of dividends out of the capital. The fact is, the hospital expenditure, instead of leaving a small balance in favour of the Institution, has greatly exceeded its income.

LIVERPOOL SCHOOL OF MEDICINE.—On Monday evening, the students of the Liverpool Infirmary School of Medicine gave a dinner at the Wellington Hotel, Dale-street. There were upwards of thirty gentlemen present, and many of the medical gentlemen who have given lectures at the School of Medicine on various branches of medical science, namely—Dr. Vose, Dr. Hibbert Taylor, Dr. Dickinson, Dr. Inman, Dr. Nevins, Mr. J. Cooper, Mr. Long, &c. &c. The chair was occupied by Mr. T. H. Walker, and the vice-chair by Mr. G. S. Taylor. After the usual preliminary toasts had been disposed of with due honours, Mr. J. D. Kelly gave "the Liverpool Medical School;" and, in doing so, he referred to the advantages which such an institution must have in promoting the interests of the medical students of the town. The ardour with which the pupils pursued their studies argued much for the future prosperity of the school; and the time was not far distant when it would take a high rank among those institutions now in existence for the promotion of medical science. The Vice-Chairman, in an eloquent speech, proposed "the Lecturers of the Liverpool Medical School." Mr. Thompson proposed "the Medical Staff." "The Medical and General Press" was proposed by Mr. Crump, who expatiated at some length on the bearings of medical literature on the welfare of medical students, and the wholesome stimulus of the hope of one day seeing their own name among the skilled and gifted contributors. Dr. Inman proposed "the Students." Mr. Long then proposed "the Chairman," with whom, he believed, the idea of the present assemblage had arisen. Mr. Walker, in returning thanks for the kind manner in which his health had been proposed and drunk, thought it but justice to state, that, though the idea of this dinner originated with himself, yet this happy consummation was greatly indebted to the aid of other gentlemen.

BOARD OF HEALTH.—The Government Bill for confirming certain provisional orders of the Board of Health has been printed. They refer to the appointment of local boards of health at Market Harborough, Wolborough, Gateshead, Doncaster, West Cowes, Hartlepool, and Great Yarmouth, at which places elections are to take place on the 1st of August next.

OBITUARY.—On the 4th instant, Arthur Cocke, Esq., surgeon, of Howland-street, Fitzroy-square, aged 54, after a long and painful illness.—At his residence, 70, Newman-street, J. Carter, M.D., aged 45.—On the 9th inst., at Bathampton, Somerset, Francis Lemann, M.D.

SPROSTON *v.* DAVIES.—This was an action before Mr. Baron Alderson, at the Midland County Circuit, for false imprisonment, brought by the plaintiff, a general practitioner at Birmingham, against the defendant, Dr. Birt Davies, the coroner for that place. The imprisonment was for alleged contempt of court, and arose out of one of those absurd proceedings, the holding an inquest upon persons deceased of cholera, which originated with our London coroners, upon the folly and impropriety of which the judge descanted in the course of the trial, saying that the privacy of families was invaded thereby, without assisting at all in the detection of crime. The plaintiff was a witness at the inquest, and, according to the evidence at the trial, was treated most superciliously by the coroner, and, somewhat sharp language having passed between them, Dr. Davies severely reprimanded him. He said he had been Her Majesty's coroner for ten years, and was never so insulted before. As supreme judge of that court—(laughter)—he would uphold its dignity. "Now Sir," addressing the plaintiff, "leave the room, go, begone!" (Laughter.) The plaintiff was about to do so, but first said, "You shall hear from me, Sir, in another way." This was construed into a threat, and, on plaintiff's refusing to apologise, or even to retract, a policeman was ordered to take him to prison. He was taken instead to the station-house, where, on the application of the inspector, the coroner refused to attend or sign the sheet, warning the officer that if he let plaintiff go it would be at his peril. He was, however, let out on bail, after having been detained two hours, and the next day attended at the magistrates' room, where the only magistrate present was the defendant. Upon taking his seat at the table, he (the defendant) said, "I take my seat here to-day as coroner, and not as magistrate." He then turned to a policeman, and said, "Put up W. Henry Sproston." The plaintiff stood up, and his attorney attempted to address the defendant, but he would not hear him. He called upon the plaintiff to retract or apologise; but, finding he would not do either, suddenly exclaimed, "The case is dismissed." These were the grounds of action, and it was contended that the coroner had no right to commit for contempt of court, and at all events not for an indefinite time, nor to any other place than the county gaol or house of correction. The jury returned a verdict of 10*l.* damages for the imprisonment in the station-house and the magistrates' room, and 1s. for that at the inquest; the question as to the right of the coroner to commit for contempt being reserved for the court above. This case shows, that if medical men alone are fitted to act as coroners, and we by no means seek to invalidate that position, they should learn a little of the law belonging or appertaining to their office, and should, above all things, learn how to conduct themselves as gentlemen.

EMIGRANT VESSELS.—Accounts from New York state that ship-fever has prevailed to a deplorable extent in the smaller emi-

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grant vessels. One ship, called the Antarctic, had lost twenty passengers on her voyage, and had had 400 ill at one time. Another vessel, the Shannon, it is alleged, "came into port little better than a floating coffin." Forty had died during her passage, and thirty were sent to the hospital on her arrival. This should be seen to: human life should not thus be sacrificed to the cupidity of ship-owners. The scenes on board some of these emigrant vessels may fairly rival the horrors of the middle passage of the slavers.

STATISTICS OF SUICIDE IN PARIS.—An examination of 9000 official reports relative to suicides which have been committed in Paris during a period of thirty-four years affords the following results:—1. The philosophical, or premeditated suicide, takes place at night and a little before dawn; the accidental suicide occurs during the day, that being the period when its occasional causes are developed, such as bad news, losses, &c. Each age has its peculiar method of terminating life. Young men, and those in the prime of life, generally have recourse to fire-arms; children, women, and old men, most commonly destroy themselves by hanging or suffocation. The following table, which has been carefully drawn up, shows the methods of suicide most generally resorted to at the various periods of life:—

	By firearms.	By hanging and suffocation.
From 10 to 20	61	68
„ 20 to 30	283	51
„ 30 to 40	182	94
„ 40 to 60	161	256
„ 60 to 70	126	235
„ 70 to 80	35	108
„ 80 to 90	2	—

The average number of suicides annually committed in Paris is 300. It has been established by authentic documents, collected by the Prefecture of the Seine, that of 511 ascertained suicides, 65 have been by means of voluntary falls from great heights, 66 by strangulation, 45 by pointed and cutting instruments, 48 by firearms, 31 by poison, 86 by asphyxia from charcoal vapour, 170 by drowning. The causes leading to the act are distributed as follow:—100 from love or wounded affections; 148 from disease, disgust of life, &c.; 69 from an evil course of life, loss at play; 100 from distress, loss of employment, embarrassed affairs; 94 from unknown motives.

NEW MODE OF TAKING FEES.—The editor of the *Union Medicale*, in an article on medical organization, mentions the following curious manner of taking fees:—A physician, who lived in one of the most popular faubourgs of Paris, and who had an enormous practice, never took any fees at all; but twice a year his wife made a circuit among all her husband's patients with a large bag, which she presented to each, saying, "Put in as much as you like, or as much as you can." The physician in question left a considerable fortune as the result of this confiding practice. Another physician is mentioned who fatigued two horses daily, and whose fee for every one was only one franc (tenpence) a visit. It is to such conduct as this, when two or three men undersell all their professional brethren, that M. Latour in part attributes the depressed condition of the Profession in France.

ST. MARY'S HOSPITAL.—The following are the names of the medical officers who have been elected:—Assistant-Physicians: Drs. Lankester, Handfield Jones, Sieveking, Miller, Markham. Assistant-Surgeons: Henry Smith, Esq.; James Lane, Esq.; Haynes Walton, Esq.; H. Taylor, Esq.; Joseph Maclise, Esq.; H. Dampier, Esq.; Henry Burford Norman, Esq.

LIVERPOOL.—Dr. S. F. Stevenson, Hamilton-square, has been elected surgeon to the pauper poor of Birkenhead; and Dr. John Hunter Robertson appointed his assistant.

NORTHERN HOSPITAL, LIVERPOOL.—Mr. David Chalmers, surgeon to the Northern Dispensary, was elected Honorary Assistant-Surgeon to the Northern Hospital, after a smart contest between him, Mr. Balman, Mr. Falloon, and Mr. Higginson. At the close of the poll the votes stood as follow:—Mr. Chalmers, 267; Mr. Balman, 185; Mr. Falloon, 143; Mr. Higginson, 30. Mr. Chalmers is a rising man, and the choice has been good on the part of the electors.

ROYAL COLLEGE OF VETERINARY SURGEONS.—The seventh Annual General Meeting of this College will be held at the Free Masons' Tavern, on Monday, the 5th of May, at 1 p.m., on which occasion Mr. Robertson, the President, will take the chair.

ANIMAL MAGNETISM.—It is said that the Lombardo-Venetian Government has put its veto on all experiments in animal magetism, whether it be employed medicinally, (?) for scientific inquiry, or for amusement.

DEATHS *in the Metropolis for the week ending Saturday, April* 12, 1851.

Causes of Death.	April 12. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	474	330	226	1042	9183
Specified Causes	474	329	226	1031	9146
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases	134	28	22	184	1753
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat	7	21	25	54	481
3. Tubercular Diseases	84	117	5	206	1693
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses	51	44	40	136	1172
5. Diseases of the Heart and Blood-vessels	3	21	14	38	310
6. Diseases of the Lungs, and of the other Organs of Respiration	102	45	55	202	1534
7. Diseases of the Stomach, Liver, and other Organs of Digestion	25	21	13	59	589
8. Diseases of the Kidneys, &c.	—	8	3	11	76
9. Childbirth, Diseases of the Uterus	—	7	1	8	87
10. Rheumatism, Diseases of the Bones, Joints, &c.	1	4	1	6	73
11. Diseases of the Skin, Cellular Tissue, &c.	3	1	—	4	8
12. Malformations	3	—	—	3	28
13. Premature Birth and Debility	33	2	—	35	178
14. Atrophy	20	3	—	23	149
15. Age	—	—	44	44	515
16. Sudden	—	—	2	2	105
17. Violence, Privation, Cold, and Intemperance	3	7	1	16	200
Causes not Specified	—	1	—	11	37

1. Small-pox	12	Paralysis	38	Disease of Spleen	1
Measles	28	Delirium Tremens	5	8. Nephritis	1
Scarlatina	13	Chorea	1	Nephria or Bright's Disease	4
Hooping Cough	50	Epilepsy	3	Ischuria	—
Croup	4	Tetanus	1	Diabetes	—
Thrush	1	Insanity	—	Stone	1
Diarrhœa	14	Convulsions	58	Cystitis	1
Dysentery	4	Disease of Brain, &c.	9	Stricture of Urethra	—
Cholera	—	5. Pericarditis	3	Disease of Kidneys, &c.	4
Influenza	20	Aneurism	1	9. Paramenia	1
Purpura and Scurvy	1	Disease of Heart	34	Ovarian Dropsy	—
Ague	—	6. Laryngitis	6	Childbirth (see Metria)	2
Remittent Fever	4	Bronchitis	39	Disease of Uterus, &c.	5
Infantile Fever	1	Pleurisy	—	10. Arthritis	—
Typhus	25	Pneumonia	85	Rheumatism	5
Metria or Puerperal Fever	1	Asthma	11	Disease of Joints, &c.	1
Rheumatic Fever	—	Disease of Lungs, &c.	11	11. Carbuncle	—
Erysipelas	4	7. Teething	13	Phlegmon	1
Syphilis	2	Quinsey	2	Disease of Skin, &c.	3
Noma or Canker	—	Gastritis	2	17. Intemperance	1
Hydrophobia	—	Enteritis	5	Privation of Food	1
2. Hæmorrhage	5	Peritonitis	4	Want of Breast-milk	5
Dropsy	20	Ascites	1	Neglect	—
Abscess	4	Ulceration (of Intestines, &c.)	1	Cold	—
Ulcer	2	Hernia	6	Poison	1
Fistula	—	Ileus	2	Burns and Scalds	1
Mortification	—	Intussusception	2	Hanging, &c.	1
Cancer	21	Stricture of Intestinal Canal	1	Drowning	3
Gout	2	Disease of Stomach, &c.	5	Fractures	2
3. Scrofula	10	Disease of Pancreas	1	Wounds	1
Tabes Mesenterica	19	Hepatitis	4	Other Violence	—
Phthisis (or Consumption)	138	Jaundice	2	All Violence	9
Hydrocephalus	39	Disease of Liver	7		
4. Cephalitis	7				
Apoplexy	29				

BIRTHS AND DEATHS.

	Births.		Deaths.		Births over Deaths.	
Males	779	1536	542	1042	237	494
Females	757		500		257	

The Deaths in the several Districts are as follow:—

Districts.	Population in 1841.	April 12, 1851.	Sum of Ten Weeks.
London	1948369	1042	9183
West	301189	157	1396
North	376568	194	1765
Central	374199	176	1724
East	393067	223	1926
South	503346	292	2372

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TO CORRESPONDENTS.

We must peremptorily request our Correspondents to address their communications

To the Editor,
46, Princes-street, Soho,
London,

and not to that gentleman's private residence. The many letters that are so addressed cause much confusion, and will compel us to decline all notice of them in the Journal.

We are unwillingly obliged this week to omit our usual Clinical Lecture.

Clinical Lectures by Dr. Burrows, Mr. Bransby Cooper, and Professor Fergusson, are in type; as also communications by Dr. Bushnan, on Homœopathy, and Dr. M'William, on Yellow Fever (Part II.); Editorial remarks on the Small-pox in Hindostan; Clinical Medicine and the Prevention of Cholera; and Reports from St. Bartholomew's, St. George's, and Seamen's Hospitals, and the Bristol Infirmary.

Mr. Gorlike's second paper will appear in its due course.

A Friend in Dublin.—Under this head we have received a letter with signature, but marked "private," complaining of our Article on the Irish Medical Charities, published on the 22nd March, and particularly with reference to the following paragraph: "Not only has Trinity College held out against all improvements in its medical department, but its Board has from time to time during the last thirty years, deprived its medical professors of many of the emoluments which they formerly enjoyed, while the large incomes which it is said the heads of the University possess, are not curtailed." The writer complains that this statement has been made "by some person either misinformed or ill-disposed as to this matter." We can assure our Correspondent that neither is the fact. That we are not ill-disposed to the Dublin School nor to the interests of the Medical Profession, has been proved by our advocacy of the rights of the Profession, and our acknowledgment of the just claims of the Dublin School of Medicine in the very Articles alluded to; and that we are not misinformed upon the matter, we are willing to prove by a statement of facts, should it be necessary. As, however, it might not be interesting to the general reader, we do not now, nor perhaps would the writer himself like that we should, enter upon these proofs. Our Correspondent, if he will but take the trouble to examine the context, must see that both in the paragraph referred to, and in the general tenor of the Article, we alluded to the past, not to the present: to the time when clinical teaching was first introduced into the Dublin School, (new twenty-five years ago at least;) and when Macartney, and Graves, Colles, Carmichael, Kirby, and others, were lecturers. Moreover, that our remarks referred not to the School of Medicine of the University, but to the Board of Divines which governed Trinity College, and to the difficulties heretofore thrown in the way of obtaining degrees in medicine in Ireland, is too manifest to require confirmation by words on the present occasion. That the degrees in medicine taken in Dublin during the last twenty years have been but few, is at once proved by a reference to the published list in Thom's "Irish Almanack;" and if the gentleman who is so anxious to break a lance with us has any desire to continue the controversy, we will analyse that list for his information. The writer in his letter speaks of an increased curriculum, and an extended course of education, lately introduced. This, however, is foreign to the subject. The School of Physic is admirable; the teachers thereof have always been very eminent; the means of acquiring a practical knowledge of physic is as great, if not greater in Dublin, than in most other cities. How, then, does it happen that the great bulk of the Irish physicians have graduated elsewhere? We have no desire to carry on a controversy of this description, but we are willing to hear our Correspondent's explanation of the latter fact. We shall also be most willing to publish for him the proofs, that the incomes of the medical professors derived from the University during the last thirty years have not been lessened by the regulations of the Board, and that the heads of the University have curtailed their incomes. We mentioned in the article alluded to, that "changes in granting medical degrees" had lately taken place in the Irish University, and chiefly, we believe, through the instrumentality of Dr. Stokes, the present distinguished Regius Professor of Physic. Our Correspondent, in endeavouring to disprove our assertion with respect to the difficulty in obtaining degrees at Dublin, says that the University has, "at the strong recommendation, though to the no small personal sacrifice" of Professor Harrison, created a chair of surgery. Of this we were well aware, and also that it is most admirably filled by Dr. R. W. Smith, one of the best pathologists in Great Britain; but in the first place, the creation of a chair of surgery has nothing whatever to do with the subject which we discussed; and, in the second place, we really were under the impression that that reform was also in a great measure brought about by the influence of Dr. Stokes.

We regret our engagements will not permit us to publish the reports of Dr. Dundas's Lectures, delivered at the Northern Hospital, Liverpool.

A Member of the London Medical Society.—The person most to blame is the gentleman who occupied the chair upon the occasion. It was in his power, and most unquestionably it was his duty, to have prevented any such irrelevant remarks.

Mr. Baker.—Dr. M'Williams's Paper, commenced in our present Number, will be concluded in our next. We will then give insertion to the remarks of Mr. Baker, "On the contagious nature and presumed importation of the Yellow Fever into the Brazils."

Student.—We frequently hear objected to various proceedings in writing or otherwise—Oh, he goes on a theory! Now a theory is a form under which we contemplate things; and hence, if our theory be perfectly true, the error is not from its being theory, but *our* imperfect theory. When, then, it is said, "These Germans always write on a theory, their books are trash," this is pure ignorance, for they proceed on the right method. A theory is that which unconsciously guides us in the investigation of facts; and, besides this, it serves other purposes so well known that they hardly need mention here.

A General Practitioner.—The administration of sulphuric acid at the same time the patient is taking acetate of lead and opium is, as you observe, most decidedly anchemical, and, moreover, tends to the formation of an inert compound. But, in whatever way it may be sought to be explained, whether the vital force suspends the chemical, or otherwise, certain it is, that there is no combination of medicines so useful in hæmorrhage, pulmonary in particular, as acetate of lead and opium, with, at intervals, sulphuric acid.

[To the Editor of the Medical Times.]

Sir,—As a constant subscriber to your most valuable Journal, I shall feel greatly obliged by your answering the following questions in your next publication:—Are the General Practitioners of the present day a more efficient class of men generally than those in practice thirty years ago?

Also—Are the examinations at the College of Surgeons and Apothecaries' Hall at the present time a fair criterion of a man's knowledge of Surgery and the Practice of Medicine? I am, &c. E. G.

Maidstone.

1st. Yes.

2nd. Of Medicine perhaps; but the low standard of examination at the College of Surgeons is no criterion of efficiency in Surgery. Mr. Guthrie, one of the examiners of the College, places no faith in the examination as an evidence of qualification.

[To the Editor of the Medical Times.]

Sir,—I am sorry to trespass on your valuable time, and, in lieu of general medical practitioner, can an apothecary legally charge for medicine and attendance in the same case? I am, &c.

Leyburn. Veritas.

Yes; but if a charge were made both for medicines and attendance on the same day, it would lie with the discretion of the jury or judge to allow the charge for attendance. In consequence of there being no fixed scale of charges for medical service, a jury, in disputed cases, decides upon what ought to be considered a fair and reasonable charge.

[To the Editor of the Medical Times.]

Sir,—Would you be kind enough to inform me in your next Number, if a gentleman will be admitted for his examination at the College of Surgeons (London) and Apothecaries' Hall on producing his diploma from the University of Edinburgh, though he has not attended all the Lectures required.

Towcester, Northamptonshire. I am, &c. A Subscriber.

No; except by special concession of the authorities. If our Correspondent desire to present himself for examination, he should send a statement of his case to the Secretaries of the respective Institutions, and beg for a relaxation of the regulations in his favour.

Errata.—In Dr. Taylor's Paper on Cholera, in the last Number, page 402, col. 1, paragraph on the period of incubation, for "case 37," read "case 68;" and for "case 36," read "case 54."

An Old Subscriber, Stockport, in reply to his many inquiries, is informed that the Graduates of Universities are, by virtue of their academical degrees, entitled to the rank of Esquire; but do not so designate themselves because the degree of M.D. is the higher title. Hence Doctors of Medicine at Court, take precedence of Esquires. The correct address is to annex the title of M.D. only after the name. The London College of Physicians, notwithstanding the examination of its candidates, has not the power of conferring the degree of M.D.; therefore its Fellows or Licentiates, unless they possess the diploma of M.D. from some University, are not entitled to annex the title of M.D. to their signatures. The Graduates of Oxford and Cambridge are clearly not entitled to take precedence of the Graduates of other Universities, entitled by their Charter to grant degrees.

Communications have been received from—

Dr. Stokes, of Dublin; Student; A General Practitioner; Veritas; Mr. Redwood, of Montague-street, Russell-square; Britannicus; L. S.; Mr. Collet, of Essex-street, Strand; Dr. Radcliffe, Henrietta-street, Cavendish-square; Dr. Snow Beck, of Langham-place; Mr. Baker, of St. John's-road, Fulham; Professor Lizars, of Edinburgh; Mr. Alford, of Powis-place, Haverstock-hill; A Subscriber, at Towcester; Dr. Hughes, of Bedford; Mr. Henry Smith, of Caroline-street; Mr. Fletcher, of Liverpool; Mr. Walker, of Chester; A Member of the London Medical Society; Mr. Harvey, of Soho-square; Indentureless; Probe; Mr. F. B. Courtenay, of Chandos-street; Mr. W. C. Walker, of Shepton-Mallet; Mr. Bayly, of New Ross.

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ORIGINAL LECTURES.

CLINICAL LECTURES ON SURGERY,

AT

KING'S COLLEGE HOSPITAL.

By WM. FERGUSSON, Esq., F.R.S.

ON ANEURISM BY ANASTOMOSIS.

Gentlemen,—I have already, on several occasions like the present, drawn your attention to the interesting and remarkable case of aneurism by anastomosis, affecting the foot and leg, on the boy Slade, now in the house. I have stated to you that, in all probability, the treatment of this case would extend over a considerable period of time, and that various circumstances might arise during the course of treatment which would especially demand our attention, and call for some clinical observations from myself, which would be instructive to you. Certain circumstances have somewhat unexpectedly arisen, which you have all had an opportunity of observing, and respecting which, and the prominent features of the whole case, I shall make some further and probably concluding remarks this day.

When I last spoke to you concerning this case I had to draw your attention to the fact, that mortification had attacked some of the toes, and that there was reason to believe, from the symptoms and signs then existing, that it would not be confined to these parts, but that it would involve the leg to a considerable extent; for you will recollect that a very peculiar appearance of the skin had shown itself on different parts of the leg a few days after operation, consisting in curiously mottled patches; and at the same time the boy suffered from very severe and constant pain in the foot and up the leg, which continued and increased. My anticipations, I am sorry to say, were fully verified, for mortification attacked all those parts of the foot and leg where there was this peculiarly mottled state of the skin. Large sloughs appeared, the disease extended as high up as the patella, and it soon became evident that all hope must be given up of attempting to save the limb. The thing we had now to consider was the salvation of the patient's life. Now, I trust you have not forgotten what I impressed upon you in my former observations, namely, that the boy's life was in considerable danger from hæmorrhage on one occasion before he came into the hospital, that he would always be subject to the same hazard of bleeding if no attempt were made to cure his disease, and therefore it was for the purpose of rendering his life secure, as much as for the sake of curing the affection under which he laboured, that I determined to put in force my treatment. Anxious to save his leg, I performed the operation of tying the superficial femoral artery, a measure which, after very patient consideration and examination, appeared to me to be the best. However, I did not anticipate that this alone would cure the disease. At the time of the operation I remarked that I did not fully expect this; but I supposed that, after having checked the flow of blood through the main vessel of the limb, the disease would be more under command, and that any local measures which would appear to be necessary for the still further destruction of the diseased mass would, in all probability, be more easy and more efficient. Unfortunately, my expectations have been frustrated by this mortification, which certainly was not apprehended by me in this instance; for certainly we were not likely to expect gangrene to occur in such a vascular limb. However, it took place to a great extent, and it now became necessary to do something to save life. Now, some time before the last measure, it was evident that it would be necessary to amputate the limb above the knee, but I was deterred from doing so at an earlier period, because the wound made for tying the femoral artery was not healed, and there was so little action going on then, that I did not like to meddle with the thigh yet;—you recollect there were two threatenings of secondary hæmorrhage, bleeding having taken place to a small extent. This risk, however, passed away, and then the period seemed to me to have arrived at which the amputation of the limb was most proper. The patient suffered so intensely, and was brought down to such a very low condition, that latterly we had no time to lose, and it became necessary to take away the offending part as soon as it was possible to do so with safety. Well, you saw the amputation performed above the diseased parts, with two flaps,—one from the lower third of the thigh in front, the other including a portion of the calf of the leg. Since then everything has done well; the boy has been relieved from all his sufferings, and he is recovering well.

Now, it was evident, after the gangrene had taken place to such an extent, that we should lose the opportunity of having a valuable preparation; but the limb has been prepared as well as it could be under the circumstances. Some injection has been thrown down the main vessels and heel. (Mr. Fergusson having the preparation before him.) You can have some idea, at least, of the nature of the disease. Unfortunately, the injection has not run down the arteries and veins to that extent which would be desirable, owing to the diseased state of the leg; and the vessels composing the tumour at the heel have not been distended to any great degree; this, however, could not well be helped. You observe that the anterior and posterior tibial arteries are considerably enlarged all the way down; but when we come to look at the vessels which lead directly to the tumour, namely the posterior tibial artery and vein, we find them more than twice their natural diameter, and the peroneal artery as well: these were the vessels chiefly implicated in the disease. When we trace the posterior tibial vessels downwards to the foot, we find them behind the inner malleolus give off a large and numerous leash of branches, which formed the pulsating tumour, and which, in fact, looks not unlike cells; hence the reason why this disease, aneurism by anastomosis, was considered to consist mainly of cellular structure; and you can readily understand how a tumour of this nature would, on a section, give the appearance of its being composed of cells. You perceive here, that the veins are the vessels which are chiefly implicated; they are chiefly increased in size, and this bears me out in the opinion I had previously formed, that the disease was, to a great extent, of a venous nature; in fact, more venous than arterial. I concluded this from the appearance of the parts, and from the effect which pressure of the vessels at the groin had upon the parts, namely, greatly increasing the size of the tumour and of the limb altogether. Another proof that the veins participated to a greater extent than the arteries in this disease was shown to us in the immense flow of venous blood from the posterior flap during the operation of amputation of the leg; and you saw me cut off a bit of the popliteal vein whilst dressing the stump, and easily put my little finger through it, it was of such a size. You see, moreover, that, in addition to this great enlargement of the vessels in their contiguity to the disease in the foot, there is a large mass just below the knee, consisting of convoluted vessels, showing well the nature of the disease. Now, this preparation, imperfect as it is,

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shows the nature of the disease we had to deal with well, and justifies the opinion I had always entertained as to its true character. It has been doubted whether the arteries were diseased. I always thought that the veins were chiefly affected, but that the arteries were implicated as well. In some instances of aneurism by anastomosis the arterial branches predominate; in some, the veins; but I have never seen a case in which there has been much enlargement of the veins, without there being at the same time some disease of the arteries.

Now, on taking a review of all that has been done, and of all that has happened, in connexion with this very interesting case, we cannot but take into consideration each of the various modes of treatment which we had in our power to apply; and we cannot but question, after all, whether what has been done was the best for the patient, especially now that he has had the misfortune to lose his leg. You must recollect imprimis, that the life of the lad was in danger from hæmorrhage, and that when I was first called into consultation at his own house, it was supposed that amputation should be performed; indeed, my opinion was asked respecting the propriety of that step. It seemed to me that we had much in our power in the treatment of this disease,—that we might have a chance of destroying it and yet save the leg. It appeared to me to be a pity to take off the limb at first, without trying less severe measures; therefore I discarded at once that view of the matter. Well, then, it may be said, that we might have left the patient alone, and merely have followed the plan of keeping him quiet in bed until the ulceration, through which the bleeding had taken place, had healed up; and that then we might have left the lad to his fate. But this had been done before; he had been left to take his chance of bleeding; and this event had taken place, and it might do so at any other time. I therefore conceived that it was not a right thing to submit him to a risk of losing his life by hæmorrhage again. My object in any treatment which I should undertake, was to save the patient from the hazard he had previously been subjected to, and at the same time to procure a removal of the disease if possible. Well, the next step which I thought of, and which might have been resorted to, was the ligature of the anterior and posterior tibial arteries. Now, I do not mean to deny that this may not have been sufficient to save the foot and cure the disease in that part; and I seriously thought at one time of putting in force this plan of treatment; but, on further consideration, it appeared to me that the diseased state of these very vessels forbade the idea of this method; for even if no untoward accident should have followed the placing of a ligature upon arteries not in a healthy state, we should only be able to get rid of a portion of the disease, and leave the remainder as it was before: the necessity, therefore, of curing the whole seemed apparent. Well, then, pressure upon the femoral artery at the groin, by means of a tourniquet, was another means which was in our power, and I gave that every consideration, and made several examinations of the case, with the view of ascertaining how this would be likely to influence the disease; but you will recollect that pressure caused a great increase in the size of the tumour and of the limb; moreover, the patient experienced such severe pain, that it appeared to me that it would be out of the question to adopt this plan of treatment. The remedy which appeared the most fitting, then, was that which, on due consideration, I adopted; namely, the ligature of the superficial femoral artery.

Now that matters have taken such a course as they have done, it may, perhaps, be regretted that we had not tied the anterior and posterior tibial arteries instead of tying the femoral, for in all probability we should have escaped the occurrence of gangrene; if, indeed, I had anticipated this result, I should have preferred doing this; but, as I have before stated to you, it was not expected by me that mortification would take place in such a vascular state of the parts.

After all, we have only arrived, at last, at that step which had at first been thought of and proposed, and which might with all propriety have been adopted; namely, amputation of the limb. The lad, as I told you, had been told that amputation ought to be performed; but it was proposed that amputation should be done through the leg. Now, I should not have considered it safe to perform amputation of the leg if I had deemed that step at all necessary, because we should have to cut through diseased parts where the vessels were so large and numerous that it would almost be equal to cutting through an aneurismal tumour. You recollect what gushes of venous blood there were when I performed the amputation even above the knee.

I will not detain you longer, gentlemen, upon this case, which has with reason attracted a great share of attention amongst us all; before leaving you, however, I must beg to state that, during the whole course of the case, I have not acted without great caution, and after serious and repeated deliberation; and the results of my deliberations as to how it would be best for me to act have been drawn, not from this case alone, and not from one other case of a like nature, but from other cases, and from that general knowledge of surgery which the experience of a good many years has, I hope, afforded me. I have certainly not been so successful in the treatment of this case as I could have wished; it was my wish and hope that the disease might have been cured without the sacrifice of the lad's limb, but I have been disappointed with this unfortunate result: nevertheless, however unfortunate we have been in this respect, we have the satisfaction of the consciousness of having done all for the best, and having, at last, effected for this patient that which many good surgeons would have considered to be necessary at first, and of having put him into as good a condition as the present art and science of surgery will permit.

I had intended to make some observations to-day respecting the case of the man upon whom you saw me perform the operation of amputation at the ankle-joint last Saturday; but, as I shall dwell at some length upon the features and merits of this particular proceeding, I will defer it until our next meeting.

LECTURES ON HISTOLOGY.

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS, LONDON.

By J. T. QUEKETT, Esq.,
Assistant-Conservator of the Hunterian Museum.

(Continued from page 368.)

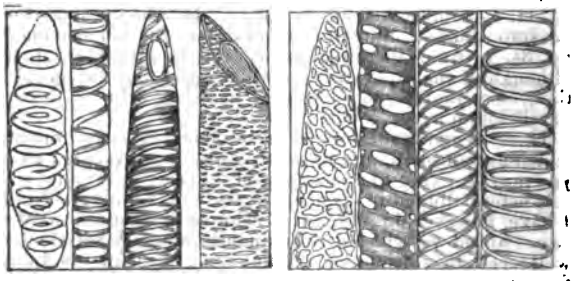
SPIRAL VESSELS.

The spiral vessels of plants, as shown at *a*, in *Fig.* 34, are generally pointed at each extremity. In some cases, however, they terminate abruptly, and near the end may occasionally be seen a small oval hole, by which a communication was established between it and the cavity of another vessel connected to it at this point. This is shown by C, in *Fig.* 35, from the rhubarb, and quite as strikingly by D, the vessel in this case being of the dotted variety.

In most spiral vessels the fibre is single, and is then called a simple spiral; in others many fibres running in the same direction form a band, which in contra-distinction is termed a compound spiral vessel; sometimes the coils of the fibre will separate, and then grow together again, giving rise to a series of rings; such vessels are called annular. In other cases the turns of the spiral may be connected together here and there by the branching of a fibre, or the development of cross pieces; such vessels are termed reticulated, the surface being marked out somewhat like a net.

Fig. 33.

A B C D E F G H



In this vertical section of an Opuntia you have a view of various kinds of spiral vessels. In one part of the field, as represented by A, in *Fig.* 33, you will see short thick cells, each with a spiral band in its interior, in another part the coil has been interrupted, and by the union of its ends a ring has been formed very much re-

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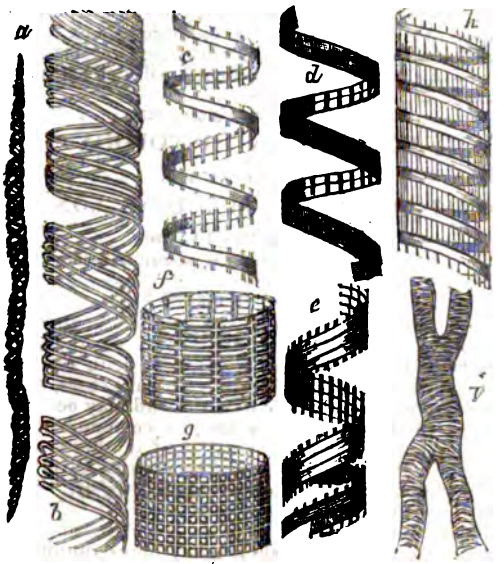
sembling a quoit, as shown, on a former occasion, by *Fig.* 5, B; so that in the same cell you have examples of a spiral and annular vessel. Sometimes the spiral fibre bifurcates, or there are short longitudinal fibres developed, which connect the spiral coils and give the vessel a reticulated appearance. Such vessels as those represented by E and F, in *Fig.* 33, occur in this section from the balsam; in other cases, the spiral thread is not so evident, but the interior of the vessel (as shown by A, in *Fig.* 36) is marked by long slit-like pores, which are placed regularly one above the other, and resemble the rounds of a ladder; and hence they are termed scalariform vessels, being almost peculiar to ferns, and will be again alluded to. That these are really all modifications of the spiral type, is known by the frequent occurrence of several varieties in one and the same plant, and even section, as in this one from the balsam, where, in a single bundle, the outermost vessel on the right side is a dotted one, and that on the left side an annular one, and between them occur spiral vessels, with their spires more and more widely separated; this is also well observed in the root of the Lettuce, in which bundles of vessels are met with in various stages of development at one and the same time.

Fig. 34.



In some plants, and especially in the *Canna bicolor*, the spiral vessels are remarkable for the occurrence of longitudinal as well as spiral fibres, in this specimen, *fig.* 34, *h*, you may see what looks like a large, ordinary spiral vessel, but, if carefully examined, a series of minute longitudinal fibres will also be observed, and when such a vessel is unrolled, the broken ends of these fibres, as represented by *c*, *d*, *e*, will be found projecting above and below the spirals.

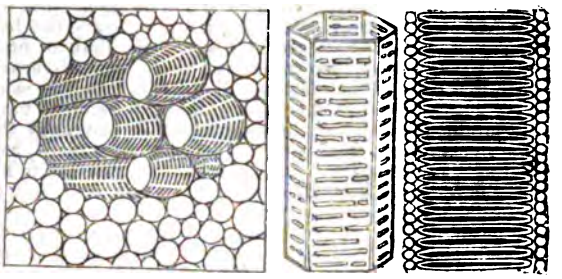
In some cases, as in this specimen, both the longitudinal and spiral fibres are of the same size and equidistant. The vessel, as represented in *fig.* 34, *g*, then appears marked out into squares, and will also unroll; in another specimen, *fig.* 34, *f*, from the same plant, the longitudinal fibres, although of the same size, are wider apart than the spirals; the vessel in this case presents markings which are true parallelograms, not squares.

These remarkable vessels have amongst them others, which are unrolled, and in some cases, as represented by *b*, you may see, very fine examples of the compound spiral vessels before alluded to, as many as six coils forming a band, I have, however, in some cases, counted as many as twenty-two. Spiral vessels not unfrequently branch; this fact is well seen in sections of the flowering stem of the Leek, from this plant, the specimen represented by *i*, in *fig.* 34, was taken.

In all these examples you may have observed that the spiral coils uniformly took one direction, viz., from right to left, but in some instances this order is reversed, and left-handed spirals are found, as in this section of a palm from the East Indies, *fig.* 33, G, H; it has been suggested that this direction of fibre may determine that in which the plant coils round an upright pole; now the hop, which exhibits these left-handed spiral vessels, is likewise a left-handed climber, thus giving support to the above-mentioned theory.

I have next to draw your attention to the variety of vessel which, from having peculiar markings somewhat resembling the rounds of a ladder, is called "Scalariform;" but this, like the other varieties, is but a modification and later stage of existence of the true spiral vessel, resulting from an unequal deposit of the secondary matter upon the inner surface of the cell-wall. The parts in which there has been no deposit, or, in other words, the pores, are always more or less elongated, like a slit, and have both extremities rounded. The inner surface of such a vessel is well represented by the piece of glass I now exhibit to you, and which is now largely used for the purposes of ventilation. If one of these vessels, when divided vertically, be examined with a power of at least 250 diameters, the depth of the pits may be well seen.

A *Fig.* 35. B C



These vessels present another peculiarity: they are often of hexagonal figure, and the markings, as well as the sides, are generally of uniform size, as shown by A, in *Fig.* 36; in other cases, as shown in *Fig.* 35, B, both the sides and the markings are unequal.

The Scalariform tissue is best developed in the root of ferns, a transverse section of these plants shows to the naked eye rows of black markings, with intervals of a lighter colour; the former are bundles of cellular and ligneous tissue, the latter the vascular tissue of the plant, which is almost entirely composed of scalariform vessels, arranged frequently in a circular form. I now show you a transverse section of the root of one of our commonest ferns, viz., *Pteris Aquilina*, or common Brakes, in which you may see the cut extremity of a bundle of vessels lying among the ligneous tissue, and you will observe the scalariform or step-like marking of the walls, and also the fact above-mentioned, viz., that they are not always circular in form, but have seven or eight sides. That you may the better understand the nature of these vessels, I will now show you two more sections of the same fern, in which they are also well seen. In the first, fig. 35 A, which is a diagonal, or sloping section, you may look into the interior of the vessels and see their peculiar markings; and in the second, which is a vertical section, the depth of the markings in the wall of the vessel may be accurately determined. Fig. 36 C, is a portion of the wall of one of these vessels, as seen under a magnifying power of 500 diameters,

In another specimen, fig. 35 C, which is a portion of a vessel found in a vertical section of a tree fern of New Zealand, you will have an opportunity of seeing to what size such vessels are capable of being developed, this object being viewed with the same power as fig. 35 A.

So characteristic are these vessels of the fern family, that I have more than once identified our common Pteris in a small portion of its remains; especially in one instance, in which I found some fragments of a frond in a funereal urn. About two years since an urn, dug up in the island of Anglesey, was, with its contents, brought to me for examination by one of our first archæologists, Mr. Albert Way; after having determined the presence of human bones belonging to an adult, and to a child, probably a mother and her offspring, certain filaments were found adhering to the inner surface of the urn; these were of a brown colour, and were arranged in definite order like the veins of leaves. Upon microscopically examining portions of these, scalariform vessels were noticed precisely similar to those occurring in

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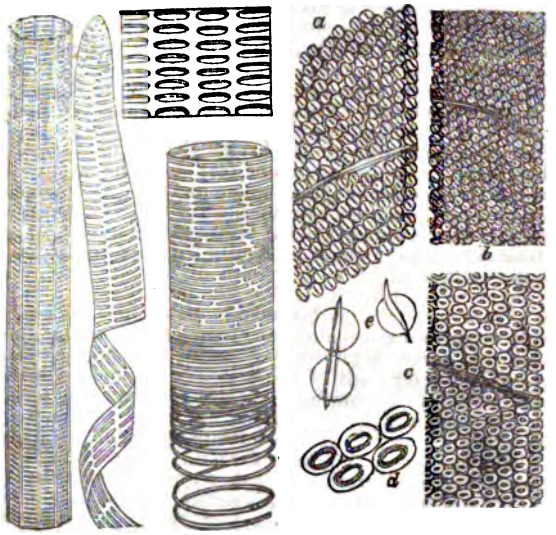
the pteris, this fern is very abundant in the district in which the urn was discovered, and most probably portions of fronds were placed in the receptacle before the ashes of the deceased persons were deposited therein.

A B C *Fig.* 36



As I have before remarked, the fact of these several varieties in the vascular tissue being dependent on modifications in the arrangement of the spiral fibre, is proved by the occasional occurrence of several of them in one length of vessel or duct; thus in this specimen from the Pteris Aquilina (*Fig.* 36 B) you will observe one vessel, which at its upper extremity has the scalariform character; lower down, as shown by D, the markings are reticulated; still lower the original spiral form is persistent; and to this again succeeds a portion of ladder-like tissue. When stretched, as represented by the lower extremities of B and D, the scalariform vessels will unroll either in a band or in single fibres.

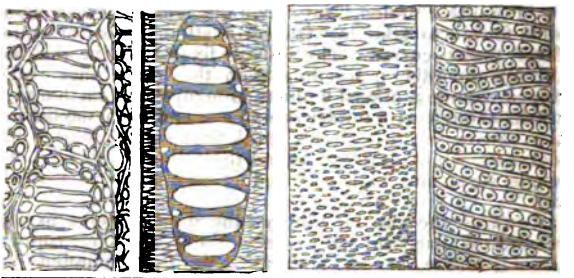
I have on a previous occasion spoken of an exception to a general rule which occurs in ferns, viz., that in them membrane is frequently coloured brown as an innate quality of its own, independently of its contents; this is seen in all the specimens that have here been shown you, and when there is much colour the vessels and cells from being collected into bundles, and arranged in a peculiar form, are easily distinguished by the naked eye.

Porous Ducts.—There are besides the spiral vessels of which I have now spoken, other tubes or canals of large size, termed ducts, which give to different woods different degrees of porosity, visible even to the naked eye. Some of them are marked by an internal deposit of fibre in addition to the pores, but this is incapable of unrolling as it does in the true spiral vessels. The usual marking exhibited is either the simple or bordered pore; and when such vessels are examined with a low power, the pores appear as dots, and hence the name of "dotted ducts" has been given to them, the term "duct" being restricted to such vessels as are incapable of being unrolled without breaking.

The first specimen of this tissue which I shall show you is obtained from the root of *Cissampelos Pareira, or Pareira Brava*. In this plant the ducts run in bundles, and are remarkable for the minute size of their pores; the extremity of each duct is more or less flattened. In a vertical section of the root of the *Alder*, the ducts, as shown in *Fig.* 36, *c*, are of great size, and the bordered pores found in their walls, as represented by *d*, are also remarkable for the extent to which they are developed. In this section of anthracite coal, *Fig.* 37, C, the ducts are of great length, and all the pores are of an oval shape. In our common Clematis, the ducts are of small size, but their mode of termination is well shown in *Fig.* 36, *b*; this is by a septum or septa, situated nearly at an angle of 45° to the long axis of the duct. Now, it often happens that these ducts, originally elongated cells, become continuous canals or vessels, by the absorption of the septa between adjacent ones; but, in some cases, in which the process of absorption has either been incomplete, or fibres, in the form of parallel bands, have been developed in the septa, these may remain at the edge of the septum, giving this part of the duct a very peculiar appearance, somewhat like that of the bars of a gridiron.

In this oblique section of a foreign wood, in which porous ducts abound, the fibres of the septa are well shown; they occur in parallel lines, like the bars of a gridiron, and, as represented in *Fig.* 37, A, the fibres join the walls of the pores at the margins of the ducts. In this section of a fossil palm, from St. Vincent's, the extremities of the ducts are more or less conical, and the fibre at these points is often developed into broad flattened bands, as is well represented in *Fig.* 37, B.

A B *Fig.* 37. C D



Peculiar forms of porous ducts are met with in the Stigmariæ; they are frequently of great length, and in the specimen now shown you there is an appearance of the fibres between the pores of one duct passing across to join those of a neighbouring one.

All the pores of the ducts which have been previously exhibited to you, have been either of the simple or bordered kind; but in some plants certain peculiarities occur which here require mention. In the Clematis, as represented by *a b*, in *Fig.* 36, an oblique line or marking passes through the centre of each pore; but in a specimen of fossil wood from Herne Bay, as described by Mr. Bowerbank, the markings, as shown on a large scale by *Fig.* 36, *e*, are double, and extend beyond the outer margin of the pore. In all these examples the markings, as in the case of those of the woody tissue of Cycas revoluta, are produced by the elongation of the central portion of the pore.

In many porous ducts, and more particularly in the Elm, a spiral band co-exists with large bordered pores. A portion of a duct exhibiting this peculiar structure is represented in *Fig.* 37, D.

ORIGINAL COMMUNICATIONS.

SOME ACCOUNT
OF THE
YELLOW FEVER EPIDEMY
BY WHICH
BRAZIL WAS INVADED IN THE LATTER PART OF THE YEAR 1849.

By J. O. M'WILLIAM, M.D., F.R.S., R.N.
Surgeon to the Honourable the Board of Customs.

(Concluded from p. 428.)

With reference to the appearance of the fever on board another vessel, Dr. Lallemand has the following remarks:—

"In the Rua da Misericordia, between the lodging houses of Flourde and Wood, separated from each by a few intervening dwellings, and exactly opposite Frank's, (the street being about twenty-four feet wide,) is the mercantile house of a German coffee merchant, whose eldest daughter had arrived from Hamburg in the ship Maria Christina, in the middle of December, bringing with her a strong healthy girl. This girl went frequently to the merchant's house, was taken ill on the 8th of January, and died on the 13th, at the house in the Rua da Misericordia, of fully developed yellow fever."

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The sailors of the Maria Christina frequented the merchant's house, and in the course of a few days the fever broke out on board that vessel. The crew of the now infected ship purchased their fresh meat at a Danish butcher's in the Praga da Don Manoel. The apprentice, a German, who sold them the meat, was seized with a violent attack of yellow fever on the 8th; but he recovered in three weeks.

In consequence of the great influx of patients into the hospital from the vessels, on or about the 18th January Dr. Lallemand was ordered to take all his yellow fever patients to the hospital to an uninhabited convent on the "Ilha da Bon Jesus," distant about six miles from the city. It was not until now that Dr. Lallemand's diagnosis, given on the 30th of December, and hitherto severely combated, that the disease was yellow fever, was considered incontestably true.

"From this period," says Dr. Lallemand, "it was impossible for me to take cognisance of all the cases of yellow fever that occurred. The disease fixed itself in the Rua da Misericordia, proceeding from the house above mentioned, running almost without interruption from house to house, though with milder symptoms, and even passed into the narrow or cross streets, until that entire quarter had sickened, while, during that and the following days, not a single suspicious case occurred in any other part of the city."

Towards the end of January the disease seems to have manifested itself in many streets along the river, running down to the banks, and at length surrounded the whole city.

The account of the rise and spread of the fever at Rio de Janeiro, given by Dr. Lee, Dr. Croker Pennell, and other reporters, differs in no important particular from the elaborate report of Dr. Lallemand. Dr. Pennell says, in his pamphlet, that the disease for the first fortnight was confined to the Rua da Misericordia; and that the locality next infected was the "Saude," situated at the opposite end of the city, about a mile and a half distant from the Rua da Misericordia. This district is only a little elevated from the high-water level, with a clayey soil interposed with open gutters, affording a ready lodgment to stagnant water.

According to Dr. Lee, also, the first cases appeared in a sailors' lodging-house, in the "Rua da Misericordia," and then spread along the shore, "attacking vast numbers who inhabited the 'Prainha' and 'Sande,' both localities immediately contiguous to the loading-ground of the merchant shipping. From these spots it quickly spread over the city, attacking all classes."

"In the harbour," continues Dr. Lallemand, "the disease did not take any sudden leaps, but went slowly from ship to ship. There then were lying alongside each other, the Norna, Niord, Scandia, Alfhild, Elizabeth, Maria, Helrenford, Louisa, Vestalinden, Adam, Brave, Frodo, and also another Niord, all carrying different amicable flags, so that the captains and crews visited each other; whereas the American and English vessels, which had less intercourse with the above-named ships, were not attacked by the fever till afterwards."

Subsequently the crews of the Brazilian men-of-war were affected by the fever; and now the far-spreading epidemic raged in and around Rio de Janeiro and in the harbour. "Thus," continues Dr. Lallemand, "the yellow fever was brought into the 'Rua da Misericordia' by the crew of the American vessel coming from Bahia. Here it propagated itself, and was from thence carried into the harbour. And we see the first cases developing themselves, linked together as unquestionably as the closely united links of an iron chain."

While the fever was raging along the flat coasts of Rio, the mountain districts of Petropolis, Nieufreiburg, and Constantia continued perfectly healthy. Accordingly, in February and March, the coast, and numbers of the residents of the city, and of the newly arrived Europeans, fled for safety to those elevated regions. Several were attacked within three or four days after their arrival in the mountains, and some died; but in no case was the disease communicated to the mountain residents. If, however, the German or other colonists of Petropolis, or of any of the other mountain districts ventured down to the flats of Rio, they were almost sure to contract the fever.

This is in perfect accordance with what Humboldt states regarding yellow fever in Mexico. The great "Oracle of Nature" says, "The whites and the Mestizos who inhabit the interior table-land of Mexico, of which the mean temperature is 60° and 62° Fahr., and where the thermometer sometimes falls below the freezing point, are more liable to contract the vomito, when they descend to the Plan del Rio, and from thence to la Antigua and the Port of Vera Cruz, than the Europeans or inhabitants of the United States who come by sea. The farm of L'Encero, which Humboldt found to be 3043 feet above the level of the sea, is the highest limit of the vomito. Here the inferior limit of the oaks warns the colonist who inhabits the central table-land, how far he may descend towards the coast without dread of the mortal disease of the vomito."—*Political Essay, &c.* Vol. II. P. 251.

Petropolis, according to Dr. Croker Pennell, is situated at a height of nearly three thousand feet above the level of the sea. In the month of February, (summer,) the thermometer ranges, from the hottest hour of the day to the coldest hour at night, from about 68° to 80° Fahr. In March, its range is from 62° to 75° Fahr.; in April, from 56° to 72° Fahr. In the coldest night in the depth of winter, (July,) the thermometer occasionally falls as low as 36° Fahr.

The thermometric maxima and minima are here too loosely stated to warrant the application of any of the usual methods of educing from them the true mean temperature with rigorous accuracy; still I think it may be safely inferred, that the mean temperature of the hottest month mentioned, barely reaches the point at which, according to Humboldt and others, yellow fever can be maintained, at all events for any length of time; and, moreover, the indispensable condition of a certain duration of high temperature is wanting. Dr. Croker Pennell states in his report, that the absence of infectious property in the disease at Petropolis cannot be explained by the difference of temperature; for the temperature of the atmosphere at Petropolis was higher at the time the fever patients were there than it was in Rio de Janeiro, in July, 1850, where there were still some bad cases of yellow fever. Dr. Pennell has here overlooked the necessity for a continuance of high temperature to keep the disease alive; for instance, May is a warmer month at Vera Cruz than September or Ootober; but it is in the two last months that the "vomito" commits the greatest ravages, shewing that a certain time is required for the germ of the disease to be developed in full energy. At Vera Cruz the yellow fever does not appear before the medium heat is 75° Fahr., and it never passes the limit of an elevation of 3000 feet above the sea level. As was the case at Petropolis, people frequently carry the disease from the flats near Vera Cruz to the town of Jalapa, situated at a height of 4335 feet, on one of the terraces which occur in the steep ascent to the high table-lands of Mexico; but they have never been known to communicate it to others there.

I have not been able to ascertain with any degree of accuracy the number of deaths from the epidemy at Rio Janeiro and the other provinces of the empire; but it is probable that at Rio Janeiro alone not less than 14,000 or 15,000 persons perished.

At Rio Janeiro, and indeed everywhere else, the disease dealt its fury upon the natives of extra-tropical climates, and more especially upon new comers from the more northern latitudes. Hence, says Dr. Lallemand, "Norwegians, Swedes, and Finlanders, constituted the melancholy trio which furnished the greatest number of victims. The crews of many Swedish and Finland vessels died almost systematically one after the other, and almost invariably after suffering from three to five days." The men of the most colossal stature died most rapidly. Of 299 northern patients treated at the hospital of Bon Jesus, 154 died, and only 145 recovered.

The mortality among the newly-arrived Portuguese was also very remarkable. "In the literal sense of the word, whole families were swept off by this fever." Next to the Portuguese, the Italians suffered most. Of the company composing the Italian opera, seventeen died; as did also nearly every member of an equestrian company. For a long time not a single image-vender, rag-merchant, or umbrella-seller, (who are almost without exception Italians,) was to be seen in the streets of Rio. In many instances, half the passengers who arrived by vessels from Havre de Grace,—nay, sometimes even three-fourths of them, died within three weeks after their arrival.

The three foreign embassies of Paris, Rome, and Washington, each lost its Secretary of Legation.

Dr. Lallemand found the greatest powers of resistance among the English and Americans, and the least among those

before named, viz., the Finlanders, Swedes, and Norwegians; and next to these the Italian seamen from the west coast of Italy.

Having thus given some account of the epidemy in the chief ports of Brazil, it now becomes necessary, in order to clear the ground for the more important points of the inquiry, to determine—

1st. The state of health in Brazil prior to the invasion of that country by the recent epidemy; and

2nd. The precise nature of the epidemy, and whether it manifested itself everywhere in Brazil as the same disease.

The general salubrity of the whole coast of Brazil, south of the equator, in spite of the presence of those conditions of soil and of atmosphere usually considered favourable to the production of disease, has been so remarkable as to cause men engaged in climatorial inquiries to pause before they adopted the commonly-recognised theories as to the origin of fevers and those other forms of disease which are so rife within and in the neighbourhood of the tropics.

And certainly it was not easy for an inquisitive mind hastily to admit the cause-and-effect relation of marshes and rich rank soils, acted upon by heat, and other meteoric agencies, with the worst form of fevers, when it was seen that so great an extent of territory as Brazil, situated in chief part within the tropics, and abounding with every supposed pathogenetic influence, with a population containing Europeans, the mixed races, and negroes, enjoying a high and singularly uniform degree of health.

Dr. John Wilson, in his Statistical Reports on the Health of the Navy, inquires, "Why is it that, in a land-locked harbour in this part of the world, under a powerful sun, surrounded by marshes and rich vegetation, ships lie for months or years without a single case of concentrated fever; while in Asia, in Africa, in North America, and more especially in the West Indian Islands, things, which to superficial observers appear the same, are productive of so much disease and death?"

Dr. Bryson, the successor of Dr. Wilson in the office of medical statistics at the Admiralty, also observes with reference to these shores:—

"Irrespective of geographical position and the almost universal presence of terrestrial sources whence fevers and agues are supposed to arise, they are, from the equator to Cape Horn, regions of surpassing beauty and salubrity."

Examining the whole of the evidence furnished by the various reporters on the late epidemy, it does not appear that, throughout the whole line of coast, there was, with the exception of Rio Janeiro (where, according to Dr. Lallemand, there were gastric and other affections) the slightest deviation from the usual high standard of health, previous to the outbreak of the fever at Bahia in the latter part of the year 1849.(a)

Dr. Lallemand, in his able Report, states that, at Rio Janeiro of late years, during the hot season, thunder-storms, which had the effect of clearing the atmosphere, and heavy rains which cleansed the streets, are now much less common than they were some years back; and that four years since, and during the two following hot seasons, the city was visited by a disease, *sui generis*, called by him "insolation fever," and by others the "polka," which he considered to resemble the first stage or stadium of yellow fever, but never developed any of the grave symptoms, such as black vomitings, suppression of urine, and yellowness of skin, which characterized the late epidemy. Dr. Lallemand also says that the summer of 1849 was indisputably hotter than during former years, and that, although there was a good deal of lightning, there was little thunder or rain, and that gastric fevers were common. All the other medical men who replied to the question, "Was Rio healthy before the epidemy began?" distinctly declare that "the city was remarkably healthy." The same may be said of Bahia, Pernambuco, Para, and other ports from which information has been obtained. Mr. Cowper, the Consul at Pernambuco, informed me that the population, before the appearance of the fever, was very healthy, that the temperature of the atmosphere was 2° less than during some seasons, and 3° lower than it was two years ago.

I think, then, we have reason to believe that there was nothing remarkable in the weather along the Coast of Brazil during the summer of 1849, and that the inhabitants generally were in good health before the outbreak of the recent epidemy.

Regarding the nature of the epidemy; time will not allow me to go over the history of symptoms described by each individual reporter; but no one who will take the trouble to read those accounts, can for a moment doubt that the disease was yellow fever. The red, bleary eye, the black vomitings, the yellowness of the skin, the suppression of urine, and the rapid progress of the disease, sufficiently determine its nature.(a)

It may then be allowed, that the epidemy by which various provinces of Brazil were invaded during the latter part of the year 1849, was yellow fever.

The next and most important point to be ascertained is, whether this epidemy was of endemical origin, or a foreign introduction.

Ferreyra da Rosa, a physician, of Olinda, in Brazil, describes a disease similar to yellow fever as having prevailed there in 1687, immediately after the conquest of Pernambuco. It was at this time that the ship Oriflamme, on her voyage from Siam to the West Indies, touched at Olinda, and, as it is said, became there infected with yellow fever, which she afterwards introduced into the island of Martinique, where Père Labat, on his landing, found the disease committing great ravages. Sir Gilbert Blane says that the yellow fever was "introduced into Lisbon in 1723, probably from Brazil." Dr. Gomes dos Santos, a physician still at Rio de Janeiro, states, that a fever, attended with "yellowness of skin and vomitings," but altogether of a milder form than the late disease, prevailed in that city during the years 1808-1809, but that it excited no interest beyond the limits of the province, Europe being at that time too much occupied with political events to take any notice of a fever in Brazil.

Attaching to these statements all the importance that belongs to them, we must, I think, admit, that nowhere in Brazil has there existed, within the memory of man, an epidemy similar to that which has recently ravaged that country.(b)

Yellow fever, from time immemorial, has occasionally raged in the adjoining countries, the Guyanas,(c) and in the West Indian Islands; but in Brazil, until 1849, the equator had always been considered the barrier against the progress of this pestilence southward.

In 1849, however, the yellow fever passed this boundary, and, according to all accounts, Bahia was the place where it first appeared. The situation and some of the leading features of Bahia have been already alluded to, as well as the immunity of that city, in common with the whole of the Brazilian coast, from disease, previous to the arrival of a vessel infected with yellow fever. And it now remains for me to inquire how far the supposition of the disease having been imported into Bahia is borne out by the circumstances of the case.

Here I must observe, that, besides the Brazil, another vessel, called the Alcyon, (by which the yellow fever is supposed to have been afterwards introduced into Pernambuco,) a French slaver, has been blamed for carrying the yellow fever to Bahia. Dr. Paterson, however, whose statements are altogether more circumstantial than any of the others I have seen, speaks only of the Brazil. Therefore I

(a) It may be proper to mention that at Rio de Janeiro, at Pernambuco, at Bahia, and probably all along the Coast of Brazil, the inhabitants had, during each summer of four years preceding the late epidemy, suffered from a mild form of fever, which in no case proved fatal; and was therefore jocularly called the "polka," from the fact that its appearance in Brazil was nearly coincident with the introduction of the well-known dance of that name into that country. No one was twice attacked by the "polka;" but the fact of having had it gave no protection against an attack of its fatal successor, the yellow fever. I recollect that somewhere about the year 1830 a mild fever of this kind ran through nearly the whole of the West India Islands. Like the polka in Brazil, this fever obtained a whimsical appellation, "The Dandy Fever."

(a) Suppression of urine was a very usual symptom during the yellow-fever epidemy at Boa Vista in the Cape de Verde during the years 1845 46. Louis, in his account of the yellow-fever epidemy at Gibraltar in 1828, speaks of suppression of urine as only an occasional and rare symptom.

(b) Mr. Cowper informed me that some old inhabitants of the province of Pernambuco affirm, that it was visited by a fatal epidemy in 1790, and for some years previous to that year.

There was also a report at Rio de Janeiro that a fever prevailed there at the close of the last century. Nothing certain concerning either of these epidemics has been obtained, either from oral tradition or literary sources. Garcia, in his "Memorias Historicas de Pernambuco," mentions an epidemic disease as having prevailed at Pernambuco between 1812 and 1820.

(c) Yellow fever prevails at the present time in French Guiana, the country adjoining Brazil. It is worthy of remark, that its first victims were among those of the higher ranks. The Governor, the Bishop, and the President of the Court of Appeal all died in the early period of the epidemy.

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am inclined to think that, if the origin of the disease at Bahia is to be ascribed to importation by a vessel, that vessel was the Brazil.

In the examination of this question I may be allowed to adopt the principle that guided me while investigating the Boa Vista epidemy, in which I considered that, although much light may be thrown upon the nature of the disorder during its ulterior progress, it is to the first cases of the epidemy that we look for the commencing link in the chain of that process by which we may trace out its true history, and ascertain the properties with which it is endowed.

Two deaths had already occurred on board the Brazil before her arrival at Bahia;(a) and from the concealment of them, as well as of two others that afterwards took place on board, it is probable she had the disease on board at the time of her arrival, on the 30th September, 1849. No case, however, was seen until the 3rd November, or before 34 days after the Brazil's arrival.

The first case, a Brazilian boy, who lived over a store frequented by the captain of the Brazil,(b) had been ill for several days, and, as death with black vomit ensued on the afternoon of the day on which he was first seen (3rd November,) the probability is, he had been laid up for four, five, or it may have been seven or nine days, thus reducing the interval between the arrival of the vessel and the occurrence of the first case to 30, 29, 27, or even 25 days. The second case, an Englishman, long resident in the country, who had been often visited at his own house by the captain of the Brazil, was also seen by Dr. Paterson on the 3rd November. The Englishman recovered; but, during his convalescence, a young man who lived with him was seized with the disease, and died on the ninth day with black vomit.

The occurrence of the first case being, at the lowest reckoning, 25 days after the arrival of the vessel suspected of having brought the disease, would leave a long period of inactivity on the part of the disease, between the ship and the shore, were we obliged to believe that the fever poison, if imbibed at all from the captain, could only have been imbibed on the first day. But we are by no means driven to adopt such a supposition. The captain, for a considerable time after the arrival of the vessel,—in fact, until the death of the boy,—had been in the daily habit of visiting the American store and the house of the Englishman;(c) therefore, supposing that the boy and the Englishman were infected by the captain, infection may have taken place after an interval sufficiently long from the arrival of the vessel to bring the incubative period within a very reasonable limit.

But then it nowhere appears that the captain was at all sick; therefore, if he infected the boy and the Englishman, he must have done so through the medium of "fomites," a means of communicating disease the existence of which many will be disposed to question, even more than that which is said to result from contact with a sick person, and concerning which all must admit our knowledge is still in a very imperfect state. The information from Dr. Alexander Paterson, which, as has been already mentioned, was not received until some time after this paper was written, renders the introduction of the fever into Bahia by the Brazil even still more probable. Dr. Paterson, to use his own words, "on the strongest possible evidence," ascertained that the disease first appeared in that part of the city (Santa Barbara) where the passenger by the Brazil went to lodge, and within three weeks after that vessel's arrival.

But, independently of all reasoning regarding the period of incubation, or the exact period of the outbreak of the epidemy, I would ask the candid and unprejudiced, whether it be not a remarkable fact that Bahia was the port of Brazil first invaded by yellow fever, and that at that port a vessel had a short time before arrived, which, if not actually at the time suffering, had suffered during the passage from this terrible scourge?

If, as some allege, the yellow fever of Brazil was due to an endemial cause, it must I think be admitted, as indeed singular, that throughout this vast empire, comprehending a territory at least twelve times as large as the whole of France, the very first spot that curse should select for the development of its influence was that at which a vessel infected with the same disease had just before arrived.

That the outbreak of the fever at Bahia, and the arrival of a vessel infected with the same disease were mere coincident events, is certainly possible. But those who contend for such a coincidence must allow that it was, under all circumstances, one of a most extraordinary nature.

At Pernambuco the first case occurred in the cleanest and airiest part of the town, and that furthest removed from the harbour, within a week after the arrival of a vessel infected with yellow fever. Some cases had been received into the French hospital (San Antonio) from this vessel. But there is no evidence to show that Dr. Paton, the subject of the first case, was ever near them or the infected ship.(a) The next case was Dr. May's apothecary, who also lived in the British hospital (Boa Vista.) From this centre the disease radiated, first over the whole city and afterwards throughout the entire province. Mr. Cowper, the Consul, informed me that during the progress of the epidemy many positive instances of contagious propagation came under his own notice, of which the following are examples:—

In the early part of the epidemy a wagoner was sent into the city from Engenhio Caruana, an estate five leagues in the country, belonging to Dr. Domingos de Souza. Having finished his business in the city, where he remained many hours, the wagoner sickened on his way home, and shortly after his arrival there showed unequivocal symptoms of yellow fever, of which he soon died. Those who attended him were next attacked, and the disease speedily spread over the whole estate. So great was its mortality, that Dr. Domingos was obliged to beg aid from the neighbouring estates, which was refused, upon the ground that the appearance of the disease on his own estate afforded so palpable an evidence of contagion. Mr. Cowper is certain there was no disease on the estate before the return of the sick wagoner from the city.

Mr. Cowper furnishes another case of this kind. He says: "When all communication with the Alcyon was forbidden, M. Lassere, her consignee, offered this measure all the opposition in his power. To show his contempt for infection, he went on board the Alcyon daily for several days until he was laid up with fever, and died upon the third day. His death created the greatest panic on shore. Up to this period, the fatal cases had been confined to seamen and new comers; but M. Lassere was a man of robust constitution, had been resident in the country twenty-five years, and his wealth enabled him to obtain the first medical aid; notwithstanding all this he died, and from that moment no one considered himself safe. He died at his country house in the village, or rather district, of Capunga, where my cottage adjoined his place. Capunga had been perfectly healthy up to this period; but, within a week, twenty cases of fever, and five deaths, had occurred."

At Rio de Janeiro a considerable time elapsed between the arrival of the vessel alleged to have introduced the yellow fever, and the appearance of that disease on shore.

Dr. Lallemand infers from the disproportionately small number of her crew (nine) for a bark, and from the suspiciously hurried manner in which the captain disposed of his vessel, that she had already before arriving at Rio lost some men from fever. But in a case of this kind mere conjectural evidence cannot be taken. Granting that there were suspicious circumstances attending the arrival and selling off of the vessel, there is no proof that her crew were at all sick at that period, and no one of them was found sick earlier than the 28th of December, 1849. It is true, the man Andersen, one of the Navarre's sailors, had been laid up some days at Frank's house, before his admission into the "Rua da Misericordia" Hospital. Now, making the same allowance for the probable period he was ill at

(a) The Brazil arrived on the 30th of September, having landed a cargo of slaves at Havannah. "There is no doubt of some of the crew having died on the passage."—Consul Porter's Letter.

(b) The first victim was in the house frequented by the captain of the Brazil, and among the first was the American Consul, who, it is believed, was on board the Brazil. Four or five others, living in the same hotel with the American Consul, died among the first.—Consul Porter's Letter.

(c) The captain of the Brazil slept in the Englishman's house, and the American Consul, whose house he frequented on duty, were among the first victims.—Speech of the President of the Province, at the opening of the Provincial Assembly at Bahia, 1st March, 1850.

(a) In a former note, written after this paper was read at the Epidemiological Society, I have said that the only known connexion between Dr. Paton and an infected place, was a seaman from Bahia, who entered the British Hospital with fractured ribs. I learn from Dr. May, now in this country, that, before Dr. Paton was attacked, one or two other cases had occurred in the town immediately after the arrival of the Alcyon;' but that their occurrence was kept secret. Dr. May says, from this circumstance he could not discover whether they could be traced to contact with the Alcyon or her crew, although this very probably was the case, as they lived in that part of the town much frequented by seamen.

Frank's house, as was made in the cases at Bahia; and deducting accordingly four, five, seven, or nine days from the time of the Navarre's sailing from Bahia, and the same number of days from that of her arrival at Rio de Janeiro, the interval between the outbreak of the disease among her crew, and those periods respectively, will be reduced to twenty-nine, twenty-eight, twenty-six, or twenty-four days; and twenty-one, twenty, eighteen, or sixteen days.

Dr. Croker Pennell states that there were many cases where no source of infection could be traced. He also says that several masters of vessels declared to him that, though coming direct from Europe, fever made its appearance on board of their ships as soon as they approached the coast of Brazil, and that, from the accounts the masters gave of the disease, it appeared to be the same as that prevailing at Rio, but slighter. The same was said regarding vessels arriving at Bahia; but Dr. Paterson soon found out that these cases were merely from attacks of the mildest nature, and not yellow fever.

The argument derived from the long absence of yellow fever from Brazil may alike be taken hold of, although differently applied, by those who favour and those who oppose the doctrine of the contagious nature of this disease.

The former may, with propriety, ask, How is it that, for nearly a century, yellow fever has not appeared in Brazil, if the recent epidemy depended upon endemial causes, seeing that, at the period in question, there was no meteorological or other influence likely to induce any unusual operation of such causes?

The latter may, with equal reason, inquire, why, if the yellow fever was imported into Brazil, was it not introduced until lately, seeing that there has been, for a long period, constant and unrestricted intercourse between the ports of that country and the coast of Africa, the Havana, New Orleans, and other places notorious for the prevalence of yellow fever?

As it would be difficult, if not impossible, in the present state of our knowledge, to answer the question of either party, the value to each of any argument deduced from the long immunity of Brazil from yellow fever, is thus, to a certain extent, neutralized; nevertheless, I think, it must be owned, that the general healthy condition of that country immediately before the outbreak of the late epidemy, is a fact of considerable importance in the present investigation, inasmuch as it has enabled us to determine with accuracy the periods at which the various ports were invaded by the fever, and, moreover, will assist us materially in endeavouring to ascertain why some intermediate as well as distant ports continued wholly exempt.

The following Table shows, at a glance, the chief ports that were invaded by the fever, and some of those that escaped, during the epidemy of 1849-50.

Place.	Latitude.	Longitude.	When Fever Appeared.	Remarks.
Bahia	13° S.	58° 42′ W.	Nov. 3, 1849.	Ship "Brazil" arrived 30 Sep., 1849, sickly, from Havana.
Pernambuco ...	8° S.	34° 56′ W.	Dec. 25, 1849.	Ship "Alcyon" arrived from Bahia, having been sickly on the voyage, 17th Dec. 1849.
Rio de Janeiro.	22° 53′ S.	43° 12′ W.	Dec. 10th, Island in Bay, Dec. 23th, City.	Ship "Navarre," Dec. 3, 1849, arrived.
Paraiba	... ...	... ...	January, 1850.	... ...
Para	1° 18′ S.	... ...	March, 1850.	... ...
Porto Allegre, Rio Grande do Sul.	30° S.	... ...	April, 1850.	One case only in the whole province.
Maranham ...	2° 30′ S.	43° 50′ W.	Escaped.	Rigorous Quarantine.
Ciara	Between 3rd and 4th degree South Latitude.	... ...	Do.	Little or no communication with infected ports.
Aracati ...		... ...	Do.	Do.
Parnahyba ...		... ...	Do.	Do.
Monte Video ...	34° 55′ S.	56° 10′ W.	Escaped.	Quarantine.
Buenos Ayres in Rio de la Plata.	34° 37′ S.	58° 21′ 11″ W.	Do.	Do.

Thus it is evident that the Brazil epidemy first broke out at Bahia, next at Pernambuco and Rio de Janeiro, the ports having the greatest intercourse with it, and afterwards at the other ports not in the order of proximity; but in the order of the frequency of their communication with an infected place.

There was fever at "Maceio," a port between three and four degrees to the northward of Bahia, before it was in any of the intermediate towns along the coast; and at Pernambuco, five degrees to the northward of Bahia, before it was at any of the many intervening towns. Passing Maceio, it broke out at Pernambuco, and was thence imported into Maceio by an infected vessel from Pernambuco.(a) It was at Para in 1° 18 south, in March, 1850; but all the while the ports of Maranham, of Parnahyba, of Aracati, and of Ciara, all lying between the second and fourth degree of south latitude, continued free from the disease. The escape of Maranham is ascribed to the rigorous quarantine enforced there upon all vessels from infected ports; that of the other three places just mentioned, to the almost total absence of any communication with those places where fever existed.

In the same manner the yellow fever was at Rio de Janeiro, ten degrees to the southward of Bahia, before it was anywhere, even within 100 miles, in the same direction. At Port Alegre, in Rio Grande do Sul, about eight degrees south from Rio Janeiro, there was one case in April. Monte Video and Buenos Ayres, in the Rio de la Plata, each enforced strict quarantine; and, although both were visited by infected vessels, they entirely escaped.

Had the disease depended upon a general morbific agency in the atmosphere, its spread certainly could not have been so obedient to a law regulated by the greater or lesser intercourse of places with infected ports; nor could its visitations along a line of coast of more than 4000 miles have been so partial, irregular, and capricious as they seem to have been. As little can the presence or absence of endemial localizing influences explain the invasion of one place by the fever, or the immunity of another. Witness the opposite results at Para and at Maranham ports, nearly similar in regard of climate and general physical condition.

Again, places very dissimilar as to situation, soil, and climate, equally continued free from the disease. Monte Video and Buenos Ayres, both lying beyond the southern extremity of Brazil, with a moderate climate, the one standing on a promontory on the northern bank, and the other on the southern bank of the river Plate, escaped throughout; but so did also Maranham, burning under an average annual mean temperature of 80° Fahrenheit, and within two degrees of the Equator.

I consider, then, that the whole tenor of the evidence adduced bears out the following conclusions:—

1. That the Brazilian yellow fever epidemy did not arise from endemial causes.

a. Because, notwithstanding the presence of supposed endemial causes, yellow fever has been for nearly a century unknown in that country.

b. Because places where endemial influences were abundant escaped altogether.

2. That the epidemy did not depend upon any general morbific agency, either stagnant in or travelling through the atmosphere.

a. Because while some places were affected by the fever, others near to them, and under the same conditions of soil and climate, remained free.

b. Because the disease sometimes followed the direction of the south-east trade wind, and at other times travelled in the teeth of that wind.

3. That the evidence of the importation of yellow fever into Bahia, Pernambuco, and Rio de Janeiro, although not of so absolute and positive a nature as there was in the case of Boa Vista, in the Cape de Verds, is still sufficiently presumptive to warrant the belief that that disease was a foreign introduction into these and other ports of Brazil.

a. Because each of these ports was healthy before the arrival of a vessel infected by yellow fever.

(a) The late Dr. M'Ilardy, of Maceio, thus wrote to Dr. A. Paterson:—"The English ship Emperor arrived from Bahia on the 23rd December, with two of her crew convalescent, two having died in your hospital and another here, on the 27th, with black vomit; but I believe the disease was communicated here, not by her, but by a passenger who came from Bahia in a steamer, about the 25th, lived on shore in the house of a Portuguese merchant, where I was called to attend him the night he arrived. Some days after, a clerk in the same house was taken ill; and one of the partners died with black vomit, on the 12th Jan., 1850. All these parties had their meals in a room where the passenger slept on a sofa."

(b) Because, after the appearance of the disease on shore, its spread was in accordance with the law of contagious diseases, and because positive evidence of contagious propagation was manifested in several cases.

c. Because ports, having little or no communication with infected places, and ports at which quarantine measures were adopted, entirely escaped the disease.

Lastly: Yellow fever, unlike cholera and typhus fever, which may prevail at ordinary and even at low temperatures, requires a high temperature, and that of some duration, for its maintenance.(a) It is even driven from the flats on the coast of intertropical Mexico between the months of November and March, when the mean heat does not exceed 71° Fahr. Wherever this disease has visited in the old world, it has always been preceded by a season of unusually high temperature. The mean heat of the hottest month in England does not exceed 61°3 Fahr.(b) Hence, experience justifies us in concluding that yellow fever, even if introduced into this country, can never find an abiding-place here.

HOMŒOPATHY.

By J. STEVENSON BUSHNAN, M.D.,

Senior Physician to the Metropolitan Free Hospital.

"With a team of little atomies."—SHAKESPEARE.

No one questions the undoubted truth, "*Ex nihilo nihil fit*," but it would seem no less reasonably to be matter of universal belief, "*E minimis minimum exit.*" Our era, however portentous in every thing that can excite the mind, agitate the fancy, or divert it from the vulgar and every-day path of observation, has been witness to the birth and development of a new-fangled theory of practical medicine, as astounding in the potency of the cures it affects to perform, as surpassing strange in the littleness of the powers which it wields to accomplish its great ends. I say littleness of the agents patronised, for it is preposterous that these undaunted professors should be permitted to shield themselves under the protecting sanction and ample cover of the apophthegmatic adage, "*Similia similibus curantur.*" The main *spell* on which the whole of their art of healing diseases depends, is based on the action of the millionth, or it may be the ten billionth atom of a grain of matter. This, indeed, they openly aver—it is the essential ingredient in their creed—or practice we should say—it is the *sine quâ non* of their art; and, forsooth, like any other lie of the day, it is founded on the unerring basis of "experience and observation." That all quackery is a delusion—a juggle—a deception played on the masses, for the mere money aggrandizement of a few, the every-day experience of our advertising media abundantly testifies; and no one will therefore wonder that Homœopathy is one among these many imposing arrays, which flit across the arena of the quack exchange, destined, in its own proper time, to sink into the pool of oblivion, where all such finally are to be engulfed.

However truly this may be applied to the doctrine in question, there are certain features connected with this mode of the healing art, in virtue of which it has commanded the attention of the public in a more than ordinary manner.

First of all, it was promulgated by a legitimate member of the Profession; so that it had something more than the apology of mere vulgar assurance for its patron and supporter.

Secondly, independently of the common herd of pretenders always ready to pounce on any project by which the public may be gulled, it has acquired a most extended influence over the minds of many of the legitimate professors of the healing art.

Thirdly, the sanction of legitimate authority has had a most palpable effect on the minds of the people, however suspicious at the first blush the practice might appear.

Fourthly,—and on this point I feel disposed somewhat to enlarge,—many people have become partizans of the homœopathic creed, less from any positive notions of the efficiency of their principles, than from a natural aversion to the working system of our ordinary medical practice, the whole art of which would seem to rest in the ceaseless exhibition of pills, potions, draughts, mixtures, &c., as if the ratio of probability of cure was exactly in the ratio of the quantity of medicine swallowed. Man naturally is not a medicine devourer; and, however much he prizes health, he is naturally or constitutionally, even when positively ill, most reluctant to call in advice. Now, this repugnance to physic must be founded on some principle of the human constitution. It is too universal, and at the same time of too definite a character, to be altogether an incidental whining like the fancies of the love-lorn maid, or the silly and unreasonable antipathies of more solid judgment. It arises, I would say, from that confidence in the powers inherent in the animal body, through the sole force of which it is enabled to rally, even from very serious diseases, despite even errors of commission on the part of the patient, or his rash acquiescence in the family recipes of intermeddling friends. This inborn feeling exists in all persons, and it is only through the effects of habit, transmitted from sire to son, that there exists even the slightest disposition on the part of the public to throw off the guardian influence of the *vires medicatrices naturæ*, substituting in their stead, the whole host of the Alexipharmics with which our Pharmacopœias teem, and with which our drug shops are so amply and invitingly supplied.

Furthermore, in addition to this instinctive feeling of throwing physic to the dogs, a more widely diffused knowledge of the laws of the animal economy has established itself among the various grades of the community, and, without totally discarding drugs, all feel it

> "Better to hunt in fields for health unbought,
> Than fee the doctor for a nauseous draught."

We feel we can command health by the proper exercise of the corporeal functions, and hence we are naturally led to follow the views of those who allege they can restore the disturbed balance of the animal economy by the smallest amount of medicine; we jump as it were at once into the arms of the homœopaths, who know full well that the system of drugging is but an indifferent substitute for insuring sound health, or for securing for the body an immunity from disease. This the lay parties begin to perceive; and hence the *furor* for the system so named of the homœopaths; hence the brass plates with the post-fix "homœopath," to the university honours of M.D. or M.B. It is hence also, we fear, an explanation is to be given of the mergence of some—nay, not a few—of the band of regulars into the delusions of the new system, simply on the plea that it *tells*, backed by the irresistible argument "*il faut vivre.*"

A three-fold evil thus steals in the wake of the declaration and diffusion of this special mode of treating diseases. In the first place, as indeed holds true in all one-sided views of practical medicine, by pertinaciously insisting on one principle alone, at best (supposing the dogma generally correct) the truth can only be partially elicited, and but imperfectly developed. In the second place, the adoption of infinitely small doses as a means of cure, leads to a most serious and injurious line of practice, as there are many diseases in which powerful and large doses are indisputably demanded. Finally, a popular delusion is sanctioned under the guise of

(a) Rush is the only author, so far as I am aware, who considers that yellow fever can be maintained under a low temperature. Sir Gilbert Blane was of opinion that Leghorn, 43° north latitude, was "the most northerly place it could reach." Caillot says yellow fever was imported into Brest (in 48°23 north) and communicated to a custom-house officer of that place. His words are: "La ville de Brest, situés beaucoup plus au nord que Cadiz, a pourtant eu de preuves non equivoques du caractére contagieux de la fievre jaune. Lorsque cette maladie étaît dans toute sa force au Cap (San Domingo) et qui revenait beaucoup de vaisseaux à Brest un employée des douanes fut placé abord du l'un qui avaient perdu du monde pendant la traversée; pendant le temps de son sejour abord, cet homme contracta un fievre jaune, dont il mourut dans moins de trois jours." Two other custom-house officers were afterwards attacked, and one of them died. Cases similar to these occured in the Eclair, while on her passage from the Motherbank to Standgate Creek, and while at Standgate Creek, in October, 1845. There were also two men sent on shore to Woolwich Infirmary, from the Growler, (which, like the Eclair, had just arrived from the west coast of Africa,) who died of unequivocal yellow fever. Neither the cases at Brest, nor those in the Eclair, can be considered to furnish absolute evidence of contagious propagation; for some will say that they were caused by the agency of a local cause in the ship herself, independent of the crew. They merely show that yellow fever can exist, for a very brief period, in countries situated considerably beyond the tropics.

(b) Mr. Glaisher, of the Royal Observatory, Greenwich, has kindly given me the following mean temperature of every month, as deduced from 79 years' observations:—

	Fahr.		Fahr.
January	35°7	July	61°3
February	38°2	August	60°5
March	40°9	September	56°8
April	45°7	October	49°8
May	52°6	November	4.°4
June	58°0	December	36°8

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scientific accuracy and precision, and the very existence of the science of medicine is questioned.

Maxima minimis curantur, minora sponte cedunt would be a more appropriate title for the principles of the homœopathic faith. Indeed, the term Homœopathy is a false one, and as appositely designates the actual character of the doctrine as the word *lucus* is distinctly expressive of its origin from the term *non lucendo*. What, then, is the effect of these infinitesimal doses? Or is it not that they are virtually equivalent to what they really are—that is to say, tantamount to nothing—the patient meanwhile recovering through the unaided efforts of nature, though apparently indebted for his cure to the fractional division of the millionth of a grain of matter? Let it not, however, be urged that this is Homœopathy; and, on the other hand, when the maladies are of such a character that they do not yield to the spontaneous efforts of nature, what plea or defence can be urged in favour of the homœopath, (the minimist, or the minimum medicine man,) when the patient dies simply because the means employed are absolutely inadequate to effect the object contemplated.

So far I have considered the question merely as it affected the character of those who profess homœopathic principles. I have now to consider the probable effect of these infinitesimal doses on the minds of those who, as laymen, advocate the views of the homœopaths. That this will eventually be detrimental to the homœopaths themselves, I have no doubt, while I also believe it will be prejudicial to physic generally. Men are thus led to unbelief in all physic; for belief in the infinitesimal doses is actually giving credence to nothing. If *nothing*, then, can effect cures, what ulterior faith is to be given to the assertions of the allopaths, or to any particular medical sophism? Why, none; and the public will at length see nothing but selfish partizanship in the abettors of either system. A necessary conclusion, for which much plausible argument may be found.

The *medicine expectante* of the French school, the essence of which is patiently to observe diseased actions, while nature effects the cure, is decidedly embraced in the secondary (primary ?) principle of the homœopath; for there is none of that caste who really is of firm belief that the small doses —the infinitesimals—the *quasi*-sections of atoms which they employ, can be virtually of any action on the animal economy.

> "No wild enthusiast ever yet could rest
> Till half mankind were like himself possess'd;"

and in that mode only can I conceive it possible that he has any belief in the doctrines.

But he knows well the natural inherent tendency of the body to rally and recover, even from the most grave affections, by the unaided efforts of the constitution. When this is an acknowledged principle on all hands, and which can scarcely be said to demand any illustrative proof, it is needless to observe, that many of the alleged most successful cases of the homœopaths must have been effected altogether independent of the aid of his art, as guided by his "team of atomies." The cultivated mind at once perceives these facts, and, though not opposed to legitimate medicine, is apt to believe, with that credulous simplicity characteristic of the lettered, that the homœopath, being a successful practitioner, is therefore, judicious and scientific.

That the practice of medicine is an art—not a *vox et preterea nihil*—cannot be a subject of doubt. But that it is *less* an art when it does not interfere with the processes of nature, is what the vulgar mind is too apt to conceive—a prejudice, alas! too common, and the prolific source of all the endless modes in which the public mind is deceived, and led enslaved by countless quacks.

Surgery differs certainly, in one most marked point, from physic, in so far as all its acts are palpable. They produce an obvious result—not so medicine; the internal pill or draught may or may not be the cause of the patient's recovery. Hence the mystery of the art—its glorious uncertainty—and hence the unmeasured field of speculation it offers to the cool and calculating charlatan.

I unhesitatingly aver that there is a dishonesty in the professions of the homœopath, as he now practises his art, or, rather, as he has now in a considerably qualified manner, been compelled to prosecute it. I wage war, not with men, but with the principles professed by men; and I wage a relentless war with those who, under the garb of one creed of medical tactics, adopt all the successful principles which have arisen at various epochs; the result of the meditations of men widely different in mental character, as well as in medical acumen. Other explanation I cannot offer of this apparent wide-spread and easy adoption of the homœopathic system.

Homœopathy, then, is a false system, as it assumes to cure diseases according to the old adage "*similia similibus curantur*," while it scarce ever ventures to put that principle in execution. It is false, secondly, that it cures by the forms of medicines which it prescribes, for they have been proved to be inefficient. Thirdly, it is also false, inasmuch as it claims, without just grounds, the credit of those cures which have been the result of the prescriptions respectively enjoined by these sound family physicians,—Doctors' Diet, Rest, and Quiet.

We have further to reflect, that we would take a very imperfect view of this question, if we did not take into consideration the marked and most striking change that has come over the minds of the people, especially the thinking part of the community, within the last thirty or forty years. Passive generally, the most of individuals were under the treatment of their medical men; and though at times the more intelligent might have been disposed to inquire into the *rationale* or principles on which their ailments were treated, the masses of the people were incapable of making any speculations on their physical conditions, partly from their want of habits of thinking, and partly from their total ignorance of the fabric of their bodies.

I would insist on the homœopath confining himself strictly to the *similia*; when he goes beyond it he becomes a legitimate member of the vulgar herd of quacks. While, if he continues within the precincts of the doctrines which he has meted out to himself, he will be respected at least as the sincere partizan of a principle, however wide his walks may be from the great mark of truth, which we all so zealously labour to compass. It certainly is not by raillery that their principles are to be assailed; but their plunderings in the domain of other doctrines, and theoretical expositions of other's medicine, are a legitimate field for exposure, and prove, to us at least, the scraggy barenness and hollowness of the system which they support.

Your quack is certainly no doubting man; he does not belong to that class so appositely described, of

> "Philosophers who darken and put out
> Eternal truth by everlasting doubt."

Brisk, full of confidence, with a face possessed of an imperturbable assurance, and complete self-satisfaction in his own powers, there is no difficulty which he is not able to control—no obstacle which does not yield submissive to his spell; and, if he cannot convince you of the truth and infallibility of his doctrines, he can at least boast of his own thorough conviction. How far a mind so constituted is adequate to comprehend and adapt itself to all those nice shades of discrimination, which the endless forms of disease demand, modified as they hourly are by the no less boundless varieties of individual constitution, I shall not pretend to say; suffice it, however, to observe, that the most profoundly learned members of the Profession—men of the highest scientific attainments, as well as of the most extended experience, from the imperfect knowledge that they possessed (notwithstanding all their talents) of the actions of the human body in health and disease, have, in proportion as they advanced in years, begun to waver about the positive efficiency of their art, preferring, in the greater number of instances, to become silent lookers on in their attendance on the sick, rather than hazarding the risk of impertinent meddling with the grand and all efficient workings of the human body. So true is it,

> "Fools will rush in where angels fear to tread;"

and so true also is the efficiency of the natural powers of the human body, irrespective of all the *finesse* of art, and the highest refinements of the most accomplished physician.

Much, then, as I deprecate the whole principle of Homœopathy, and painfully as I lament the dereliction of so many of the legitimate artists of our Profession to swell the rank of the Hahnemann brigade, perhaps more impelled through the necessity of bending to the prevailing fashion of physic, I nevertheless perceive, with Shakespere, that

> "There is some soul of goodness in things evil,
> Would men observingly distil it out."

I hail the extension of this doctrine, as being an indirect *curvette* in the progress of medical science, teaching alike

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the practitioner and the people, that the duty of the physician is not solely to prescribe physic—that his duty is to watch the progress of nature, and by no profane hand attempt to interfere with her proceedings. It is assuredly a round-about mode of getting rid of the swamping system of drugging enforced in the present code of Hippocratic art.

Medicine is a progressive science; and, tracing its earliest germs to the present time, it will be found that it is approximating to precision more decidedly than heretofore. The question might here be raised, whether our colleges, as guardians of the laws of health and the administration of the degrees of medicine, are not called on to step in on the present occasion and state what really is the actual position of the question. It is a duty they owe the public; the public will feel assured by their exposition; rationalism will prevail over empiricism; the boundaries which separate the hireling nostrum-monger from the legitimate practitioner will be clearly defined, and a general spirit of manly confidence be secured, instead of the doubt, distrust, and uncertainty which affect all parties,—disarming the physician of one of his most powerful co-operative agents: the full reliance of the patient on his sagacity, knowledge, and wisdom,—preventing the patient applying for medical aid through distrust of the efficacy of art, and probably a general though indiscriminating doubt as to the value of any medicine whatever. Follow your leader is a principle worth considering; and, when there are so many blind leaders of the world, it would be worth considering if the Colleges would merely be performing their duty in proclaiming to society at large the principles which they espouse as the rule of their conduct; and then I have no doubt this homœopath fungus of the hour would soon decline to its primitive insignificance.

7, Nottingham-place, Regent's-park.

ON THE PATHOLOGY OF THE UTERUS, ITS ANATOMY AND PHYSIOLOGY.

By T. SNOW BECK, M.D. Londin.,
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[Continued from page 178.]

II.—THE CAUSES OF THE CONTRACTIONS OF THE UTERUS.

That the contractions of the uterus are *independent* of the cerebro-spinal system. In proof of this we have, (A) Experiments upon Animals; and (B) Cases of Parturition under the influence of Anæsthetic Agents.

(A) EXPERIMENTS UPON ANIMALS.

(a) The experiments of Dr. Tyler Smith (*London Journal of Medicine*, December, 1849.)

1. A guinea-pig being placed under the full influence of chloroform, "the limbs remained stiff even when pinched or pricked, so that neither sensation nor reflex motor action remained." The action of the chloroform being pushed to a further extent, the sphincters of the bladder and rectum were relaxed, so as to allow of the escape of their contents, and all the muscles of the body remained loose and flaccid.

The spinal marrow was now divided in the dorsal region, and the abdomen laid open. "A stilette was passed down the spinal canal, so as to destroy the lower portion of the spinal marrow. No movements whatever occurred" in the limbs; whilst "the uterus and the rectum and colon were affected with vigorous peristaltic action, under the stimulus of the air, pricking with a needle, caustic, potash," &c.

"When the chloroform had been continued sufficiently long to annihilate all the other reflex actions, imperfect acts of respiration still continued."

"A nerve supplying the abdominal muscles being isolated and pinched with the forceps, these muscles readily contracted."

2. "A fresh guinea-pig was nearly killed with chloroform, and a stilette was at once passed through the whole of her spinal marrow, from the cauda to the cranium, but no spinal movement of any kind took place. The spinal marrow was broken down entirely; still the peristaltic action of the heart, intestines, and uterus had not ceased. The contractions of the heart, intestines, and uterus, had each their own peculiarities of action."

3. "The frog was placed under a glass, enclosing a little bibulous paper wet with chloroform. When the animal became thoroughly under the influence of chloroform, the most excitor parts of the surface of the body were successively irritated, in order to test for reflex action," "without any motor result." "Before the application of chloroform, the tubercles in this frog and the inner surface of the forearm were found to be intensely excitor. These trials proved, that in the living frog, under chloroform, the spinal reflex function remains in complete abeyance. Even the respiratory movements ceased entirely. On being removed from the chloroform vapour, the animal recovered, notwithstanding the cessation of the respiratory movements for a considerable time."

4. A frog was destroyed by the influence of chloroform. "The head was now removed, and a fine needle passed through the medulla oblongata. No movements whatever of the eyelids occurred."

"The needle was now passed down the spinal canal; no movements whatever of the forearms took place, nor did any movements occur until the needle had reached the origins of the nerves at the bottom of the canal, when slight movements of the extremities were observed."

"A large motor nerve being dissected out was pinched without causing the slightest movement of the limb to which it was distributed."

(b) The experiments of Professor Simpson.

I am not aware that these experiments have been published; yet, as they have been publicly referred to, I hope I am committing no error in giving the following, which was communicated to me from unquestionable authority:—

"The lower half of the spinal cord of a sow was entirely removed, and three days after the operation the labour began and was accomplished, without any appreciable difference from that of an ordinary labour in the same animal." Dr. Tilt informs me, that during a recent visit to Edinburgh, Dr. Simpson showed him a preparation of the spinal canal of a sow, from which half of the cord had been withdrawn three days prior to parturition.

(B) CASES OF PARTURITION UNDER THE INFLUENCE OF ANÆSTHETIC AGENTS.

I might quote my own observations upon this subject, yet, lest they should have been influenced in any way by preconceived ideas, derived from the anatomy of the organ, I prefer to give the testimony of independent observers.

(a) Professor Simpson writes ("Notes on the Inhalation of Sulphuric Ether," p. 8):—"In obstetric, as in surgical practice, the degree of insensibility produced by etherization, and its accompanying phenomena, differ much in different instances. In some a state of total apathy and insensibility seems to be produced; others move about, and complain more or less loudly during the uterine contractions, although afterwards, when restored to a state of common consciousness, they have no recollection of any suffering whatever, or, indeed, of anything that had occurred during the inhalation and action of the ether; others, again, remain quite quiet, and conscious of what is going on around them, and watch the recurrence of the uterine contractions, but feel indifferent to their effects, and not in any degree distressed by their presence; and, in another class, the attendant suffering is merely more or less diminished and obtunded, without being perfectly cancelled and annulled. Yet, in all of them, the uterine contractions continued as regular in their recurrence and duration as before the inhalation had begun."

(b) Professor Dubois observes (the *Lancet*, 1847): "I must here subjoin a fact I have commonly observed throughout my researches on the action of ether in those special cases; it is the extreme apparent laxity induced in the muscular layers of the perinæum. With primiparæ, even dilatation of these parts has been so rapid, that in those cases where parturition took place during the state of insensibility,—the duration of which never exceeded fifteen minutes,—the expulsion of the child has been painless; and we must note as worthy of notice, that one of these women bore a child weighing eight pounds, and that in her case the perinæum was not damaged in the slightest degree. I must also make the important remark, that, after delivery, the uterus

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in all cases has constantly and immediately resumed the firm contracted state of its retracted parieties."

(c) The conclusion which Professor Murphy arrives at ("Chloroform in the Practice of Midwifery," 1848, p. 19) are:—

1st. It does not interfere with the action of the uterus, unless it be given in very large doses, which is never necessary.

2ndly. It causes a greater relaxation in the passages and perinæum; the mucous secretion of the vagina is also increased.

3rdly. It subdues the nervous irritation caused by severe pain, and restores nervous energy.

4thly. It secures the patient perfect repose for some hours after her delivery. These three last effects consequently render an operation much easier to perform, and the recovery of the patient afterwards much more favourable.

5thly. The order of its effects upon the vital functions seems to be, loss of sensation, partial loss of voluntary motion, loss of consciousness, complete loss of voluntary motion, stertorous respiration, loss of involuntary motion, cessation of the action of the uterus, of respiration, of the action of the heart.

6thly. Its injurious effects, when an ordinary dose is given, seem to depend on constitutional peculiarities or on improper management. Much excitement about the patient may render her violent. Catalepsy has occurred in some; chlonic contractions in others. Some patients are slow in recovering from the effects of a large dose; they remain giddy during the day, and sometimes faint when they stand upright.

(d) To these descriptions I have only to add, from my own observations, that in every case I have seen, where the full effect of ether or chloroform was induced, the reflex phenomena of the spinal cord could not be excited. The woman was tickled, pinched, and pricked without the least effect; nor was tickling the eyeball or eyelids with a feather followed by any movement whatever.

It has been objected to these observations, that they do not show the reflex action of the cord to be in abeyance, because respiration still goes on, and this is a purely reflex act. The observations certainly show that the reflex action of the spinal cord upon the parts which were irritated was in abeyance, and hence we may assume, but of course it is only an assumption, that the reflex action of other parts is also in abeyance. Nor is this assumption in any way invalidated by the appeal to respiration. That function continuing but shows that the conditions necessary for the performance of it depend upon other causes than the reflex action of the spinal cord; and that it is not, as has been so loudly stated, a purely reflex phenomenon, depending upon the spinal cord for its continuance. That so important a function as respiration should depend upon the integrity of any single organ, is contrary to everything that we meet with in the animal economy; and that it should depend, for the conditions necessary for its performance, upon other functions than the reflex function of the spinal cord, is but associating it with the other important functions of the body. This view is fully borne out by the experiments of Dr. Tyler Smith, already quoted.

On reviewing, then, the evidence in favour of the opinion, that the contractions of the uterus are independent of the cerebro-spinal system, we have

1. The experiments which show

(a) That the action of chloroform places the reflex actions of the spinal cord in complete abeyance.

(b) That, in spite of this, respiration continues, as well as the action of the heart, intestines, and uterus.

(c) That the actions of the heart, intestines, and uterus continue when the "spinal marrow has been broken down entirely."

(d) That the contractions of the uterus can begin, continue, and effect the expulsion of the young, without any apparent alteration from health, after the lower half of the spinal cord has been entirely removed.

2. The cases of anæsthesia show—

(a) That the reflex actions of the spinal cord are in complete abeyance.

(b) That the contractions of the uterus continue uninfluenced by the action of the anæsthetic agents; hence,

(c) That these contractions are independent of the reflex action of the spinal cord.

3. The experiments and cases together show,

(a) That the contractions of the uterus begin, continue, and effect the completion of parturition, totally independent of the action of the spinal cord.

9 A, Langham-place.

[To be continued.]

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	April 26.—	Medical Society of London. *Subject*:—Dr. O. Ward, "On Venous Murmurs." Eight o'Clock.
		Royal Botanic Society. Quarter to Four o'Clock.
Monday,	April 28.—	Geographical Society. Half-past Eight o'Clock.
Tuesday,	April 29.—	Zoological Society. *Anniversary*. One o'Clock.
Wednesday,	April 30.—	Geological Society. Half past Eight o'Clock.
Thursday,	May 1.—	Royal Society. Half past Eight o'Clock.
		Royal Institution. *Anniversary*.
		Horticultural Society. *Anniversary*. One o'Clock.
		Zoological Society. Three o'Clock.
		Harveian Society. Eight o'Clock.
Friday,	May 2.—	Royal Institution. *Subject*:—The Astronomer Royal, "On the Total Eclipse of the Sun on July 28, 1851." Nine o'Clock
		Western Medical and Surgical Society. Eight o'Clock.
		Botanical Society of London. Eight o'Clock.
Saturday,	May 3.—	Medical Society of London. *Subject*:—Dr. Routh, "On Some of the Fallacies of the Modern Practice of Medicine, more especially Homœopathy, and in estimating the Results of Treatment by Imperfect Statistical Inquiry." Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, APRIL 26.

SMALL-POX IN HINDOSTAN.

From a period long anterior to the British rule in India, the practice of inoculating for the small-pox had been common in all classes of the native inhabitants, Hindoo and Mahometan, and at the commencement of the present century was very widely diffused. In 1803, vaccination was introduced into India; and from that time to this the most unceasing efforts have been made in each presidency to instil into the minds of the native population the superior advantages of vaccination, and to withdraw them from the practice of inoculation. These efforts have been more successful in Madras and Bombay than in Bengal, to which our attention is now specially directed. Forty-seven years have elapsed, and we find the population of Bengal still clinging fondly to inoculation, and, so far as we can judge from the report before us, less and less disposed each year to adopt vaccination. The subject is one of great importance in a national point of view; and we shall first attempt to ascertain to what extent variolous inoculation is actually practised in Bengal, and with what results.

It is no easy matter to arrive at the truth on these points. The Commissioners, from whose Report we quote, have declared war to the knife against inoculation. They accuse it of having largely contributed to swell the mortality during the last outbreak; and, though disposed to admit that the immunity afforded by it is "probably equal to that of vaccination," yet they hear with apparent reluctance anything said in its favour. We shall try to get at the truth. The Report would induce the belief, that about 70 per cent. of the population of Bengal are inoculated. This estimate is scarcely compatible with the enormous amount of small-

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pox adverted to in a former number, and with the acknowledged carelessness, apathy, and prejudice prevalent in the native population. In 1830, Dr. Cameron estimated the number of professed *Ticcadars* or inoculators practising in Calcutta at 15. In 1844, Dr. Stewart estimated them at 30. At the present time their number is 68, of whom 42 are permanent inhabitants of Calcutta, and the remainder visiters from the north-western districts. The actual practice of inoculation is confined to the three cold months, January, February, and March. Each Ticcadar inoculates on an average seventy or eighty persons in the season. This would give 4000 as the number actually inoculated each year in Calcutta; whereas the annual births cannot be less than 15,000. The statements of some of the chief inoculators are very creditable to them, and might, we think, have disarmed some portion of the Commissioners' wrath. They operate upon all the unprotected children of the family *at once*. They could inoculate at other seasons of the year, but they refrain from doing so, fearing that the disease might then prove serious, or even dangerous. They often inoculate poor people without remuneration. In seasons of epidemic visitation, the mortality by inoculated small-pox is increased. The patient remains confined from ten to fourteen days. Eighteen days are required to effect an entire cure. It very rarely happens that the operation fails to take effect. One of the Ticcadars who was examined reported sixty cases in the last season, and all successful.

Connected with the operation of inoculation is the Poojah or worship of the Goddess Situla Dabee, the patroness of small-pox, (corresponding to the Saint Nicase of the dark ages of Europe.) Hymns are to be sung to Situla daily during the course of the disease, whether taken casually or by inoculation, and offerings and alms are to be presented. All this is necessary "*for the alleviation of the pain of small-pox.*" By thus propitiating the goddess, the patient will obtain a cure; but the learned Pundits find it also written in the books Bhab Prokash, &c., that, besides all this, it is necessary that "*the patient should be kept in a pure, pleasant, secluded, and cool place.*" We call this good advice, well worth the seven rupees which are paid to the priest. The inoculator receives about one-half that sum for each job, averaging three children.

The Commissioners, as we have hinted, give no quarter to this practice. They call it a murderous trade. They insist that no good can be done in India till it be abolished and rendered penal. They give no ear to the clear, and, in our humble opinion, most convincing arguments of Mr. George, apothecary to the Park-street Dispensary, who urges:—1. That the poor Ticcadars could not be justly charged with *originating* the complaint, seeing that the epidemic was in full activity in November and December, and that their labours do not begin till the middle of January. 2. That they had as little to do with the diffusing and maintaining the disease, which was attributable partly to some unknown atmospheric cause, and partly to the densely crowded and ill-ventilated condition of that part of the town where the natives reside. Mr. George adds, that the majority of the cases that came under his observation had not been inoculated; at least, none of those lately brought to the Dispensary for sloughing corneæ, suppuration of the joints, and other distressing sequelæ. We shall have occasion to revert hereafter to other valuable hints from the same quarter.

The names of many Hindoo families are given who patronize vaccination; but the concurrent testimony of the majority of those whose correspondence forms the Appendix to the Report before us, shows distinctly that public opinion is everywhere strongly in favour of inoculation and against vaccination. We must quote some of these opinions. Baboo Rhadhanauth says:—"Barring a few Hindoo gentlemen, who are in intimate contact with Europeans, and who know the advantages of vaccination, and encourage it partially, all the others of the native community are in favour of inoculation." Baboo Prosono Mitter says:—"I know several respectable Hindoo families, as well as Mahometans, who adopt vaccination. Some, I know, doubt very much its efficacy to secure the system completely from the casual inroads of small-pox, especially when epidemic and virulent, and *therefore adhere to the old practice of inoculation.* Many prefer it, owing to a strong superstitious belief in the power of Situla, which subsists in spite of the rapid advance of education and enlightenment among the inhabitants of Calcutta. To attempt to enumerate them would be useless. Their name is Legion." Baboo Ramchunder Mullick says:—"The great majority of the Hindoo community, particularly the most orthodox portion of it, strictly adhere to the practice of inoculation. The Hindoo women, in particular, are staunch advocates of inoculation, and cry down vaccination as a mere mockery. *The necessity of its repetition is, in their opinion, sufficient proof of its incapability of producing in the human frame the wished-for effect.*"

Religious prejudices and ignorance may have something to do with the bad odour into which vaccination has fallen at Calcutta, but no one can read the mass of correspondence, of which the above is a sample, without feeling that the argument is not all on the Commissioners' side. It certainly is strange that, attributing so much as they justly do to *epidemic influence*, as the chief promoter of small-pox, and so much also to "the miserable, small, filthy, ill-ventilated and crowded buildings of the native town," they should have put inoculation into so prominent a position among the exciting causes of the great mortality. Dr. Wilson states, that he has not been able to trace the origin of any extensive or fatal epidemic to this practice. Yet at Banlesh, from whence he dates his letter, 970 persons had been inoculated, and only 78 vaccinated.

The Commissioners are staunch supporters of the theory of identity. In one place they call cow-pox a *cognate* disease, but in page 55 we learn that "it is proved beyond all denial, by the most orthodox interpreters of Hindoo law and theology, that cow small-pox and human small-pox are *identically the same*, and that Situla ought to be worshipped with equal veneration, faith, and purity, by those who are vaccinated and those who are inoculated." This opinion of the learned Pundits will doubtless have its due weight in this country and in Ireland, but it seems to us inconsistent in the Commissioners to uphold it; for, in page 41, vaccination is prominently brought forward as the *antidote* of small-pox; and it is rather hard that Situla should be expected to encourage equally both bane and antidote. Teetotallers do not sing songs in praise of Bacchus; Quakers are not found to indite martial lyrics. It is quite obvious that this piece of theory has made no great impression, for we do not read of a single vaccinated native who has given an *anna* to Situla; and as the operation is neither attended with *pain* nor *danger*, we really do not see on what principle Situla could claim one.

We shall conclude this article by a brief abstract of the character of the cases, which occurred among the patients admitted into the General Hospital Calcutta, between December, 1849, and April, 1850, inclusive. Total cases

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admitted, 76; total deaths, 20. Of the 76 admitted, 66 had been vaccinated; 10 not vaccinated. Of the 66 vaccinated cases, 41 had good cicatrices, and 25 had cicatrices not so well marked. Of the total cases, (76 in number,) 30 were severe and confluent; 46 mild or modified. Of the 10 unprotected cases, 5 were severe and confluent, (of whom 4 died,) and 5 were mild. Of the remaining 25 confluent cases, after vaccination, 12 had good cicatrices, and 13 cicatrices not well marked. 16 of those who had been vaccinated in early life died, of whom half bore good scars, and half had scars not well marked. 65 of the number were males, 11 females; 8 were children aged five years or under, of whom one died. Six of these children had been vaccinated.

The mortality here stated as occurring after vaccination, (16 out of 66, or 24 per cent.,) is the highest upon record in any country, and must be attributed either to some unusual malignity in the epidemic, or to the peculiar climate of Calcutta. These incidents, as we shall see hereafter, have become widely known in Hindostan, and have contributed largely to unhinge the minds of the native population.

In our concluding article, we shall enumerate and offer some criticisms on the remedial measures recommended by the Commissioners to the consideration of the Indian Government.

MEDICAL OFFICERS OF HEALTH.

We commented, a few weeks since, on the proposed appointment of medical officers of health, and endeavoured to show, at some length, the benefits and disadvantages of the contemplated plan. Approving generally of the measure, which we believed would, in the end, prove highly advantageous to the interests of the Profession, as well as conducive to the sanitary well being of the public, we nevertheless pointed out certain defects in the details of the scheme which threatened to mar its efficiency, and to stand in the way of its general acceptance by the Profession. We hope that the advice we then tendered will receive consideration in the proper quarter, and lead to the necessary amendments.

In further illustration of the views we then unfolded, we intend, on this occasion, to point out the qualifications and duties of a medical officer of health; and our readers will readily see, that any gentleman possessing the varied knowledge demanded by the Board, and performing the responsible duties prescribed, would be entitled to a very liberal salary, and should be made independent, in that respect, of the parsimony, ignorance, and jealousies of a local Board.

As to qualification, the "officers of health (say the Board) ought to be specially informed in relation to the mechanical means of ventilation, water supply, drainage, and cleansing, and generally on the topics comprehended in the most approved works of medical jurisprudence, and competent to conduct chemical analyses of articles of food, water, and similar agents, the condition of which often influences materially the health of the district."

Besides the foregoing qualifications, which are sufficiently varied, the officer of health must have a thorough knowledge of medicine, and especially of pathology; as, in cases of persons dying without any regular medical attendance, he will be required "to *examine into* and determine, as closely as he may, the *cause* as well as the fact of the death." Although this clause does not expressly provide for a *post-mortem* examination, yet the language is strong enough to convey such a construction. It is our own opinion, at any rate, that the medical officer of health should be required to superintend or conduct autopsies with a view to aid the coroner in his investigations; for there can be no doubt, that an officer legally invested with such a duty is absolutely necessary to the efficiency of any sanitary code. Such is clearly also the opinion of the Board; and being so, we are entitled to demand for the medical officer an honourable remuneration suited to his high professional acquirements, and the importance of his public duties, with the guarantee of justice and stability which a national fund would afford.

The duties of a medical officer of health will require from the candidate a special training, as in themselves they almost constitute the elements of a new Profession. There are few men to be found at the present time competent to discharge these diversified responsibilities; and we think that we are quite safe in asserting that not one member of the Board of Health itself would be qualified to undergo an examination in the several branches of study which they require from candidates for the new offices. If the remuneration be left with local boards, we shall soon see medical officers of health advertised for on similar terms to those stipulated in engagements for unfortunate governesses, who are expected to teach French, German, and Italian, the rudiments of Latin, music, dancing, and practical geometry, for five pounds a quarter.

We are persuaded, however, that the Board of Health desire to establish these new officers on a better footing, for they contemplate making them independent of private practice, and in that event the office must be made good enough to support the incumbent.

The Board have published in their circular a long list of not less than thirty specific duties, which the officer of health will be required to perform. We have only space briefly to designate them. This functionary will be expected to obtain the earliest information of the advent of epidemic disease, and visit the spot. He will be empowered to take the necessary steps for the removal of the causes of disease, — such as cleansing the apartments in which death may have occurred, and the removal of the corpse. He must make a house-to-house visitation, visit schools, workshops, factories, ascertain the peculiar causes of pulmonary diseases, as well as of epidemics, secure the vaccination of children, recommend appropriate means for the prevention of noxious smells and emanations arising from common nuisances or from trades, attend the meetings of Local Boards of Health, and, in fine, report regularly and incidentally on all he sees, says, or does. This will be no sinecure. An efficient officer will be worked hard, and must bring into play the nicest qualities of the mind,—judgment, discretion, forethought, and a firmness tempered with suavity, which shall insist and not offend,—a combination of attributes not always to be found, and, when found, to be well rewarded.

We must not, however, find fault with a proposition to organise a new system of preventive medicine. The Board are now attempting what we have long desired to see commenced; and if the plan shall be fully carried out, it will be not only worthy of the foresight and Christian benevolence of our rulers, but will also mark to the world the vast importance of scientific medicine to the best interests of the country, and will not fail, eventually, to exalt our Profession in the estimation and respect of the public.

We call the attention of our readers to the announcement on our cover, that the subscription list to the Conolly testimonial will shortly close. Dr. Conolly merits from the Profession a great acknowledgment for the reforms he has carried out in the treatment of the insane.

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REVIEWS.

On the Threatenings of Apoplexy and Paralysis; Inorganic Epilepsy; Spinal Syncope; Hidden Seizures; the Resultant Mania, &c.; being the Croonian Lectures, delivered at the Royal College of Physicians in March, 1851. By MARSHALL HALL, M.D., F.R.S., &c., &c. 8vo. Pp. 90. London.

Of the Causes, Nature, and Treatment of Palsy and Apoplexy; of the Forms, Seats, Complications, and Morbid Relations of Paralytic and Apoplectic Diseases. By JAMES COPLAND, M.D., F.R.S., &c. Pp. 414. London. 1850.

At the outset of his first lecture, Dr. Marshall Hall quotes some passages from Abercrombie, to show that there are modifications of apoplexy and paralysis depending on a cause of a temporary nature, both the apoplexy and the paralysis being capable of ceasing as speedily as they were induced, or of proving fatal without any morbid appearance being discoverable in the brain. "These," says Dr. M. Hall, "are the important subjects of the present lectures."

"Why," asks Abercrombie, "is not apoplexy produced by every increase in the mass of the blood, and why is it not excited by every instance of intemperance, violent exercise, or strong mental emotion? Is there any provision by which the effects of these causes are averted in their daily occurrence, though in a certain condition of the system, each of them may be capable of producing perfect apoplexy?" "It is to this great question," says Dr. M. Hall, "hitherto left unresolved, that I hope to present the answer."

The idea of tendency of blood to the head Dr. Hall regards as a fiction and a chimera. Whatever, he affirms, the violence of the arterial circulation, there is no danger, so long as no impediment to the return of blood exists: *the blood may be impeded, in its return from the head, by a spasmodic action of the muscles of the neck on the veins of that region.* The spasmodic action of the muscles of the neck, by which the free return of the blood through the veins of the neck is prevented, Dr. Hall terms TRACHELISMUS; the effect produced by that spasmodic action on the veins themselves, he calls PHLEBISMUS.

The *first* characteristic of the class of diseases here treated of, is their paroxysmal form; their chief causes, mental emotion and gastric irritation. The recovery is at first complete; but repeated seizures have, as their result, permanent damage to the cerebrum, and, as a consequence of that damage, trifling paralysis, or slight impairment of the mental faculties.

The *second* most characteristic feature of these diseases is lividity of the countenance, either with flushing or pallor of the face and neck. Increased flow of arterial blood, as in violent exercises, induces florid flushing; impeded return of venous blood, as observed in those lifting heavy weights, induces a livid flush; it is the latter hue which is observed in the apoplectic and epileptic seizures.

Anger and gastric irritation may induce a livid flush, capable of passing into the apoplectic seizure. How do emotion, gastric irritation, &c., act in inducing venous turgescence of the face and neck?

"It is the reply," continues Dr. Hall, "to this question which presents the *key* to all the difficulties in regard to the nature, source, and origin of paroxysmal apoplexy, paralysis, epilepsy, &c."

"*Trachelismus* intervenes, I believe, between the cause and its dire effects; *i. e.*, emotion or gastric irritation may excite spasmodic action of the muscles of the neck by pressure on the veins of that region, impeded return of the blood from the head, and, as a consequence of the latter, a fit, more or less perfect, of apoplexy; the trachelismus ceases, *i. e.*, the spasm relaxes; the phlebismus vanishes, *i. e.*, the blood again resumes its onward course; and, as a consequence, the brain is relieved, and the patient recovers."

It is a fact, that emotion, say anger, may induce a sense of choking and an intensely livid flush; it is a fact, that ere that flush has gone, an apoplectic fit may ensue; it is a fact, that such a fit may be transient—that it may be paroxysmal. Dr. Marshall Hall classes these facts, and offers to us *trachelismus* as the connecting link between the emotion and the flush—between the flush and the fit—between the loss of consciousness, sensibility, and motility, and the restoration of those functions. "In sleep," says Dr. Hall, "there is slight trachelismus; hence the turgescence of the countenance, the injected conjunctivæ, and the subapoplectic state of the cerebrum; and hence the frequency of epileptic and apoplectic seizures during sleep."

Several experiments are adduced by Dr. Hall, as confirming his position. The most interesting and instructive is the following:—

A girl in University College Hospital, aged 19 years, suffering from aphonia, had galvanism applied to the larynx. Mr. J. W. Reynolds, of Leeds, then physician's assistant in the hospital, and whose duty it was to apply the galvanism, reported to Dr. Hall, that he observed, when the electro-magnetic machine employed was turned slowly, and the *superficial* muscles were alternately contracted and relaxed, that the colour of the face only was heightened; but when the muscles were maintained in a state of almost permanent contraction, that the face became of a deeper colour, the lips and angles of the mouth livid, the eyes suffused, and some feelings of confusion of thought, headache, and dimness of sight, alternating with flashes of light, were induced.

In this case there was a demonstration, Dr. Hall adds, of the nature both of trachelismus and of phlebismus, and of their effects.

Instead of flushing, pallor with or without sickness, is sometimes observed in cases of seizure.

Pallor alone may be produced by a syncopic impression directly on the heart itself; conjoined with sickness Dr. Hall says, it must be induced by a cause seated in the medulla oblongata. That cause may be "irregularity of circulation in the medulla oblongata," the immediate effect of trachelismus on the vertebral veins. "It is a case to be most carefully distinguished from ordinary syncope from sources of exhaustion, disease of the heart, &c.; and I propose," says Dr. Hall, "to characterise it by the term 'spinal syncope.'"

Speaking of congestion and softening of the brain, Dr. Marshall Hall says:—

"If the congestion (the result of the trachelismus) be extreme and greater in one hemisphere than the other, hemiplegic paralysis is observed. If the cerebral affection be limited to congestion, and if this congestion disappear, the paralysis disappears too. It is paroxysmal and transitory. But if this congestion leads to ecchymosis, this cannot subside; softening is the result, and with this a greater or less degree of permanent hemiplegia. Or there may be effusion of serum into the ventricles, and its consequences loss of memory, &c. If with the paralysis there be spasm, the medulla oblongata is irritated."

With reference to the treatment of paroxysmal nervous affections, Dr. Marshall Hall remarks:—

"The nausea and sickness induced by a mild emetic would probably dissolve the spasm on the muscles of the neck, and so remove the congestion of the encephalon; while an emetic would be a very dubious measure in the case of a violent attack of organic apoplexy or paralysis."

The great objects in the treatment of paroxysmal nervous affections are, to regulate all the functions and to restore the tone of the system. Dr. Marshall Hall hints, as a probable truth, the possession by strychnia of a tonic power on the spinal nervous centre. The first constant link in the chain of causes and effects being either a direct or reflex action on the spinal centre, whereby spasmodic action of the muscles of the neck is excited; whatever gives to the spinal centre tone or power of resistance to slight stimulants will, of course, prevent the occurrence of the spasmodic contraction of the muscles of the neck, and necessarily of all the dire effects of that spasm.

In blushing, in the bloodshot eye, and in epistaxis, we have the effects of impeded return of blood along the external jugulars; in apoplectic symptoms we have evidence of impeded return of blood along the internal jugulars; in epileptoid symptoms we have the same evidence in regard to the *vertebral veins*.

The basis of all scientific medicine is the diagnosis. The great question in regard to the diagnosis of apoplectic and paralytic seizures, is that of their inorganic or organic character.

That which arises from irritation or emotion is primarily inorganic; that which arises from disease within the encephalon is organic. The first may be hidden; the normal trachelismus of sleep and its consequent phlebismus, become abnormal; an apoplectic paroxysm is the result; but as it commences during sleep and terminates before the subject awakes, he is unconscious of its occurrence

These hidden seizures Dr. Marshall Hall thinks precede and are the cause of many serious cerebral symptoms.

Cerebral seizure, Dr. Hall says, may be divided into
1st. Paroxysmal; and
2nd. Organic.
And each of these may be subdivided into
1st. Apoplectic; and
2nd. Paralytic;
While each of these may present itself in the form of
1st. The slightest threatening; or
2nd. The severest seizure.

In paroxysmal apoplexy ecchymosis, rupture, and compression may follow as a result of the congestion due to trachelismus and phlebismus; in organic, the primary affections are rupture and compression.

"In the treatment of the apoplectic and paralytic attacks, the great questions relate to the administration of bloodletting and emetics."

In paroxysmal apoplexy the treatment must be energetic. Blood should be promptly taken away, and sickness and vomiting induced.

"In slight and repeated attacks, an antacid aperient draught may, properly repeated, be all that is immediately required. If it be severer, an emetic with an antacid should be first given, and then an antacid aperient. If more severe still, bloodletting must be premised, the head raised, cold applied to the vertex, sinapisms behind the ears and to the nucha, fomentations to the feet, and an enema administered."

Afterwards, Dr. Hall recommends the following:—

"℞. Hyd. chlor. gr. 1-10th; pil. hydrarg. gr. iiss.; pulv. scillæ, pulv. ipecac. aa. gr. ss. M. ft. pil. ter die. S."

"In organic apoplexy or paralysis it may be," continues Dr. Hall, "a question whether we should take blood," while the administration of emetics is to be avoided.

In epilepsy, as in paroxysmal apoplexy, there is trachelismus. If the muscles affected with spasm be those which compress the jugulars, the case is apoplexy; if those which compress the vertebrals and close the larynx, it is epilepsy. Emetics administered when an attack is imminent, or when, without premonitory symptoms we may be anticipating attacks, are generally, Dr. Hall thinks of use. Another remedy of great moment is a large dose of an antacid, as twenty or thirty grains of bicarbonate of potash. In addition to a rigid system of mental discipline, of diet, exercise, &c., Dr. Hall thinks great benefit may be derived from the use of strychnia; the formula and dose he recommends the following:—

℞. Strychniæ acetatis, gr. i.; acidi acetosi, ♏ xx.; alcoholis, f. ʒij.; aquæ distillatæ, f. ʒvj. Misce.

Ten drops of this solution to be given three times a day.

Mania.—"In paroxysmal mania I am persuaded," Dr. Hall says, "that there is the same pathology as in trachelismus, and the same hope of successful treatment from emetics, antacids, and mild mercurial alteratives."

In conclusion, Dr. Hall sums up the causes, symptoms, and pathological lesions of paroxysmal cerebral and spinal seizures, and expresses his conviction, founded on observations made on the subjects of epilepsy and paroxysmal apoplexy, on experiments, and on *à priori* reasonings on the known functions and actions of the parts concerned, that all the visible phenomena, all the patent facts, may be clearly explained by trachelismus and its consequence phlebismus; and that in this is the key to all the difficulties of the complex and mysterious subject of paroxysmal seizures.

After this analysis we need not say that the Croonian lectures were at once worthy of their author and of their audience.

Believing that palsy and apoplexy should be studied in intimate connexion, not only with each other, but also with those diseases of which they are often the consequences and terminations, and with affections which are frequently associated or complicated with them, Dr. Copland has collected into the volume before us several of the articles on these subjects previously published in his Dictionary, and has imbodied with them the Croonian Lecture for 1846 and 1847.

The first section of the work is divided into five chapters; the first chapter treats of Paralysis of Sensation; the second of Paralysis, chiefly of motion; the third of the Palsy of new-born Infants and Children; the fourth of Shaking Palsy,—Paralysis Agitans; and the fifth of Palsy caused by mineral poisons. Dr. Copland states that, in the cases he has seen in which there has been loss of sensation only of one side of the body, the temperature of the same side has been diminished; while in hemiplegia, with loss of motion only, the temperature has been somewhat higher than in the opposite or non-paralysed side.

Our readers may remember Dr. J. Reid's experiments, by which he appeared to prove that the wasting of paralysed muscles was due simply to want of exercise. Dr. Copland relates a case that he attended, in which there was hemiplegic anæsthesia only, the movements and exercise of the two sides being nearly equal, yet *wasting* and loss of temperature of the affected side were prominent symptoms. Paraplegic anæsthesia, Dr. Copland contends, is attributable chiefly to the organic or ganglial nerves supplying or connected with the paralysed limbs, and not to the state of the spinal chord or encephalon. This form of paralysis may have its origin in the prolonged or severe operation of cold; and to it Dr. Copland refers Dr. Graves' case, in which the loss of sensation commenced in the great toe, and extended upwards along the leg and thigh, and subsequently commencing in the little finger, gradually extended to the other fingers. Dr. Copland ranks himself with those who deny that pathological anatomy affords any countenance to the assertion that the posterior columns of the spinal chord are the appropriate channels for the transmission of sensation.

Chapter II. treats of Paralysis of Motion. Speaking of ptosis, Dr. Copland points out the necessity of distinguishing dropping of the eyelid due to paralysis of the levator palpebræ, from closing of the eye, the consequence of spasmodic action of the orbicularis palpebrarum. In the latter the seventh, in the former the third pair of nerves is affected.

When the portio dura only is paralysed, says Dr. Copland, as long as the patient neither speaks nor smiles, the countenance presents nothing remarkable; but when laughing, crying, &c., the distortion of the countenance is apparent. The mouth is then drawn to the sound side. Paralysis of the tongue, and of the muscles of articulation, is usually succeeded by general palsy, or by apoplexy. Loss of power of articulation is a much more serious affection than aphonia.

Dr. Copland remarks that the tongue, even in cases of hemiplegia, is not always drawn towards the sound side; sometimes it is drawn towards the sound side.

Hemiplegia ordinarily proceeds from organic lesion of the encephalon; but there is a slight or temporary form of hemiplegia sudden in accession, much benefitted in the course of a day or two, and removed in a day or two more. Dr. Copland infers from these facts, that this form of hemiplegia depends on interrupted circulation through some part of the brain. Hemiplegia is very rarely the consequence of disease of the upper part of the spinal marrow. When pain or spasm occurs in the paralysed limb, Dr. Copland thinks that the existence of an inflammatory state of some portion of the brain or its membranes may be inferred to exist. Hemiplegia is very rarely occasioned by hysteria, while hysteric paraplegia is not very infrequent.

The involuntary movement produced, independently of sensation, when the soles of the feet are tickled in paraplegia, "*can*," Dr. Copland thinks, "arise solely from the effect produced upon the sensory nerves, whether these be ganglial or spinal, although perception does not take place." Paraplegia from severe external injury, is in a few days followed, in a majority of cases, by alkaline urine; this character follows on the loss of contractile power of the bladder, and is, in some cases at least, due to the accompanying cystitis.

In paraplegia, Dr. Copland states that the temperature of the paralysed parts is generally above the standard. This increase of temperature is, he adds, due to the unperspiring state of the surface of the sound parts, and is especially to be observed in cases in which the loss of power is due to external injury.

General palsy Dr. Copland defines to be, more or less loss of motion in all the limbs and trunk; it may be cerebral, and is then due to extensive hæmorrhage; or it may be spinal, and may then arise, either suddenly, from concussion, from disease or dislocation of a vertebra, or from hæmorrhage into the vertebral canal; or gradually, and is then simply an extension upwards of paraplegia. Inflammation of its membranes, or softening of the chord itself, is often found in such cases.

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Infantile paralysis is divided by Dr. Copland as follows :—

1st. The congenital, commonly a sequence of arrested development or congestion of a portion of the cerebro-spinal centres.

2nd. That caused by the accidents attending parturition.

3rd. That consequent on lesions of a demonstrable nature, implicating some portion of the cerebro-spinal axis; and

4th. That which presents no obvious lesion in the brain and spinal chord, beyond slight congestion. The last class generally affects infants at the breast, or during the first dentition.

Shaking palsy is characterized by a tremulous agitation—a continued shaking, and weakness of one or more parts or members of the body. The actual muscular power is not necessarily impaired, Dr. Copland says, although the involuntary motions are considerable. It commences gradually, is at first limited in extent, sometimes, however, ultimately becomes general; often it continues for years. The patient in walking, from being thrown on the fore-part of his feet, is often obliged to adopt a running pace to avoid falling on his face. Ultimately the powers of mastication and even of deglutition may be lost. The seat of this affection is supposed to be the medulla oblongata.

In the second section of his work, Dr. Copland treats of Primary and Simple Apoplexy.

He divides the disease thus :—

1st. The sudden form of apoplectic seizure, unassociated with paralysis.

2nd. The gradually increasing or ingravescent attack.

The states of seizure complicated with paralysis, and that form of apoplexy which commences with paralysis, are described as associations of apoplexy and palsy.

Simple apoplexy may terminate in rapid recovery, or in early death; the fatal termination, however, rarely occurs in less than an hour.

After death, there may be found :—

1st. Little or no alteration of the encephalon or membranes.

2nd. Intense injection of the vessels of the brain and membranes.

3rd. An effusion of serum.

4th. Extensive extravasation of blood.

Ingravescent apoplexy commences with sudden headache, paleness, sickness, and vomiting; there is often sense of faintness, and occasionally a slight convulsion; then the symptoms subside in severity—not disappear—and after a short time, however, the face flushes, oppression increases, and at last the patient becomes comatous. From an hour to three days may intervene between the first sudden pain and the establishment of the stage of coma. This is the most fatal form of apoplexy. *After death* extravasation of blood is always found. In some cases the blood appears to be infiltrated into a portion of softened cerebral substance.

In the third section, Dr. Copland describes apoplexy associated with palsy.

This form may occur as perfect apoplexy, but one side is found completely paralysed, contracted, or convulsed. In other cases the seizure is less completely apoplectic. In either form the paralysis may disappear with the apoplectic symptoms, or become more marked as they subside.

After death :—

1st. No lesion may be discovered.

2nd. Serous effusion, more or less abundant, is sometimes found.

3rd. Congestion may be the only morbid appearance.

4th. Extravasation of blood is the most frequent lesion met with in such cases.

5th. The extravasated blood may be found to have undergone various changes in appearance, according to the date after the seizure at which death has occurred.

6th. Changes in the cerebral substance; *e.g.*, softening and induration may be found around the clot.

Local congestion, sufficient to cause a temporary abolition of its power, may, Dr. Copland says, arise from "deficient vital energy of the part."

Instead of commencing at the moment of the apoplectic seizure, paralysis may precede it. In these cases, Dr. Copland says that the most common lesion found after death, is softening, with a reddish tint, of a portion of the brain, or with infiltration of the blood into the cerebral substance. The primary cause of the softening Dr. Copland places in the ganglial system which supplies the encephalon, particularly its blood-vessels.

Whether apoplexy be simple or associated, Dr. Copland states :—

The *pulse* may be strong and slow, or small and feeble. When the pulse is slow, the breathing is also deep and slow; and when the pulse is weak and frequent, respiration is quick. The pupils may be large or small, equal or unequal.

Section 4 treats of several diseases often preceding, inducing, and complicating apoplexy and palsy. The most important of these, Dr. Copland thinks, is determination of blood to the head, or repeated active or passive congestion within the cranium; active determination Dr. Copland regards as produced by excited organic nervous influence; passive congestion may be the result of the exhaustion of this influence, or of mechanical impediment to the free return of blood from the head. Inflammation of the brain or its membranes, Dr. Copland states, often precedes or induces apoplexy and palsy. Apoplexy or palsy supervening in the course of kidney disease, is, according to Dr. Copland, the consequence of vascular and organic lesions supervening in the progress of such malady.

Softening of the brain is, our author says, in a large proportion of cases, inflammatory.

The following are the symptoms of both varieties :—

Non-inflammatory softening, 1st. period :—	Inflammatory softening, 1st period :—
Cephalalgia	Acute pain in the head
Vertigo	Answers abrupt
Enfeebled mental powers	Delirium
Drowsiness	Increased sensibility of the limbs
Diminished sensibiltty	Pain, contraction, and cramps of the limbs
Impaired vision and power of hearing	Exaltation of the sense of vision and hearing
Pulse slow and feeble	Pulse strong and frequent
Respiration slow and gentle	Skin hot
Skin cool	2nd period :—
2nd period :—	Severe headache
Paralysis of one or more limbs	Pains, convulsive movements, and contraction of the limbs
Imperfect power of articulation	Delirium :—
Inteiligence enfeebled	Face red turned
Coma :—	Conjunctivæ injected
Countenance pale, sunk	Pupils small
Dry brown tongue	Redness of the tongue
Feeble irregular pulse	Hot skin
Cold skin	

The connexion between apoplexy and epilepsy, Dr. Copland thinks, is more intimate than even modern authors generally admit.

"In some instances the epileptic seizure may present the mixed character, or the state intermediate between apoplexy and epilepsy; or it may be viewed as apoplexy attended by convulsions." "These mixed forms of seizure are not infrequently attended by palsy." Passing by a chapter on the relation between insanity, apoplexy, and paralysis, we come to that on the Connexion of Apoplexy and Palsy with Disease of the Heart. Palsy and apoplexy are probably as frequently the result of obstructed circulation through the right side of the heart, and through the lungs, and consequent impeded return of blood through the brain, as of increased force of the circulation through hypertrophy of the left ventricle. Simple hypertrophy of the heart is more frequently associated with hæmorrhage into the substance; obstructive disease, with congestion, serous effusion, &c.

Under the head of *Several other Consecutive and Complicated States of Apoplexy and Palsy;* the relation between suppressed hæmorrhage, evacuations, and eruptions; the metastatic relation between gout and rheumatism, and apoplexy and palsy; the influence of hepatic and gastric disorders, of colica pictonum, and of diseased kidneys, on the same affections, are considered. In apoplexy, the consequence of disease of the kidney, Dr. Copland attributes the symptoms to congestion and effusion; paraplegia, under like circumstances, he thinks may arise from congestion of the venous sinuses of the spine. The relation between neuralgia, chorea, and hysteria, are discussed at some length in the concluding chapter of the fourth section.

The diagnosis and prognosis of apoplexy and palsy constitute the fifth section; the remote causes, or contingent occasions, and the pathological states producing palsy and apoplexy, the sixth section. The common exciting causes of apoplexy, such as mental anxiety, fits of passion, external heat, intemperance, &c., Dr. Copland says, first excite and

then exhaust the vital energy. "Now, as the brain," he continues, "is enclosed in an unyielding case, it must follow that when the capillaries are excessively distended, the veins which are the most yielding will be compressed." "Thus the circulation will be retarded; the portion of the ganglial system supplying the brain be likewise to a certain extent benumbed, and the functions of the organ abolished, even without extravasation having occurred." Dr. Copland is fully assured of the part played in apoplexy by the ganglionic nervous system of the brain and its vessels. When speaking of the cause of apoplexy, he says: "The proximate cause of a large proportion of the cases of apoplexy (not excluding those attended with hæmorrhage) is here imputed primarily to the condition of that part of the ganglial system which supplies the blood-vessels of the brain and the brain itself." The quantity of blood contained within the unyielding brain-case, Dr. Copland thinks can only be increased by removal of some of the cerebro-spinal fluid; the brain itself is, he says, incompressible; the relative quantity of blood in the different sets of vessels may, however, undergo alterations.

In the last section of his work—the seventh—Dr. Copland describes the treatment of apoplexy and palsy. He dwells much on the importance of distinguishing those cases of apoplexy which are attended with full flushed face, turgid veins, suffused or prominent eyes, heat of head, and strong pulse, from those other cases of apoplexy which are accompanied by a sunken pale countenance, cool head, and weak action of the carotids; for while in the latter stimulants, antispasmodics, and restoratives, are more or less freely to be administered, in the former, blood-letting, irritating purgatives, revulsants, and derivatives are imperatively demanded. Accordingly, as one or the other of these states predominates, so is the treatment to approach the one or the other extreme. The prophylactic treatment is discussed at some length by Dr. Copland. The importance of regulating diet, exercise, the mental state, &c., strongly enforced. After considering the treatment to be pursued in the various forms of apoplexy and palsy, Dr. Copland concludes with a survey of the various remedies that have been proposed, and the indications for their employment; *e.g.*, mercury, antimony, blisters.

Speaking of emetics, he says, the testimony as to their value is most contradictory, and quotes a host of hard and of great names both for and against their employment. His own opinion is, that they may be employed with advantage, not only to remove from the stomach hurtful ingesta, but in an active seizure, when hemiplegia is not present, and full depletion has been employed.

We have thus presented to our readers a pretty full analysis of the two most recent publications on apoplexy; Dr. Copland treats of every variety, Dr. M. Hall of one form only of the disease; so that, in a certain sense, their works do not admit of comparison; yet we cannot avoid remarking the striking contrast presented by the production of the learned literary labourer with that of the acute observer, the profound and original thinker, and the able reasoner—the one speaks of the past, the other dwells on the future; the one will be appreciated by his contemporaries in age and standing, the other by men his juniors in years and reputation,—both valued at their true worth only in another generation.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

F. Hird, Esq., Vice-President, in the Chair.

ON THE COMMUNICABILITY OF THE GONORRHŒAL VIRUS.

Dr. Burke Ryan read an abstract of a paper "On the Communicability of Gonorrhœal Virus," in reference more particularly to medical jurisprudence. He was called, on the 15th of the present month, to examine two children, sisters, aged respectively one and four years. He found both labouring under a profuse puriform discharge; in the elder child, of a fortnight's duration; in the younger, of nine days. There was much fever; the parts, particularly in the elder, much swollen, and both suffered great pain in passing water. The mother had no notion of the nature of the affection until an old woman, calling accidentally, told her the children were diseased. The whole thing became thus explained, as a young woman had just then been lodging in the house labouring under profuse discharge, as the mother of the children saw by her linen. This young woman was found washing herself in the same vessel in which the children were wont to be bathed, and applied to her generative parts the sponge used for washing the children. Little was thought of this occurrence at the time, the mother merely telling the girl she ought not to use the children's sponge for her own purposes. Had there been but one child, Dr. Ryan remarked, he might have passed it over as an ordinary case of vaginal discharge in a child; but, there being two sisters of this tender age consecutively affected, and the infectious cause being so easily traced, he thought it worthy of record, and tried to make it as plain as possible by further inquiry. He therefore obtained an interview with the girl, who said, that two months before she contracted gonorrhœa, under which she still laboured; that she *did* use the children's sponge as mentioned, but that she thought it more probable that the elder child caught the disease by sitting on the same vessel to pass water as she herself used. From each of the three Dr. Ryan took some of the discharge, and obtained the valuable assistance of Mr. Quekett in examining them, under a magnifying power of 500 diameters. There was scarcely anything but pus globules, thick and well defined. The discharge from the young woman, in whom the disease had been wearing itself out during two months, was of a more sanious character. There was epithelium in abundance; a few mucus and also pus globules diffused, but occasionally more aggregated. Dr. Burke Ryan remarked on the paucity of well-recorded cases (if any) of this nature given by elementary writers, but more especially by writers on forensic medicine. Indeed, some of our best authors seemed to take it for granted that gonorrhœa is to be communicated in one way. Thus, Cooper says, "From the manner in which the disease is contracted," &c. Liston, "That people come with all sorts of stories of how they come by the disease,—the water-closet," &c. Forsyth, in his Dictionary, speaks of it as a discharge "after impure coition." A writer in the *Lancet*, Vol. I., 1845, p. 262, says, it is the result of "impure intercourse between the sexes." Beck, in speaking of vaginal discharges where, in children, strong suspicions were raised by the parents (against a third party) of its being of a gonorrhœal character, bestows not the least attention in pointing out how the disease may be contracted in the manner above related, and how, consequently, undeserved suspicion may attach to an innocent party, to be followed, perhaps, by punishment. And Taylor, in giving, as one of the four sources of evidence of rape, the existence of gonorrhœa, adds shortly after: "If the child be labouring under syphilis or gonorrhœa, this is positive evidence of impure intercourse either with the ravisher or some other person." Now, in the cause of humanity, Dr. Ryan considered it was our duty in such cases as these to take care that no innocent person suffered; for had this disease not been so easily traced to its source, or had there been any suspicion of foul play from lads or men who had had access to the children; or had the character of the inflammation, instead of the red and sthenic, partaken of the epidemic and deep-coloured appearance, with its dark tint, bespeaking signs of violence, as spoken of by Lawrence and others, then the same fate might perchance befal the suspected person as befel the boy whom Beck mentions as having slept in the same bed with Jane Hampden, aged four years, two or three nights. The child's parts were sore and inflamed, and in about a week she died. The boy was condemned to die on the surgeon's evidence, who afterwards had time enough to find that the little girl laboured under an epidemic disease. Or, suspicion might be awakened as in the parents of two children, the one aged four the other six, mentioned by Capuron, where they declared violence had been used. Dr. Ryan considered it a duty to place on record as many such cases as possible. He saw no reason why people might not contract disease from the seats of water-closets; and in the case of a virtuous and truthful woman who labours under gonorrhœa, and yet assures us she has had no improper connexion, it would be a painful thing and repugnant to all feelings of charity, not to give her the benefit of the doubt.

Mr. Dendy remarked that there was nothing novel in Dr. Ryan's case. No one in extensive practice now believed the introduction of the virile member necessary to cause gonorrhœa. If the discharge of that disease were applied to a mucous membrane in any way, gonorrhœa would be set up. The diagnosis between acute leucorrhœa and gonorrhœa was very important, and sometimes difficult. Dr. Ryan's case seemed to be an instance of gonorrhœa. He

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would be glad to know what remedies had been employed in treating these cases.

Dr. Ryan had not yet commenced their treatment, except by means of an astringent wash.

THE SYMPTOMS OF PULMONARY CONSUMPTION.

Dr. Hutchinson read a paper upon the "Symptoms of Pulmonary Consumption," a disease so common in this land, that (he said) it needed an apology for venturing to speak upon it. He desired merely to observe upon those points to which his attention had been particularly attracted, there still being room for facts to lead us to determine the presence or absence of the disease in question. There are three great symptoms, *i. e.*, primary symptoms of consumption. 1. Loss of weight; 2. Diminished breathing movement; 3. Morbid breathing sounds; and in this order they present themselves.

Of the Loss of Weight. — This is a constant and primary sign; and there is no evidence of this disease when the weight is undiminished. If we can be sure upon this point, we are safe in affirming that there is no evidence of consumption. Happily, the patients' word can generally be depended upon; they seem to know and to speak with confidence upon the question of their loss of weight. This sign gives the first great mental bias of the presence or absence of consumption. True, a person may lose weight and not have consumption; but he cannot have consumption and not lose weight. A table exhibited before the Society gave the result of 3000 observations upon healthy weights in men. This appears to increase in an arithmetical relation with the height —about 6 lbs. per inch from 5 ft. to 6 ft., the mean at all heights being 155 lbs. Compared with this, 1000 observations upon weights of phthisical patients were exhibited; the difference was very great, being only 111 lbs. for the men, and 104 for the women; or joining the male and female phthisical weights, the mean difference between the healthy and the diseased is 38 lbs. Such is the effect of the ravages of this disease. A patient may have phthisis and weigh as much as a man in health; but though the expression of weight is the same, the difference is great in their relative character of weight; the healthy ten stone is not like the phthisical ten stone weight. We can indeed only judge of the improvement or otherwise in the patient by the weight.

The Second Sign is Diminished Mobility in the Breathing Movements.—The chest next changes in its form and movement in respiration. The healthy chest is *erect;* shoulders point backwards, and the deep inspiration is symmetrical, and swells out plentifully under the hand when laid over the upper ribs. The phthisical chest is *not* erect, the shoulders incline forwards and inwards, and the movement in respiration is more limited and pinched, besides oftentimes non-symmetrical. The volume of air expired relative to the healthy and diseased cases is greatly different. By the spirometer which the author had constructed—merely a machine for measuring air—it shows the difference to be as 79 to 237; and in the first stage of phthisis as 129 to 222, or a deficiency of 42 per cent. As these figures differ, so the healthy movement differs from the diseased movement. The action of the intercostal muscles was then illustrated by a machine, showing without doubt that an oblique tension between two bars alone, elevates or depresses the bars *independently of* any other force, and hence each series of muscles antagonise each other, and give us independent means of breathing by each intercostal space. (See *Art. Thorax, Encyclo. Anatomy and Physiology.*)

The Third Sign is that of Morbid Sounds.—These are primarily of two kinds; sounds affecting the volume of air entering, as harsh, deficient, feeble; and secondly, sounds produced by morbid secretions, as click, crackle, crepitation, or gurgle. These latter were of two kinds only,—a dry crackle and a moist crackle,—indicative of crude tubercle and softened tubercle, or inflammation of the lungs. The author merely hinted at these points as a rude outline of what he had, by experience, found useful. These three signs—weight, chest mobility and form, and morbid sounds—appear in regular order; the third cannot exist without the second, and the second cannot exist without the first sign. They might exist without phthisis, but, when indicative of phthisis, their character was well marked. The paper was illustrated by very numerous diagrams and tables, indicative of thousands of observations upon the different points touched upon. The numerous collateral signs were too many even to name; a Table of them has been published, (*Medical Times* for September 7, 1850.) The primary signs were signs clear to be determined, and definite in their existence; and he believed they would be found useful adjuncts in determining the question of the presence or absence of phthisis pulmonalis.

In the discussion that followed, Dr. Sibson, after complimenting the author on the value of his observations, and the great amount of labour bestowed in carrying them out, commented on the sign, "loss of weight;" which, he contended, might be indicative of other diseases as well as of phthisis. He mentioned a case published in the "Medico-Chirurgical Transactions," of a man in the last stage of consumption, who expelled during expiration nearly the usual quantum of air within six weeks of his decease, and then proceeded to give the following exposition of his views on the action of the intercostal muscles:—He said, with regard to the intercostal muscles, their action is simple and definite in the reptiles and birds, all the external intercostals being inspiratory, and all the internal expiratory. But this simple action is replaced by a complex but beautiful arrangement in man, in the dog, the porpoise, and all those animals breathing with an efficient diaphragm. What is the effect of the diaphragm during inspiration? It rapidly and greatly lengthens the lung; some arrangement is, therefore, rendered necessary to prevent the sides of the lungs from being compressed by atmospheric pressure while they are elongated from end to end. To meet this it is beautifully arranged, that the upper part of the lungs which, in the bird, is unprotected by ribs, is, in man and the mammalia, effectively roofed over, and shielded by a bony frame-work of ribs, sternum, and vertebræ. The solid walls of the chest expanding upwards, outwards, forwards, and backwards, at the same time that the fleshy floor of the chest is moving downwards, and so lengthening the thoracic cavity. How different are the provisions for the mechanism of breathing in man and in the bird; while in the latter all the ribs move parallel to each other, in the former the upper ribs converge, while the lower ribs diverge during inspiration. This was the contest, and the explanation of the contest between those illustrious physiologists Haller and Hamberger. The former only observed the movement of the upper ribs; and he said, that the ribs all converged; the latter noticed the lower ribs, and observing their divergence, he said that all the ribs diverged. Both those physiologists were right, as far as they observed; they did not observe the whole of the phenomena, and therefore they fell into error: had they calmly combined their researches they would have observed the whole truth. In the bird, while the lungs above are unprotected in front,—while the abdomen is shielded by a bony covering,—in man the lungs above are shielded in front, and the abdomen is unprotected, being only invested with a fleshy covering, so as to give free mobility to the diaphragm. This remarkable and fitting arrangement of the ribs in man, and the other mammalia, is necessarily attended by a corresponding modification in the action of the intercostal muscles. The superior ribs converge during inspiration, and the superior intercostals both external and internal, are inspiratory, combining to draw the ribs together. Moving in a totally different manner, the lower ribs diverge; and the lower intercostals, both external and internal, are expiratory, combining to draw the ribs together during the act of expiration. Between the intermediate ribs the external intercostals are, as in the bird, inspiratory throughout; and the internal intercostals are throughout expiratory. The action of the intercostals Dr. Sibson would gladly show to any physiologist on the living animal, under the anæsthetic influence of chloroform.

Mr. Richardson sought to explain the greater capacity for air in the chest of a tall person, as compared with that of the shorter one, by the greater descent of the diaphragm during inspiration. He said, further, that there was a great difference in that capacity in persons lying down and standing up. Loss of weight in phthisis was often very great before the lung was much diseased; and he mentioned a case which the loss of weight, want of mobility of the chest, and the presence of the morbid breathing sounds, had led him to treat as one of consumption, whereas the *post-mortem* appearances showed that the lungs were not diseased, but there was a large amount of pleuritic effusion.

Dr. A. B. Stewart referred to the pain under the left nipple, spoken of by Beau, as indicative of phthisis, and also of the prolonged expiratory murmur, which he regarded as one of the most important signs of early phthisis, together with the *souffle* under the clavicle synchronous with the systole and diastole of the heart. These symptoms, coupled with those described by Dr. Hutchinson, he (Dr. Stewart) considered pathognomonic of consumption.

Dr. Payne Cotton had not noticed the pain under the left nipple, but the prolonged expiratory murmur was one of the

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earliest symptoms, and the most to be depended upon. The *souffle* under the clavicle was not a symptom on which reliance could be placed, as it might arise from other causes besides phthisis. The signs of consumption spoken of by Dr. Hutchinson were all very important, but they did not go far enough. The morbid breathing sounds were not the only physical indications of phthisis, as the physical alterations of structure of the lungs produce other signs and peculiarities of breathing besides those described by Dr. Hutchinson. A patient may have all the other symptoms of consumption, without loss of the mobility of the chest; but that state would not continue long while the disease was advancing, or where there was much tubercular matter deposited.

Dr. Hutchinson, in reply, showed that Dr. Sibson had generalised on a few cases only. He then reiterated the opinions he had already expressed respecting the action of the intercostal muscles, and with reference to the semeiology of phthisis, and the questions put to him, remarked, that he had only commented on a few of its signs, and not on all those that mark the advent and progress of the disease. They would be found described at length in his papers published in the *Medical Times*.

WESTERN MEDICAL AND SURGICAL SOCIETY.

The fifth anniversary meeting of this Society was lately held in the large room in the Cadogan Gardens, Sloane-street. There was a very full attendance both of members and visitors on the occasion. Among the latter were the Presidents of the London Medical and Harveian Societies.

The chair having been taken by the President, Dr. Robert Lee, F.R.S., the report of the Council was read by the Honorary Secretary.

From this document it appears that the Society continues to prosper, there being a greater number of members upon the roll than at any previous period of its existence. It was stated that 165 volumes had been added to the library during the past year, comprising works of great and acknowledged reputation of all kinds,—medical classics, books of reference, and modern works of scientific or practical interest. This was the largest addition that has been made in any one year. The library now contained above 700 volumes, a catalogue of which was in preparation, and would soon be distributed to members. The Report then alluded to the valuable communications which had been laid before the Society, and went on to notice an alteration which had been made with regard to the meetings, which were in future to be held on alternate Fridays from October to May. To conduct the business of the Society more efficiently there was also to be an additional secretary. The finances were shown to be in a satisfactory condition. Finally, the Report alluded to the *objects* for which this Society had been instituted—the union of the whole body of the Profession resident in the western suburbs of the metropolis, for the purpose of mutual improvement, the interchange of kindly feeling, and the advancement of the science and art of medicine. Congratulating the members on what had been done, it reminded them how much there was yet to do, and what great need there was of exertion on the part of every one of them to maintain the character of the Society, and to extend its usefulness. The spirit which had animated them hitherto, and the kind feelings which had been exhibited to the Society by those members of the Profession who were not yet in co-operation with it, encouraged the Council to believe that it would continue to extend, and that their great object would ultimately be accomplished. This report was unanimously adopted, as was also a resolution conveying the thanks of the Society to the President and officers for their services during the past year.

Dr. Robert Lee, who was very warmly received, acknowledged the resolution, and spoke as follows:—Gentlemen, from the Report of your Council which has now been read, it appears that this Society, during the past year, has been in a prosperous condition; that its members have increased in number; that none have been removed by death; that interesting communications have been made and read at the meetings; and that animated and profitable discussions upon these have taken place. I may now, therefore, congratulate you on the present flourishing state and on the future prospects of this Society, and express a well-grounded hope and conviction, that, if the objects of its founders be steadily kept in view, at no very remote period it will become one of the most influential medical associations of the metropolis. Since its institution you have derived from it all the advantages which can be obtained from such a Society, where you have often met together as professional brethren, and as men of science, and have brought together, as into one focus or centre, for common consideration and discussion, the results of all the most important observations made in practice. I feel confident that you have derived great benefit from such discussions; that your devotion to medicine (which your late President affirmed to be an "indifferent and irksome trade, but a noble and interesting science") has greatly increased; that the field of inquiry and the correspondent grasp of your minds have been greatly enlarged by such intellectual exertions. Discussion, the collision of conflicting opinion in public associations such as this, is the great means by which truth is elicited, empiricism curbed, and the adoption of crude hypotheses and rash conclusions prevented. You have all learned, by these discussions, that the great principles of medicine "are not to be adopted without due questioning and examination." In a word, gentlemen, you have derived and will continue to receive from this Society all the advantages which scientific men of every class throughout Europe have obtained from similar associations in the course of the last two hundred years, and which have been so well described by the great French mathematician, La Place. "The chief advantage of learned societies," he says, "is the philosophical spirit to which they may be expected to give birth, and which they cannot fail to diffuse on all the various pursuits of the nations among whom they are established. The isolated scholar may, without dread, abandon himself to the spirit of system. He hears the voice of contradiction only from afar. But in a learned society the collision of systematic opinions soon terminates in their common destruction, while the desire of mutual conviction creates among the members a tacit compact to admit nothing but the results of observation, or the conclusions of mathematical reasoning. Accordingly, experience has shown how much these establishments have contributed, since their origin, to the spread of true philosophy. By setting the example of submitting everything to the examination of a severe logic, they have dissipated the prejudices which had too long reigned in the sciences, and which the strongest minds of the preceding centuries had not been able to resist. They have constantly opposed to empiricism a mass of knowledge, against which the errors adopted by the vulgar, with an enthusiasm which, in former times, would have perpetuated their empire, have spent their force in vain. In a word, it has been in their bosoms that those grand theories have been conceived which, though far exalted by their generality above the reach of the multitude, are, for this very reason, entitled to special encouragement, from their innumerable applications to the phenomena of nature, and to the practice of the arts." Gentlemen, for the honour you have conferred upon me, in electing me President of this Society, I entreat you to accept of my warmest and most grateful thanks. Your first President was an eminent Physician, your second a very distinguished Surgeon; the third, who has now the honour of addressing you, was chosen their successor because he had zealously devoted a great part of his life to the study, the practice, and the teaching of Midwifery. These being the grounds of your choice, and the greater number of you being extensively engaged in the same department of practice, perhaps you will allow me to offer you a few general remarks on the progress of Midwifery since the commencement of the present century, and its condition at the present time. The sound principles of English midwifery, established by the labours of the Chamberlains, Gifford, Chapman, Smellie, Hunter, and other distinguished men, were set forth in the most perspicuous manner by Dr. Denman in 1768, and were then reduced to aphorisms, or fixed maxims, which many students and practitioners committed to memory. The rules laid down by Dr. Denman so explicitly for the treatment of all the varieties of human parturition, natural, difficult, preternatural, and complicated, are those which still guide the great body of English accoucheurs with safety at the present time. None of these rules has undergone any essential modification, and all the reports of lying-in hospitals, public institutions, and private practice, since published, have only tended to fortify these precepts. The induction of premature labour, first proposed in 1756, and which will ever be considered as one of the greatest triumphs of English midwifery (equal, if not superior, in importance to the invention of the forceps, also of English origin,) had received but little notice at the time Dr. Denman wrote, but with the greatest authority he bore testimony to its safety, efficacy, and morality, and pointed out, with greater precision than had been done before, the circumstances which ought to guide us in the performance of the operation. The induction of premature labour has since been had recourse to in a great number of cases, and its safety and efficacy completely proved, not only in the slighter, but also in the highest degrees of

distortion of the pelvis, and thereby the danger of craniotomy and the necessity for the Cæsarean operation have been averted. But the induction of premature labour has been found applicable, not only to all the forms and degrees of distortion, but to ovarian, uterine, and bony cysts and tumours obstructing delivery; to cicatrices of the vagina; malignant diseases of the os and cervix uteri; organic diseases of the heart and lungs; dropsy of the amnion, and general dropsy; renal and vesical diseases; mania during pregnancy; and especially in cases where life is endangered by obstinate vomiting during gestation. "A knowledge of the anatomy and physiology of the gravid uterus," says one of our highest authorities, "is the foundation of midwifery, the sole security of the accoucheur amid all the dangers of practice, and his truest guide in every difficult situation; every rule of practice,—every precept must be derived from this source." Great additions have been made to the knowledge both of the gravid and unimpregnated uterine systems during the last thirty years. The human ovum in the ovarium, before impregnation, has been seen and demonstrated; and unimpregnated ova have been proved to exist in the Graafian vesicles of all animals. The change which takes place every month in the human ovaria has been observed, and the phenomena of menstruation explained. The changes also in the human ovaria after conception, and the structure of the corpus luteum, have been determined. Great light has also been thrown on the physiology and pathology of the human ovum, both in the earlier and in the latter months. The double circulation in the placenta, as first described by W. Hunter, has been experimentally decided to exist, and the course of the maternal blood through the decidual membrane and decidual cavity has been accurately marked out. The ganglionic nervous structures of the uterus, on which its peculiar sensibility, contractile powers, and innumerable sympathies depend, have been displayed—analogous to nervous structures which have also been shown to cover the surface and pervade the walls of the heart. The diagnosis of pregnancy, within the last quarter of a century, has almost been rendered perfect by the employment of auscultation and other means. Within the same period, all the organic diseases of the uterine organs,—all the malignant and non-malignant alterations of structure,—all the varieties of tumours and polypi have been subjected to the most elaborate anatomical research, and the varied appearances they exhibit have been represented by the most distinguished artists. It is now universally admitted, that most important additions have recently been made to our knowledge of puerperal diseases. From this brief survey of the progress of midwifery since the close of the last century, you will perceive that the science has been steadily and rapidly advancing. The result of all this has been, that the importance of midwifery, though tardily and reluctantly, is now generally acknowledged; and those who practise it occupy a much higher rank in the Profession than they did thirty years ago. It is, therefore, painful in the highest degree to be compelled to allude to the efforts which are incessantly being made by certain false teachers, who have crept into some of our public schools and universities, to debase uterine pathology by empirical proceedings, and to pervert and corrupt the sound principles of English midwifery. To you, gentlemen, the greater number of whom I know personally to be practitioners of great experience, it is unnecessary for me to denounce the indiscriminate employment of the speculum, and the application of the actual and potential cautery to the os and cervix uteri, disorganizing their structures; to denounce the folly and absurdity of rubbing the lining membrane of the virgin uterus with lunar caustic to excite what has been called a meastrual effort in cases of amenorrhœa and chlorosis; to denounce the practice of passing up unguentum hydrargyri fortius with a catheter into the cavity of the uterus, to dissolve fibro-cartilaginous tumours, which are as hard as brickbats, and nearly as insoluble; to condemn, as mischievous and senseless, all those strange metallic rings and prongs with hidden springs, and all the impaling uterine machines of every description, constructed for the purpose of relieving imaginary retroversions or backslidings of the womb; to deprecate the practice of slitting and cutting open the os and cervix uteri in all directions, with hysterotomes, for the cure of sterility. Lastly, it is unnecessary for me to denounce to you, as an outrage against science and humanity, substituting for the induction of premature labour, in cases of distortion, the employment of the forceps; the operation of turning when women are stupefied by chloroform; and even the Cæsarean section which Mauricean declares cannot be performed "sans un trop grand excès d'inhumanité, de cruauté, et de barbarie." But, gentlemen, these evil practices, which I have felt it my bounden duty to denounce to you, and which I entreat you to resist, cannot endure. Sound principles will always triumph; and I have good grounds for expressing my confidence in the stability of the great fundamental doctrines of English midwifery. They are built upon a rock, which cannot be shaken. On the 24th of March, 1851, the Royal College of Surgeons of England adopted the following resolution:—"That the Council of this College are prepared to form and superintend a Board of Examiners in Midwifery, or to co-operate with the Royal College of Physicians in the institution of examinations for testing the qualifications of practitioners in midwifery." If this resolution be carried into effect, and examiners be appointed who have specially devoted themselves to the study, the practice, and the teaching of midwifery—which I have no doubt will be the case—most important consequences cannot fail to result, not only to the public at large, whose interests are deeply involved in this measure, but also to the whole body of the medical profession. Surely, the Council of the College is entitled to our support on this occasion; and I earnestly hope and trust that this support will not be withheld by any one whom I have now had the honour to address. (The President resumed his seat amidst loud applause.)

The following gentlemen were then elected to fill the various offices during the year ensuing:—

President—Dr. Robert Lee, F.R.S. *Vice-Presidents*—Dr. Aldis, Mr. Barnes, Dr. Cahill, Mr. Godrich. *Treasurer*—Dr. Woolley. *Council*—Dr. Barclay, Mr. Batten, Mr. Bullock, Dr. Christian, Mr. D. Davies, Mr. Haden, Mr. Martyn, Mr. Sampson, Dr. Simpson, Dr. Traquair, Mr. Webb. *Secretaries*—Dr. Seaton, Mr. Keen. *Auditors*—Mr. Meates, Mr. Whitmore.

The proceedings terminated by a *conversazione*. In the course of the evening, Mr. Toynbee was kind enough to give a demonstration of his recent researches into the structure of the membrana tympani, illustrated by diagrams and preparations.

NORTH PANCRAS PROVIDENT DISPENSARY.

THE first annual meeting of this valuable Institution was held at the Vestry-room, Old St. Pancras-road, on Wednesday evening, the 16th instant, the Rev. David Laing, M.A., F.R.S., in the chair, when the plan and success of Provident Dispensaries, and their adaptation to the wants of the metropolitan working classes, were fully entered into.

The Chairman, in introducing the business of the evening, read a letter from Mr. Smith, the founder of these institutions, excusing himself from attending the meeting in consequence of ill-health. He said that the number who had joined the Institution had become very large, and he hoped that they would ultimately be enabled to render the dispensary wholly self-supporting. It had been objected that these institutions after all were obliged to depend to some extent on charity; but in the end he believed that they would find the poor perfectly capable of carrying out their own provident societies. It had also been said that they were solely for the benefit of medical men. He confessed, for one, that he did not advocate such institutions for any such purpose, but for the sake of his poor people; and he had always found that medical men were most useful to him, in helping him, not as professional men, but as friends. (Hear, hear.) And there was this benefit to both parties—that the payment being steady and equal, it became the interest of medical men that there should be as little disease as possible, and that that disease should be speedily remedied. Again, it very often happened that the medical bill was often the last pauperising element in the condition of the poor, and hence the very fear of the bill sometimes operated to bring on disease. It was also a great advantage here that the poor man could have his choice of the medical man who should attend him. (Hear.)

The Secretary read an abstract of the Report. It stated that

"The Committee had abundant grounds for congratulating the governors on the measure of success which had attended their efforts.

"The Society was instituted in February, 1850, but not fully opened for the enrolment of members till March.

"In the three quarters ending December 31, 1850, 515 members' cards have been issued. The majority of these cards represents an entire family; and it is found on computation, that the number of individuals represented by them, to whom the Society thus stands pledged to afford medical relief, is 1589—a number far exceeding the expectations of your Committee, and which they believe is greater than has been exhibited by any similar Society during its first year.

"The number of cases actually under medical treatment during this period has been 1436, of whom 1182 have been entirely cured; 112 relieved; 22 have died; 126 still remain under treatment; 55 midwifery cases have also been attended by the medical officers of your Society.

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"The members express great satisfaction with the medical arrangements of your Society, by which they have the choice secured to them of five professional men in the neighbourhood; and your Committee have much pleasure in bearing their testimony to the indefatigable and zealous manner in which those gentlemen have discharged the duties of their office. Your Committee firmly believe that disease has frequently been arrested in its progress by their prompt and efficient attendance, which would otherwise have been left unresisted to hurry its victims to an untimely grave. It is pleasing to state, also, that many instances have occurred in which patients, who have been happily raised from a bed of sickness, have hastened to express their gratitude to the Society, by presenting a donation to its funds, as a token of thankfulness.

"The amount of donations and subscriptions received from the public, on account of the contributors' fund, has been	£68	18	0
While its expenditure has been	74	5	2
Being an excess of expenditure over income of ..	£5	7	2

"This excess would have appeared much larger, but for the accidental circumstance of your Committee not having held its usual monthly meeting in December, from which it has happened that all the accounts which were due at Christmas have been necessarily excluded from the statement.

"Your Committee, finding themselves unable to meet their liabilities from the proper fund, were compelled to make a temporary appropriation of the members' fund to this purpose, with the consent of the medical officers, who generously waived their own rights for the good of the Society. This sum your Committee regard as a loan to be faithfully restored to the medical fund when ever the liberality of the public shall enable them to do so.

"The amount received from the members, and placed to the credit of their fund, it will be seen has been	£142	18	7
While the expenditure has been	79	7	5
Leaving a balance of	£63	11	2

Out of which, the sum of *5l.* 7s. 2d. has been transferred to the contributors' fund, and the remainder carried to the next year's account.

"The balance in treasurer's hands may appear a large one, and may excite surprise; but your Committee have to state in explanation, that at the close of the year there was due by the Society for drugs and medicines, *45l.* 2s. 2d.; for midwifery fees, *9l.* 15s.; and a quarter's division among the medical officers,—all payable out of the members' fund; so that the balance has since been entirely swallowed up.

"The statement of the contributors' fund also shows an account of liabilities outstanding, against the Society, amounting to *52l.* 7s. 3d.

"To meet this amount due on account of the past year, and which should have been paid at Christmas, there are not only no funds in hand, but the Society is also a debtor to the medical fund to the extent of *5l.* 7s. 2d., which has therefore to be added to the amount of the Society's liabilities.

"Such is the present financial position of the Society: successful beyond the most sanguine expectations of its founders, it yet is reduced almost to a standstill for the want of that measure of public support which is necessary to enable it to carry on its work. Unless the needful funds be provided, your Committee will either be reduced to the painful necessity of again trenching on the hardly won funds of the medical officers, or to the still more painful necessity of closing an Institution from which such great advantages have been derived. The annual income required from the public is but a small one, compared with the importance of the Institution. 150*l.* a year, it is calculated, will cover all its expenses, and enable it to carry on its work efficiently. Your Committee cannot as yet reckon on half that amount; but they cannot think that such support will be withheld from the Society, as soon as its merits shall become better known."

H. Chubb, Esq., briefly moved the first resolution as follows:—

"That this meeting views with satisfaction the success which has attended the operations of the North Pancras Provident Dispensary, as affording an evidence of the adequacy of the provident principle to meet the wants of the labouring classes."

Dr. Forbes, F.R.S., in seconding the resolution, observed that he had been long impressed with the value of these Institutions, and he believed that they had failed chiefly through the prejudices of his medical brethren. Those prejudices, however, he trusted were now pretty much done away, and he hoped that they would now be found promoting such Institutions with all their influence out of a just regard to the interests of the poor of the land. Those who had had any long intercourse with the lower classes, must be deeply impressed with the sad condition in which many of them were now plunged. They were extremely ignorant of their own interests, and he regarded such Institutions as these as adapted to remedy this growing evil. Much had been done, but much still remained to be accomplished; and he hoped and believed, that as education increased, they would see where their own interests lay, and feeling their own position as in many respects a necessary one, they would be led to secure to themselves the benefits derivable from provident dispensaries. This, he believed, would result in a most wonderful change in the state of society. In a medical point of view, nothing would be so important as for the poor to feel that they had a right to claim medical assistance; and he was of opinion that this one principle carried out would tend to render diseases among the poor of shorter duration. Another point was the feeling of independence which would be thus engendered, and the comforting influence on the minds of the poor connected with the consciousness that they had no medical bill running up. It was melancholy to think that nearly the whole body of the labouring poor had not the means of defraying their medical bills. Common charity dispensaries had many disadvantages,—the poor could not readily get rid of the feeling that they were absolutely paupers; but he was quite sure that if provident dispensaries could be extended all over the land, they would be the means of regenerating the poor, while he believed that great advantages to the Medical Profession would result, since his professional brethren would be left with more opportunity of study, and that the more medical science advanced the less would the Profession depend on mere drugs, and they would become convinced that the most successful treatment was the recognition of the power of nature to cure disease. The medical profession had been often reproached with the mere *diligentia* of their art; but such institutions as these would be of benefit, by removing all temptation of interfering more than was necessary. Prevention was better than cure, and he looked on it as the highest point of medical science. These dispensaries might be made most useful in instructing the poor how to avoid disease, and this would add to the comfort and happiness of the whole community.

H. B. Norman, Esq., supported the resolution. Having seen a great deal of the habits of the poor, he had originally formed an opinion unfavourable to such societies. He had found that a class of persons with comparatively large incomes were in the habit of attending hospitals and dispensaries, many of them, perhaps, better off than the medical men who were attending them. He had, for instance, attended butlers with 50 guineas a year and perquisites; and he believed that, from the facility with which they could get medical advice, they were led downward in their career to other improvident habits. He had, however, become acquainted with Mr. Smith's views and plans, and he now claimed something of the parentage of this Institution. He had great pleasure in forwarding its interests, and he had a strong conviction that the poor would hail it as a boon to them: that it would tend to check the progress of epidemic diseases, and would lead many persons to provide for their higher interests.

The resolution was then put and carried.

The Rev. J. C. Harrison, in brief terms, moved the next resolution, as follows:—

"That experience proves that the labouring classes are, with a very little assistance from the more affluent, capable of providing the ordinary medical relief for themselves and families by means of their united contributions, and that the moral value of the provident principle, (as carried out in Mr. Smith's, of Southam, plan of provident dispensaries) apart from its physical benefits, renders its further extension highly desirable."

Dr. Stewart, in seconding the resolution, observed, that these dispensaries would afford a standard by which to estimate the meaning of words. He had seen a sermon advertised for a dispensary in the neighbourhood—which was, as there stated, established for the sick poor,—the servants of governors included. He thought this was an abuse of language; for the greater number of such servants were better off than those who would be refused relief in Provident Dispensaries; and it was absolutely necessary that such assistance should not be extended to those who could get assistance for themselves. It had been objected to these institutions, that the poor would thus be made very selfish and very exacting to their medical men; but he believed that this was a calumny upon the working classes. These institutions co-operate for the express purpose of helping those who help themselves. He should like to see the honorary fund devoted to the purpose of establishing convalescent institutions. It was often the case, and of necessity, that a patient might be discharged nearly well from other establishments, but, for want of due attention during convalescence, life after that was little more than a lingering disease. Comparing free with provident dispensaries, he believed

that the one was the easy road to the workhouse, while the other was the easy road to the saving's bank.

Robert Whitestone, Esq., briefly supported the resolution, which was then put and carried.

Dr. Sharpey, F.R.S., moved the third resolution as follows:—

"That an honorary fund, in addition to the payments of the members, being necessary to enable the Committee of the North Pancras Provident Dispensary to carry out their work of usefulness to its fullest extent, additional efforts should be made to raise the necessary amount."

He said he had heard the objection made, that the interests of the Medical Profession were injured by these institutions; it had been alleged that their operation amounted to an injudicious interference between a medical man and his patient. Now, if that class of persons who were provided for by such dispensaries did not avail themselves of them, what would be the consequence? They would apply to free dispensaries or hospitals. Here was a double evil; they absorbed the resources of those institutions, and they acquired the habit of dependence on charity, which had a very pernicious influence on them, for they might be sure that when a man, who was not necessitated, had made himself the recipient of free medical relief, he had taken the first step in a downward course. Another class had recourse to chemists, and received across the counter medicines made up by persons not duly authorised; and still another class found that, after a long illness, all their resources were expended, and then their medical attendant went altogether unrewarded. Now, whether was it better for a medical man to obtain his remuneration at the expense of a poor man's comfort, or, by means of a small sum collected by an institution like theirs, a tax onerous to none. Again: Some people have strange misgivings with respect to association; it had been said that the poor would thus become selfish and arrogant, and would endeavour to bring medical men to their own terms, and contrive to extort medical assistance without rendering adequate remuneration. He had no fears in this respect; he believed that these kinds of combination were rather a safeguard than otherwise. Mr. Smith seemed to have foreseen this objection, and hence, to prevent all cavil, he adopted the principle of combining an honorary fund, thus constituting a body to arbitrate between parties.

Mr. J. Scott seconded the motion, which was carried.

Donald Fraser, Esq., moved, and J. Marshall, Esq., seconded a vote of thanks to Mr. Smith, the founder, and to the Chairman; which having been acknowledged on the part of the latter, the meeting separated.

MEDICAL NEWS.

Royal College of Physicians.—At the quarterly meeting of the Comitia Majora, held on Monday, the 14th inst., the following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College:—Dr. Meryon, 14, Clarges-street; Dr. Hall Davis, 17, Russell-place, Fitzroy-square.

Royal College of Surgeons.—The following members of the College of Surgeons having undergone the necessary examinations, were admitted at the last meeting of the Council Fellows of the College:—Messrs. William Adams, New Broad-street, diploma dated February 4, 1842, James Alexander, London, November 19, 1841; Walter Rice Howell Barker, Wantage, March, 5, 1841; James Henry Butler, Bengal Army, April 26, 1839; and James Cuthbert Ottoway, Dover, April 19, 1833.

The Hunterian Museum.—The Secretary of the Royal College of Surgeons has just sent a letter, of which the following is a copy, to all the foreign ambassadors and consuls-general:—"Sir,—I am desired, by the President, to transmit to you the accompanying cards, for the admission to the museum of this College of such distinguished and scientific individuals from ——— as may be desirous of such admission during their visit to London, in the period of the approaching exhibition in Hyde Park, and to acquaint you that gentlemen presenting such cards, signed by yourself, will be admitted. I am further desired to add, that as the days named in such cards are not those on which the Profession and the public are admitted, it is requested that the delivery thereof may be restricted to distinguished and scientific individuals. Other persons will not experience any difficulty in obtaining admission on those days on which the public are admitted, namely, Monday, Tuesday, Wednesday, and Thursday, between the hours of twelve and four.—I have the honour, &c."

College Lectures.—Professor Paget will commence his course of Lectures on Tumours, in the theatre of the College, on Tuesday next. Professor Owen delivers the last of his course of lectures on Comparative Anatomy this day, (Saturday.)

College Studentships.—The Council of the College of Surgeons announce on our cover their intention to elect another student in human and comparative Anatomy in June next.

Appointment.—Mr. Thomas Allen, M.R.C.S.L., L.S.A., and of University College, London, has been elected to the office of assistant medical officer to the County Lunatic Asylum, Gloucester.

Naval Appointment.—Assistant-surgeon John Barclay, M.D., (1846,) to the Teazer, steam-vessel, for service on the coast of Africa.

Death of Dr. Bougon.—Letters from Venice, of the 4th inst., mention the death of Dr. Bougon, the medical attendant of the family of the Duc de Bourdeaux. It will be remembered, that at the time of the assassination of the Duc de Berri by Louvel, Dr. Bougon was the first medical man who went to his assistance, and immediately sucked the wound, under the impression that the weapon was poisoned. Dr. Bougon, in 1830, followed the royal family of the elder branch of the Capets into exile, and remained with them till his decease. Such an example of truth and fidelity is indeed honourable to the Profession and to mankind. Would to Heaven the instances were more numerous.

Obituary.—On the 14th instant, at his residence, Dudley, Worcestershire, Archibald Barklimore Semple, Esq., surgeon, aged 38. On the 23rd January, at Nevada, California, Dr. Lennox, from Scotland. This unfortunate man was the victim of an atrocious and cold-blooded murder. On the 17th instant, at St. Clement's, Jersey, Charles Williams Poingdestre, M.D., aged 51. On the 3rd February, at Buenos Ayres, James Lepper, Esq., of Strabane, County Tyrone, retired surgeon, R.N. On the 18th instant, at Kensington, Henry Smith, Esq., late of Torrington-square. On March the 14th, at Bombay, Surgeon Frazer, 6th Native Infantry, Bombay troops. On March 5th, at Barrackpore, Surgeon Pearson, of the Bengal army.

The Essex Justices have accepted a tender to erect the county lunatic asylum for 63,466*l.*

Lord Langdale, whose recent decease the daily papers have recorded, and who was but a short month since the respected Master of the Rolls, was originally educated for the medical profession.

A proposal is on foot in Hereford to establish medicated baths for the use of the poor at a low charge. This is an example worthy of imitation, and does great honour to the principality.

Botany in Nepaul.—Jung Bahadour, the ambassador from Nepaul, who was recently in this country, has, it is said, effectually exerted his influence to prevent Dr. Hooper from botanising in Nepaul, and thus discovering some of the treasures lavished by nature in that country. His position, attacked as he has been for his visit to Europe, has perhaps led him to adopt this extraordinary proceeding.

Society for Relief of Widows and Orphans of Medical Men in London and its Vicinity.—We beg to remind our readers, that the Annual Dinner of this Society takes place to-day (Saturday), at the Thatched House, St. James's-street.

Court of Common Council.—At a Court of Common Council of the City, held on the 17th inst., a proposal was brought forward to grant 105*l.* to the funds of St. Mary's Hospital, but was met by a counter-recommendation to give 52*l.* 10s., on the ground that Paddington was a very extensive and wealthy district, and could support a hospital without assistance. The amendment was ultimately negatived by a large majority. A petition for a grant, in aid of the funds of the City of London Hospital for Diseases of the Chest was referred to a Committee.

Yellow Fever still continued to linger in the Brazils at the date of the last report, but was confined to some recent arrivals of vessels. The thermometer varied from 82° to 88° in the shade.

A Rich Surgeon.—We lately recorded in our obituary the death of Ralph Fletcher, Esq., of Gloucester. It appears that this gentleman had acquired wealth chiefly in the practice of his Profession, to the amount of *eighty thousand pounds*. His position, as surgeon to the Gloucester County Hospital, and his celebrity as an operator secured to him for very many years all the principal consulting practice, not only of his own county, but the whole of South Wales. Mr. Fletcher commenced practice unusually early in life, not even giving himself time to complete his curriculum of study in London; but hurrying away to supply the vacancy of the surgeoncy to the Gloucester Hospital, caused by the death of his friend and teacher the celebrated Mr. Trye. Not-

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withstanding the absence of any diploma, Mr. Fletcher rapidly attained an eminence in his Profession which brought him patients from all parts of England, even the late Sir Astley Cooper, recognising his talents, placed his niece under his roof and professional care, and desiring to see him a member of the College of Surgeons, paid him the distinguished compliment of inviting him to enrol himself, to qualify himself for which, it was delicately hinted, that a lecture on some subject in surgery would, in his case, be substituted for an examination, to which latter it was certain he would not submit. Three members of the Profession, and their children, participate largely in the wealth he has left behind, namely his two sons, Dr. Fletcher, Physician, and Mr. Wm. Fletcher, Esq., Surgeon to the Gloucester Hospital, and his son-in-law, Mr. Yearsley, of Savile-row.

THE following diagrams represent an apparatus for bringing persons to life when apparently dead from any cause, lately invented by Mr. T. Small, surgeon, of Boston, Lancashire:—

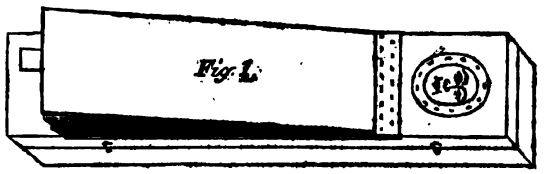

Fig. 1 represents the apparatus when in operation, the face of the patient only being exposed.

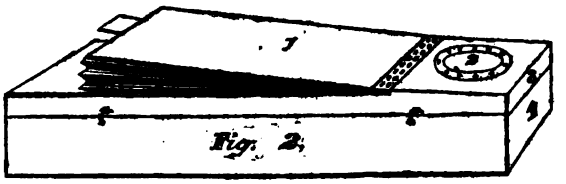

Fig. 2.—No. 1, the bellows; 2, the hole for the face; 3, the lid; 4, the box.

It is well known, that in many cases of drowning, hanging, suffocation, asphyxia from noxious gases, chloroform, and other substances, as well as in frequent instances of poisoning, hydrophobia, still-born children, &c., &c., death is only apparent, not real; and, if breathing can be induced, life can be restored. This simple apparatus is said effectually to accomplish this important object, in a manner exactly resembling the natural process of respiration, and is therefore peculiarly adapted for all cases where breath is the thing needed. It consists of a suitable sized box, with a moveable well-fitting lid, in which there is a hole lined with vulcanized Indian rubber; there is also an exhausting apparatus, like a pair of bellows on the top. *Mode of Use.*—The apparently lifeless body, with a towel or handkerchief pinned tightly round the belly, (to prevent the stomach and bowels from becoming inflated,) is put into the box, the lid fastened down, and the face exposed through the hole in the Indian rubber, (*Fig.* 1,) which must be kept closely fitted to the cheeks, chin, and forehead, so that no air can pass by the sides, but only through the mouth and nostrils. Another assistant then works the bellows gently up and down at the same rate that a healthy person takes his breath. By these means the lifeless body is compelled to breathe, and animation is restored. Electro-magnetic apparatus and bottles containing restoratives can be fitted into little compartments near the feet. The larger sizes may be mounted on wheels. The use of these means to bring the person to life again, should not be given up under six hours' steady perseverance.

NEW MODE OF DESTROYING LIFE.—An aged woman, a nurse in the Camberwell workhouse, has recently been found guilty of the manslaughter of an infant in ill-health by inflicting numerous and severe pinches on different parts of the body. She had violently ill-treated it in other ways. The sentence was 18 months' imprisonment, with hard labour. Her great age, 75, saved her from transportation.

THE APOTHECARIES' COMPANY *v.* FAWTHROP.—The Apothecaries' Company have recently conducted an action in the County Court of Yorkshire, at Halifax, against Thomas Fawthrop, for practising as an apothecary in that town, in violation of their Act. The case was one of great interest, and drew to the court a large attendance of the medical practitioners of the town and neighbourhood. An objection was taken *in limine* against Mr. Holroyde, the counsel for the plaintiffs, opening the case without producing the seal of the Corporation; but this objection was over-ruled by the Judge. In the course of the evidence, it was fully proved that the defendant had acted, in all respects, as an apothecary; but it was objected that he did not practise on his own account, but as assistant to his brother, who is a surgeon at Queen's Head. It appeared that the style and title of the concern was that of J. Fawthrop and Co., which was inscribed on a sign over the door; and the defendant read a letter from his brother, in which the latter authorised him to make such use of his name. Evidence was likewise adduced to prove that Mr. Joseph Fawthrop had attended twice a week, prescribed for patients, and dispensed medicines. There was also on the door the name of Pearce, surgeon; and the defendant wished to show that he acted under this gentleman's authority, as well as that of his brother. The defendant admitted that he had been twice rejected at the Apothecaries' Society. On the other hand, Mr. Joseph Fawthrop stated in his evidence, "My brother Thomas was never an assistant of mine, nor a partner either;" which, of course, shattered the defence. In stating the case to the jury, His Honour expressed "his opinion, that where an assistant was employed the principal ought to reside upon the premises, so that his advice could be at all times available by the public." The jury returned a verdict for the plaintiffs. This case appears to have presented greater difficulties than usual, as in many points it trenches closely upon the ordinary custom in deference to which assistants visit and prescribe for their principals, although they may not have obtained the legal qualification. The defendant's name was not set forth as the proprietor of the concern, and it appeared that professional men had allowed their names to be placed on the door as the ostensible principals, and had acted in that capacity. The defendant's case fell to the ground on his brother's evidence; although, if that evidence had not been given, it is probable that the result would have been the same, as the Judge's ruling would have prohibited the defendant from being regarded in the character of an assistant to his brother. This verdict constitutes a precedent which will give great stringency to the powers of the Apothecaries' Act. We believe that the Halifax local Society, in which Mr. Garlick has taken an active part, has had some share in bringing this case before the proper tribunal. It deserves the thanks of the Profession for its determination and public spirit.

ELECTRO-BIOLOGISTS have done so well in Liverpool, that a new lecturer on the same subject has been imported from America, in the shape of a M.D.

THE GREAT WILL CASE, Bainbrigge *v.* Bainbrigge, has been settled. The estate is to be valued and equally divided; the costs incurred on each side to be borne by the respective parties. The rumour is, that the entire costs fall little short of 20,000*l.*; but the property is valued at 80,000*l.* It does not do for doctors to have too much to do with law.

SESSIONAL REPORT OF QUEEN'S COLLEGE, BIRMINGHAM.—In accordance with the following regulations, issued by the Council of the Queen's College, in this town, namely, "that the professors shall keep a book specifying the times of attendance of each student, such book to be laid before the Council at their monthly boards; that previously to the commencement of every lecture the Professors shall call over the names of the students, and shall forward to the wardens, seven days before the end of each term, their registers of attendance, or a terminal report of the attendance, conduct, and progress of *each student* in their respective classes and departments from which details a general report shall be drawn up by the warden and submitted to the Council, and copies of the reports *on each student* shall be forwarded by the warden to the parent or guardian *of each student*," a most elaborate statistical report has been presented by the Rev. Prebendary Gray, the Warden, which cannot but prove highly gratifying to the friends of the Institution and to the public, and will afford a satisfactory proof of the earnest endeavours of the Council to maintain regularity and discipline in every department. Our space will only permit us to give a short abstract from the Report. It appears that ninety students have been inserted on the register of the medical department, of which number sixty students have been in attendance at the medical and surgical practice at the Queen's Hospital during the past session.

Collegiate Discipline.—Of the resident students in the Senior Department, Messrs. Wilkinson, Franks, Waller, Day, Webb, and Bussigny were reported as very regular and satisfactory in regard to collegiate discipline and attendance at the chapel. Of the resident students in the Junior Department, Messrs. Down, Coathupe, Bond, and Trevor were reported very satisfactory and regular in the same respect.

Anatomical Class.—In attendance 72 students, of which number Messrs. Brierley, Harris, Perry, and Roland were reported very regular; 39 regular, 13 moderate, 11 indifferent, 3 eger 1, dismissed 3, suspended 1.

Surgical Class.—In attendance 57 students, of which number

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Messrs. Adams, Brierley, Oakes, Perry, and Russell were reported very regular; 34 regular, 11 irregular, 2 very irregular, 1 eager, 3 dismissed, 1 suspended.

Practice of Physic Class.—In attendance 42 students, of which number Messrs. Beales, Cantrill, Day, John Fox, Franks, James, Perry, Wilkinson, and Stabb were reported very regular; 7 regular, 6 moderate, 16 indifferent, 1 suspended, 3 dismissed.

Midwifery Class.—In attendance 67 students, of which number Messrs. Adams, Baxter, Blake, Bussigny, Berryman, Brierley, Cantrill, Day, Franks, Oakes, Harris, Michell, Perry, Smith, Stillman, Scholefield, Salter, Thornhill, Turner, and Waller were reported very regular: 24 regular, 14 moderate, 5 indifferent, 3 dismissed, 1 suspended.

Chemical Class.—In attendance 27 students, of which number Messrs. Brierley, Green, Oakes, Harris, Baxter, and Salter were reported very regular; 10 regular, 6 moderate, 4 indifferent, 1 absent.

Anatomical Demonstration.—In attendance 73 students, of which number Messrs. Brierley, Franks, Oakes, Perry, M. B. Smith, Webb, and Wilkinson, were reported very regular; 25 regular, 13 moderate, 24 indifferent, 2 dismissed, 1 suspended.

The Medical Tutor's Class.—In attendance 12 students, of which number Messrs. Franks, Wilkinson, Wall, and Vincent were reported very regular; 6 regular, 2 occasional.

The Warneford Theological Class.—In attendance 43 students, of which number Messrs. Brierley, White, and Bussigny were reported very regular; 8 regular, 7 moderate, 10 indifferent, 6 irregular, 6 very irregular, 2 dismissed, 1 suspended.

JUNIOR DEPARTMENT.

The Warden's Theological Lectures were attended by 18 students, Messrs. A. Davies, Bond, Ffolliot, De Mierre, Arden, Coleman, Smith, Froysell, John Davies, Coathupe, Stedman, Theodore Davis, Turner, Down, Wolston, Hall, Trevor, and Cook, all of whom are reported as very regular.

The Greek, Latin, and English Classical Lectures.—In attendance 15 students, of which number Messrs. Froysell, Bond, Smith, Down, Trevor, and Cook were reported as very regular and satisfactory in their attendance and conduct; 7 regular, 2 moderate.

The Mathematical Lectures.—In attendance 18 students, of which number Messrs. Alban Davies and Smith were reported as very satisfactory; 11 satisfactory, 5 unsatisfactory in progress though regular in attendance.

The Medical Tutor's Lectures.—In attendance 17 students, of which number Messrs. Arden and Bond were reported as very regular and satisfactory; 11 regular and satisfactory, 3 moderate, 1 irregular.

Medical Classics.—In attendance, Messrs. Arden, De Mierre, and Ffolliott, of whom the two former were reported very regular and satisfactory.

The French Class.—In attendance 17 students, of which number Messrs. Down, Bond, Wolston, Theodore Davis, Alban Davies, John Davies, and Ffolliott were reported as very regular; 9 regular, 1 very irregular.

The German Class.—In attendance 7 students, of which number Messrs. Arden, De Mierre, and Theodore Davis were reported as very regular, and 4 regular.

The Drawing Class.—In attendance 7 students, of which number Messrs. Arden, Bond, Down, De Mierre, Davis, Wolston, Coathupe, and Ffolliott were reported as very regular; 2 irregular.

Students in Attendance at the Queen's Hospital, 60 in Number.—The following physicians' clerks and surgeons' dressers were reported as very regular:—Messrs. Wilkinson, Green, Perry, J. Fox, Webb, Franks, Day, Harris, Wall, and Cocherill.—Attendance very indifferent 3, suspended 1.

Clinical Medicine.—In attendance 40 students, of which number 35 were reported very regular, 5 regular.—Signed, Samuel Wright, M.D.

Clinical Medicine.—In attendance 17, of which number Messrs. Brierley, Oakes, Green, and Scholefield, were reported very regular, 4 regular, and 9 indifferent and occasional.—David Nelson, M.D.

Practical Pharmacy.—Messrs. White, Waller, and Cocherill were reported as qualified for a certificate; 3 very regular, 3 irregular.

Law Department.—In this department 14 students were reported to have attended the Professor's lectures.

SURGEONS AND CHEMICAL ANALYSES.—Several years ago, at the time when Tawell, the Quaker, was under examination for the murder of Sarah Hart at Salt Hill, an article was published in this journal, containing reasons why surgeons, not accustomed to make chemical analyses, should never undertake them in those important inquiries where charges of murder by poisoning depend so much on the medical and scientific evidence for their support or contradiction. A case has recently occurred at Eastwood, near Nottingham, which fully substantiates the views we then advocated. A married man having died under suspicious circumstances, an inquest was commenced on the 24th ultimo, and adjourned to the 26th for a *post-mortem* examination to be made. At the next meeting of the jury, a surgeon, named Smith, who had attended the deceased professionally, deposed, that, in conjunction with Mr. Wright, of Nottingham, he had made an analysis of the contents of the stomach, and, not having found traces of poison, he was of opinion that the deceased died from natural causes. Doubtless the matter would have ended here, but for two circumstances. Mr. Browne, a surgeon, of Eastwood, engaged by the friends of the dead man to analyse the contents of the stomach, obtained a portion of the œsophagus, and a small quantity of the fluid contents of the stomach, on which he and his brother operated in separate rooms. The result proved the presence of arsenic in large quantities. At the General Hospital at Nottingham, arsenic was also largely discovered in the fluid contents of the stomach of the deceased, and in consequence the widow of the deceased, and a young man, who is said to have been on very intimate terms with her, are committed for trial, charged with wilful murder. Had the inquiry rested on the evidence given by Mr. Smith, the purposes of justice would have been frustrated, and the persons charged with the murder allowed to escape. This case clearly shows the great impropriety of persons undertaking a duty for which, in all probability, their education never fitted them, and which their subsequent employments render them quite inadequate to perform. In the case under notice, had no further evidence been obtained than that of Mr. Smith, the result would have been the escape of criminals. But let the question be viewed in another light. It is not at all improbable that a surgeon whose education and knowledge did not enable him to discover the presence of arsenic when it existed in large quantities, might in another case commit the more grievous error of supposing that arsenic or some other poison was present when in reality none had been taken; thus endangering the life and reputation of an innocent individual. Chemical tests and experiments may form an agreeable relaxation from the toils and wearing fatigues of practice; but in all cases of criminal investigations, the experiments should be committed to the care and skill of the practised toxicologist. In this instance the assistance of Professor Taylor was ultimately obtained, when the presence of arsenic was credited, and he ascertained that such was really the case.

CHOLERA has re-appeared in Jamaica, in the Lonidas Bale district. Numerous deaths are reported.

CALIFORNIA.—A correspondent of the newspapers from California states, that diarrhœa, dysentery, and flux, are the most prevalent diseases in that country. Many are constantly so afflicted. Scurvy and rheumatism are also common, and there is a plant called the poison oak which is very annoying; upon its coming in contact with any part of the body it causes swellings, sores, or ulcers.

DEATHS *in the Metropolis for the week ending Saturday, April* 19, 1851.

Causes of Death.	April 12.				Sum of Two Weeks.
	0	15	60	All Ages	
All Causes	459	306	209	993	2044
Specified Causes	459	306	209	974	2290
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	162	29	16	217	1722
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	1	28	14	43	839
3. Tubercular Diseases.	78	94	6	148	2029
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	54	37	29	120	1158
5. Diseases of the Heart and Blood-vessels	5	24	12	41	299
6. Diseases of the Lungs, and of the other Organs of Respiration ...	67	49	53	171	1447
7. Diseases of the Stomach, Liver, and other Organs of Digestion ...	29	19	15	62	554
8. Diseases of the Kidneys, &c. ...	2	9	4	15	103
9. Childbirth, Diseases of the Uterus ...	...	5	3	8	106
10. Rheumatism, Diseases of the Bones, Joints, &c.	1	3	...	4	79
11. Diseases of the Skin, Cellular Tissue, &c.	1	...	1	2	9
12. Malformations	3	...	...	3	17
13. Premature Birth and Debility ...	26	1	...	27	203
14. Atrophy	18	1	1	20	141
15. Age	...	...	48	48	556
16. Sudden	...	...	...	...	100
17. Violence, Privation, Cold, and Intemperance	13	7	5	25	228
Causes not Specified	...	...	...	24	54

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1. Small-pox	18	Paralysis	22	Disease of Spleen	...
Measles	35	Delirium Tremens	2	8. Nephritis	2
Scarlatina	8	Chorea	...	Nephria or Bright's Disease	8
Hooping Cough	62	Epilepsy	10	Ischuria	...
Croup	11	Tetanus	1	Diabetes	...
Thrush	2	Insanity	1	Stone	...
Diarrhœa	12	Convulsions	39	Cystitis	...
Dysentery	3	Disease of Brain, &c.	12	Stricture of Urethra	2
Cholera	...	5. Pericarditis	3	Disease of Kidneys, &c.	8
Influenza	17	Aneurism	1	9. Paramenia	...
Purpura and Scurvy	...	Disease of Heart	37	Ovarian Dropsy	1
Ague	...	6. Laryngitis	2	Childbirth (see Metria)	1
Remittent Fever	3	Bronchitis	83	Disease of Uterus, &c.	6
Infantile Fever	...	Pleurisy	1	10. Arthritis	1
Typhus	37	Pneumonia	52	Rheumatism	2
Metria or Puerperal Fever	3	Asthma	19	Disease of Joints, &c.	1
Rheumatic Fever	3	Disease of Lungs, &c.	14	11. Carbuncle	...
Erysipelas	5	7. Teething	14	Phlegmon	...
Syphilis	3	Quinsey	2	Disease of Skin, &c.	2
Noma or Canker	...	Gastritis	4	17. Intemperance	...
Hydrophobia	...	Enteritis	5	Privation of Food	1
2. Hæmorrhage	3	Peritonitis	4	Want of Breast-milk	3
Dropsy	11	Ascites	2	Neglect	...
Abscess	...	Ulceration (of Intestines, &c.)	3	Cold	...
Ulcer	...	Hernia	2	Poison	1
Fistula	...	Ileus	5	Burns and Scalds	4
Mortification	4	Intussusception	...	Hanging, &c.	1
Cancer	21	Stricture of Intestinal Canal	1	Drowning	2
Gout	4	Disease of Stomach, &c.	3	Fractures	10
3. Scrofula	10	Disease of Pancreas	...	Wounds	1
Tabes Mesenterica	16	Hepatitis	4	Other Violence	2
Phthisis (or Consumption)	108	Jaundice	6	All Violence	21
Hydrocephalus	84	Disease of Liver	7		
4. Cephalitis	14				
Apoplexy	19				

BIRTHS AND DEATHS.

	Births.		Deaths.		Births over Deaths.	
Males	706	1425	554	998	152	427
Females	719		444		275	

The Deaths in the several Districts are as follow.—

Districts.	Population in 1841.	April 19, 1851.	Sum of Ten Weeks.
London	1948369	998	9344
West	301189	174	1889
North	376568	204	1858
Central	374199	182	1785
East	393067	194	1978
South	503346	244	2389

TO CORRESPONDENTS.

Anti-Homœopath.—The report must have originated with some envious person,—some jealous individual hopelessly aspiring to the fame and fortunes of the justly celebrated Professor, who holds so high a position both in the surgical world and public estimation. We do not for a moment believe that one who need not seek for practice even among the highest in the land, is in the habit of meeting Homœopaths in consultation, and thereby sanctioning their gross delusion. That he might have been called to operate upon a nobleman who had been under the care of a Homœopath is very likely. That he did operate is not less probable. There is not a surgeon in London or elsewhere who would not, if he could, do the same; nor do we see the slightest impropriety in so doing. But this is a very different matter from meeting in consultation men known to practice upon principles so utterly absurd and unphilosophical as those of the followers of Hahnemann. Homœopathy has not yet extended to the operating table or the lying-in chamber.

A Wrinkle for Advertising Surgeons.

[To the Editor of the Medical Times.]

Sir,—I observe that many gentlemen in the Profession are much more in the habit of advertising their works in the popular journals of the day than in the medical periodicals. I consequently infer that they are more anxious to address themselves to patients who may happen to labour under the maladies which form the subject of their lucubrations than to the Profession. I likewise observe that some of these gentlemen are connected with dispensaries. To such I therefore suggest, that they may equally obtain the notoriety they appear to desire by giving, or pretending to give, "Clinical Lectures" on the subjects they wish to have their names connected with, and then arrange with the resident officer attached to their institution, to collect, publish, and advertise them in his name. There is no necessity to state where, or before whom, the lectures were delivered. It will be sufficient to say: "A Clinical Lecture on ——, by ——, Esq., reported by Mr. ——, Resident Surgeon." The advantages of this mode of advertising must be obvious; as it is self-evident that all the desired publicity may be thereby attained, without the surgeon exactly taking rank among the advertising regular or irregular.

I am, &c. A Poor.

The supposed New Instruments for the Treatment of Stricture.

[To the Editor of the Medical Times.]

Sir,—Referring to the note which you appended to my communication, I beg to observe, that, in your desire to point a moral, you have, by assuming that I wish to claim an entire originality with respect to the instruments and treatment to which it related, supposed that which I neither intended nor desired. The best proof I can give of this, is to repeat here the substance of what I stated to Messrs. Weiss, when I first showed them my instruments, and subsequently repeated to Mr. Fergusson and others; namely, that the instruments were made so many years ago, and the subject so completely dismissed from my mind, that I could not recall the circumstances which induced me to try the treatment; but I had a vague impression that the idea might have been suggested to me by some French author,—I certainly did not obtain it from Mr. Child's book; for I have never read or even seen it. Besides, as far as I can learn from my instrument maker's accounts, the instruments must have been made before the year 1838. However, all I desired to prove was, that Mr. Thomas Wakley's treatment was not new, and having done this, I am perfectly willing that it should be taken for granted that I got the idea somewhere from somebody.

I am, &c.

2, Chandos-street. F. B. Courtenay.

We have received communications respecting the late publications of Mr. Thomas Wakley. It is cowardly in the extreme to attack any man anonymously, even although he may have laid himself open to animadversion. For such attacks this Journal shall never become the vehicle. We have already expressed our opinion that neither Mr. T. Wakley nor Mr. F. B. Courtenay has the slightest claim to originality in their treatment of permanent stricture. Let our Correspondents be equally open and candid, and place their names to any remarks they may be pleased to make upon the subject. In proof of the correctness of our opinion, a Correspondent further refers us to a paper on the catheter by Dr. M'Sweeny, in the "Edinburgh Medical and Surgical Journal," for January, 1819.

London Medical Society.

[To the Editor of the Medical Times.]

Sir,—Pray allow me to correct an error which has crept into your report of my concluding remark at the London Medical Society, April the 19th. I am made to say, that I adopt Dr. Beck's view of the paucity of the uterine nerves, in contradistinction to Dr. Lee's,—which is not the case. I merely stated that I had examined Dr. Beck's dissections of the uterine nerves some years ago, and that, notwithstanding the hostility he evinced towards me, I was glad of the opportunity then afforded me, to express my admiration for these dissections, and for the courage and perseverance he had shown in their prosecution. I also stated, that I rather leaned in feeling to the adoption of his views on the anatomy of the uterine nerves; but without, in any respect, accepting them as definitive.

I may now add, that I do not think that either I or any one else is justified in siding either with Dr. Lee or Dr. Beck, in the present state of the question. Both have received the highest scientific testimony that can be given in this country, to the value of their dissections—the medal of the Royal Society, although their dissections entirely neutralise each other. Indeed, I feel certain that I speak the sentiments of the Profession, when I state that further evidence is required, and that the great bulk of those even who have especially devoted their attention to the anatomy and pathology of the uterus, have suspended their judgment, and wait to form an opinion, for fresh dissections, carried out by some enlightened and impartial anatomist. In the meanwhile, as a pathologist, I myself am quite satisfied with the fact that the uterus possesses nerves, few or many, and that these nerves connect it intimately with both the sympathetic and cerebro-spinal nervous system.

I am, &c. Henry Bennet.

[To the Editor of the Medical Times.]

Sir,—I shall feel obliged by your allowing me to contradict a statement made by Dr. Henry Bennet, at the last meeting of the London Medical Society, which I should have done at the time had I been present.

From the report in your journal, it appears that that gentleman stated, or I should rather say alluded to, my having examined with the speculum "many hundred females who had no uterine disease." In reply to this observation, I can only express my surprise that any member of our Profession should make it, as I have already twice contradicted it—once previous to the confirmation of the minutes of the meeting, at which my paper was read, and again in the "Medical Gazette" of the 21st of February, of this year.

To avoid any further misstatements, I emphatically deny the truth of it.

The cases in which I used the speculum were, in the great majority, cases of uterine disease; but I derived no help from the employment of that instrument, either in their diagnosis or treatment.

This, in fact, is the gist of the paper which I had the honour of submitting to the fellows of the London Medical Society, and any misrepresentations after this, my third and last explanation, can only be looked upon as wilful.

I am, Sir, &c. R. Greenhalgh.

Can any of our Edinburgh friends inform us for what season Mr. Lee's *soirée* was postponed *sine die*?

Communications have been received from—

Dr. Stokes, of Dublin; Mr. Davies, of Oughterarde, Ireland; Cymru; M., of Belfast; Mr. Moore, of Queen's Hospital, Birmingham; Mr. Brown, of the Manchester Museum; Mr. Braid, of Manchester; Dr. Rigby, of Berkeley-square; Dr. S. T. Speer, of Cheltenham; An Enquirer about Glycerine; J. R., M.D., &c.; Dr. Robert Knox; Enquirer and Subscriber; A Subscriber of some Standing; E. C., of Bristol; Mr. Lett, Secretary to the Court of Examiners, Apothecaries' Hall, Dublin; Dubitous; Anti-Humbug; Dr. Parker, of the London Hospital; Dr. Radcliffe, of Henrietta-street; Mr. Blake, of Bossenden, Sussex; Anti-Homœopath; Mr. Henry Smith, of Caroline-street.

Our answers to many Correspondents, and several letters marked for publication, must stand over until next week.

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ORIGINAL LECTURES.

LECTURES
ON
DIGESTION, RESPIRATION, AND SECRETION,
GIVEN AT THE ROYAL INSTITUTION, TO THE MEMBERS, AND TO THE PUPILS OF ST. GEORGE'S HOSPITAL.

By H. BENCE JONES, M.D., F.R.S.,
Physician to St. George's Hospital.

(Continued from page 420.)

ON THE CHANGES WHICH NITROGENOUS ORGANIC SUBSTANCES CAN UNDERGO OUT OF THE BODY.

I have shown you, gentlemen, that many animals, as long as they are without mechanical means of dividing their food, find in milk the substances of which each of the different parts of their body is composed; and these substances exist in the milk in a state most capable of being finely divided by the chemical action which takes place in the body. The same animals, as soon as they are furnished with teeth, directly or indirectly obtain the same four classes of substances from grass or from corn which, by mechanical as well as by chemical action, they are then able to subdivide. Taking now these classes of substances that exist in food separately, I purpose bringing before you the chemical changes which they can undergo by means of the action of reagents out of the body; the changes which take place by the action of agents within the body can only thus be understood. I shall, in this lecture, take the nitrogenous class, and I shall show you some of the changes which the substances composing it can undergo out of the body, more particularly insisting on those changes which promote the fine division of the nitrogenous part of our food. In other words, the solution out of the body of the nitrogenous substances will form one subject of this lecture. But nitrogenous bodies not only pass into the body; but, after having served the purposes of life, again pass out of it; I shall, therefore, occupy your attention with those further changes which can be effected in the nitrogenous or albuminous compounds, in order that you may be able to understand the different forms in which this class of substances may ultimately be rejected from the body.

I will commence this lecture with a few words on the means of recognising this large class of substances. The mode by which you may recognise their presence I showed you on my lecture on grass. You may remember the action of caustic potash, or of caustic lime, with caustic soda upon grass, and that by means of these substances ammonia was evolved in plenty. This is a simple mode, by which we may show the presence of the nitrogen in the compound belonging to this class of substances, whether they be derived from the vegetable or from the animal kingdom. If a nitrogenous substance—the white of an egg for example—is treated with caustic potash, it gives off nitrogen in plenty as ammonia. But it does more. Most nitrogenous food not only contains nitrogen as a constituent, but sulphur also, which can be detected after the substance has been subjected to heat with caustic potash, or caustic soda. If I take this albumen, and heat it with very strong caustic potash, I get ammonia evolved in plenty, and sulphur is distinctly separated from the other elements. The test for discovering the presence of the sulphur is a very simple one. If I dilute with a little water a portion of the liquid that has been heated with caustic potash, then if there is sulphuret of potassium present, on the addition of a drop of acetate of lead, I shall have sulphuret of lead precipitated as a black deposit. You see it here. There is another very beautiful test for these albuminous compounds which I may also show you. If a portion of the white of an egg is taken, (I use this because it is the most convenient; any other albuminous compound would answer the purpose,) and is heated with very strong hydrochloric acid, a very beautiful reaction ensues. In the former experiment I might have asked you to observe, that very strong caustic potash not only acts upon the albumen in slightly decomposing it, but that it dissolves the albuminous substance. So, in the experiment I am about to show you, the hydrochloric acid has not only the power of slightly decomposing the albumen, but also of dissolving it, forming a distinct deep blue solution. Strong acids, then, and strong alkalies, dissolve albuminous substances without difficulty. The hydrochloric acid and the albumen being mixed, and then boiled, a remarkable change takes place. The edges assume a distinct pink colour, and in a few moments the albumen is dissolved; the liquid then becomes of an intense purple colour, and, on applying heat a little longer, an intense blue; after standing some time, it again assumes its former pink or claret colour. This is another reaction by which you can detect the presence of albuminous substances. I have shown you that these substances are soluble in strong alkalies and strong acids. This I shall have occasion to apply hereafter. I must also show you another beautiful test for albuminous substances. I have here the white of an egg dissolved in a little water. The fluid is acidulated by acetic acid; and then, on the addition of a drop of the ferro-prussiate of potash, if an albuminous substance is present, there will be a plentiful precipitate. A more delicate test still, by which a very small quantity of albumen can be detected, is that of adding sulphate of copper and liquor potassæ, which produce an intensely purple colour with albumen. This reaction is similar in appearance to that produced by the hydrochloric acid, but it differs from it altogether in other respects.

Such are some of the re-actions by which the presence of the nitrogenous class of bodies can be detected. If any of these nitrogenous bodies are oxidized, or burned, as far as possible very nearly the same products of combustion are obtained. The elements of these substances, when fully oxidized, give nearly the same results. Sulphur, when fully oxidized, becomes sulphuric acid; and phosphorus, when burned to the furthest degree, becomes phosphoric acid. Thus carbonic acid, sulphuric acid, phosphoric acid, and water, are the oxidized products of the combustion of these albuminous substances. You will remember that I brought before you, in my first lecture, carbonic acid, ammonia, water, sulphuric acid, and phosphoric acid, with the earths and alkalies, as constituting the food of plants; in fact, it is out of these substances that the albuminous substances are formed in plants, and therefore it is that they are re-produced when oxidation takes place. If grass or wheat is fully oxidized, the combustion furnishes the food of plants; and what is true of the whole plant is true of these albuminous and non-albuminous constituents. So also regarding the albuminous and non-albuminous substances existing in flesh and in milk; if fully oxidized, they give carbonic acid, ammonia, water, sulphuric acid, and phosphoric acid; and if there be a quantity of ash present, this also is given back in a high state of oxidation. The use I shall make of this will not appear until a late lecture; it is sufficient for me here to point out the fact as it actually occurs.

Thus, then, by combustion, you derive a knowledge not only of the composition of the albuminous substances; but you learn also the substances which may possibly be formed within the body by the furthest possible changes which can take place in those albuminous substances of which the body is composed. Before considering these ultimate changes, it would be well, first, to consider how these substances pass into the body, and what are the slightest changes which take

place in them for that purpose. If albuminous substances, when very finely divided, are treated by acids, and more particularly by hydrochloric acid, or acetic acid, after some hours a partial solution is effected, very different, however, from the solution which takes place in the stomach. I have before me some eggs which were reduced, this morning, to the finest possible state of subdivision, by being rubbed in a mortar; very weak hydrochloric acid (but stronger than that in the stomach) was added, and the eggs were then placed on a sand-bath at the temperature of 96°, and were not removed till half an hour ago. You will observe that the digestion, so to speak, is very far from being complete, by means of the acid alone, still some portion is dissolved; and you may remember that in my lecture on flesh I pointed out that flesh-fibre is more soluble in hydrochloric acid than the fibrine of the blood. It has been said that albuminous substances are dissolved, if treated with saline solutions; and it is said that common salt assists digestion. It does not assist the solution of the albuminous substances; on the contrary, if they have been hardened by being placed in salt, they are rendered more difficult of solution. A very interesting observation has been made, that venous fibrine of blood is soluble in nitrate of potash, while arterial fibrine is not. This is one means by which the two kinds of fibrine may be distinguished. This is not a fact which applies to the theory of digestion, but it is an interesting fact in itself, and worthy of being brought before you. Venous fibrine in this flask is partially dissolved in a solution of nitrate of potash, and it can be detected by the means I have shown you. It can be precipitated by heat and acids, and will exhibit those beautiful colours which you have seen, by the hydrochloric acid, or by sulphate of copper and liquor potassæ.

As regards the action of mineral acids, it is not improbable that they effect some slight change in the composition of albuminous substances in dissolving them; but we have no certain knowledge on this subject. When these albuminous substances are treated continuously with caustic alkalies, they undergo slight changes—the changes which I have already shown you. The greater part of the phosphorus and sulphur is removed; and it was thought by Professor Mülder, of Utrecht, that all these albuminous substances, when treated with caustic potash, gave the same results.

Albumen dissolved in caustic alkali, as you have seen, is precipitated by acetic acid, and this precipitate, Professor Mülder thought, was always the same, whatever was the source of the albuminous substances. He considered that the precipitate consisted of a substance which contained all the elements which compose the albuminous substances, with the exception of the sulphur and the phosphorus. These being absent, he called the new substance protein, because he thought it formed the different albuminous substances simply by the addition of different quantities of sulphur and phosphorus. This was a beautiful theory,—a beautiful means of retaining the composition of these substances in the mind; nothing could be simpler, they all consisted of protein as a definite principle, with variable quantities of sulphur and phosphorus. Such were the facts he attempted to establish by analysis; but late observations have not confirmed his theory; on the contrary, it is found that you may treat albumen as long as you please with caustic potash, and you never can separate all the sulphur from it; there is always a certain quantity of sulphur present with the protein, which cannot be separated by any chemical action whatever. When Professor Mülder found out that this was the fact, which Professor Liebig pointed out, and not in the gentlest way, Professor Mülder made an addition to his theory—he stated that part of the sulphur existed in a different state, not entering into the constitution of the protein, but being combined with it, not as compounds of sulphur and phosphorus with the elements of protein, but as more complex compounds of sulphuramide and phosphoramide with protein. I may remind you that an amide contains one equivalent of hydrogen less than ammonia. He assumed that part of the sulphur and phosphorus was present, not in the protein itself, but as additional combinations with the organic elements which constituted protein. This may be a very pretty way of trying to explain this fact, but we do not know of any such amides existing. That such a substance as protein, free from all sulphur, exists, Professor Liebig denies, and those who have worked most on this subject agree with him. Still, we may take this fact as arising out of these beautiful—for they were beautiful—investigations of Professor Mülder, that all these bodies are very closely related to one another. We may conclude, also, that the use of the word protein had better be given up, as it implies a theory not based on fact. Instead of speaking of these bodies as protein compounds, you will find that I shall term them albuminous bodies. Here is Professor Mülder's complex formula for albumen, and the supposed formula for protein:—

Albumen $20\,(C_{36}H_{25}N_4O_{10} + 2HO) + 8H_2NS + H_2NP$.
Protein . . $C_{36}H_{25}N_4O_{10} + 2HO$

It is difficult to name any of these uncrystallizable substances, of which the definite composition can be accurately determined. It is tolerably easy to obtain the proportion of the elements,—the proportion of the bricks and mortar in the house,—but the actual quantity constituting the organic element or the equivalent of albumen for example can scarcely be determined. Being uncrystallizable, it cannot be obtained in a state which renders it most fitted for the determination of the equivalent, or combining number,—the number of atoms congregated together to form one atom of the albuminous principle. Though a substance free from sulphur cannot be obtained, yet the action which Mülder showed that caustic potash has on albumen is a very important one, because we see in it one of the first changes which the albuminous substances can undergo; and we, at least, learn the close relationship which subsists between the different substances which compose this class of compounds. If, instead of a moderately strong solution of alkali, I use strong potassa fusa, and fuse with it the powdered white of an egg, for instance, to the last degree, as long as any ammonia is given off, I get a very different substance from that which would be obtained from treating it with dilute solution of caustic potash. The action is more energetic and destructive. (Experiment.) If I take albumen, fibrine, or casein, and when they are dried mix them with an equal weight of hydrate of potash, and fuse them until hydrogen begins to escape with the ammonia, or until the dark brown colour which was at first present changes to yellow, I get, when the fused mass is dissolved in warm water, and supersaturated with acetic acid, a beautiful substance precipitated, of which I have a specimen here, which I am enabled to show you through the kindness of Professor Liebig. It is a crystalline body, known by the name of *Tyrosin*. It is also found that, when this body has been separated by acetic acid from the mother liquor, another substance crystallizes out and may be purified by re-crystallization from alcohol. It is known by the name of *leucin*, and here is a specimen of it. The relation of these substances is best seen by their formulæ.

Tyrosin . .	C_{18}	H_9	N	O_6
Leucin . .	C_{12}	H_8	N	O_4

The leucin forms more readily by fusion than the tyrosin; for, if the fusion is stopped too soon, leucin only is formed. The tyrosin appears to be formed by further action on the leucin. I point out this re-action to show you how crystalline bodies, containing carbon, hydrogen, oxygen, and nitrogen, can be obtained from albuminous substances by actions out of the body, by caustic potash, by oxidising actions, &c. Though these substances are not identical with those crystalline substances which are formed in the human body, namely, uric acid and urea, yet they bear a distant relation to them; and the relation is at any rate worth noting, because the artificial production of uric acid or urea from albumen out of the body is much to be desired. If one of these bodies, leucin, is melted with fused potash, *valerianate of potash*, with carbonic acid, hydrogen, and ammonia, are formed.

$$\left.\begin{array}{l}\text{Leucin} + \text{Potash}\\ C_{12}H_{13}NO_4 + 3KO + 3HO\end{array}\right\} = \left\{\begin{array}{l}\text{Carb. Potash. Ammon. Hydrogen}\\ 2CO_2\ \ KO\ \ NH_3\ \ 4H\\ + \text{Valerianate of Potash}\\ C_{10}H_9\ \ O_3\ \ KO\end{array}\right.$$

This valerianic acid can be formed directly from albumen without passing through the stage of leucin or tyrosin. But, you will say, no action can take place in the body similar to these energetic actions of caustic potash. But this is not the fact: the action of decomposition is precisely similar to the action of caustic potash. If a pure solution of leucin is mixed with a little flesh water, or with albumen or casein, and left to decompose, the change represented above occurs. If a solution of casein, perfectly free from fatty matter, is left to decompose, to undergo slow changes by the slow action of the air and putrefaction, it gives off first carbonate and hydrosulphuret of ammonia; afterwards,

between the second and fifth month, ammonia, valerianic acid, butyric acid, and leucin; also an acid which gives tyrosin and ammonia. So, also, if I take fibrine, and leave it to be decomposed in the air, if water is present it becomes dissolved; it becomes coagulable by heat, it attracts oxygen, gives off gradually ammonia, carbonic acid, butyric acid, and sulphuretted hydrogen, and leaves leucin and tyrosin by the simple action of decomposition, without any stronger agent than the mere molecular changes which take place in putrefaction. If, instead of taking cautic potash, I take oxidising agents,—if I take, for instance, chromic acid, or peroxide of manganese and sulphuric acid, which give up oxygen easily, most beautiful results can be obtained. It is found, if albumen is thus treated, it gives rise to acetic acid, benzoic acid, bitter almond oil, butyric acid, and valerianic acid. Fibrine gives rise also to acetic acid and benzoic acid rather less in quantity than albumen, and more butyric acid than any other albuminous compound of which I have spoken. Casein gives more acetic acid, benzoic acid, and bitter almond oil, than fibrine; but less valerianic and butyric acids. It more nearly resembles albumen in the products of its decomposition than fibrine. All the vegetable albuminous bodies, when oxidised by chromic acid, or by peroxide of manganese and sulphuric acid, give similar results.

Thus much regarding the changes which take place out of the body, on these albuminous substances. But there is one other substance, of which I must mention the changes which can be effected upon it out of the body, in order that you may understand the changes which take place in the body—*isinglass*, or gelatine. If this body is burned, it gives carbon, oxygen, hydrogen, nitrogen; but no sulphur or phosphorus.

Gelatine.

C	500	=	C_{18}	H_{10}	O_5 N_2
H	65				
O	251				
N	184				
	1000				

Protein with oxygen contains the same elements as gelatine, ammonia, carbonic acid, and water. If I take Professor Liebig's formula for protein, the relation of protein to gelatine may be represented thus:—

Formation of Gelatine.

Protein	C_{40} H_{31} N_5 O_{12}	2 Gelatine	C_{36}	H_{20}	N_4 O_{10}
+	O_{34}	Ammonia		H_3	N
		14 Carb. acid	C_{14}	.	O_{28}
		8 Water		H_8	O_8
			C_{40}	H_{31}	N_5 O_{46}

If this gelatine is long boiled with caustic potash, as long as ammonia escapes, the result is the formation of glycocol, or sugar of gelatine and leucin. The alkaline fluid is neutralised by sulphuric acid, evaporated to dryness, dissolved in alcohol, and this beautiful substance, named *glycocol*, crystallizes out. It is a far simpler body than the gelatine out of which it was formed. The relation of glycocol to the processes which take place in the body I shall have full occasion to dwell upon in my lecture on the bile. I may mention here, that the substance known as hippuric acid may be obtained from the urine, by giving a man benzoic acid; this benzoic acid undergoes a change in the body, and passes out as hippuric acid. This change was first detected by Mr. Ure. If, out of the body, I take one part of hippuric acid, and boil it for half an hour with four parts of strong hydrochloric acid, —a simple experiment,—we find that it divides into benzoic acid and glycocol, and, on the addition of water, benzoic acid is precipitated, the filtered fluid is evaporated to dryness, the hydrochlorate of glycocol is decomposed by caustic ammonia, and the glycocol is precipitated by absolute alcohol; thus I can get this glycocol, or gelatine of sugar, out of hippuric acid in any quantity I please.

Hippuric acid	=	Benzoic acid	+	Glycocol.
C_{18} H_8 NO_5 + HO	=	C_{14} H_5 O_2	+ O +	C_4 H_4 N O_4

In evaporating horse urine, if the temperature is too high, you get no trace whatever of hippuric acid, but you get benzoic acid in plenty, and you will then find that gelatine sugar is present also. The reverse occurs within the body; the benzoic acid somewhere within finds the glycocol, and these combine and pass out as hippuric acid. This is a most important fact, and you will see the value of it when I speak of glycocol as existing in the bile. If the gelatine is oxidised by chromic acid or by peroxide of manganese, it gives nearly the same products as are given in the case of albumen or fibrine, less benzoic and acetic acid, and oil of bitter-almonds, but more valerianic acid than fibrine gives when treated in the same way.

In concluding these instances of changes occuring in the albuminous substances by actions taking place out of the body, I will take the action of synaptase on amygdalin, because it will illustrate what I have to say in a future lecture. *Synaptase* is a yellowish-white, opaque, brittle mass, very soluble in water, and coagulable, like albumen, by heat. It rapidly putrefies. It exists in the emulsion of sweet almonds, and may be considered as vegetable albumen. *Amygdalin* is a substance procured from bitter almonds by boiling alcohol. This amygdalin is a nitrogenous body—

Amygdalin.

			Liebig and Wohler.
Nitrogen	1	14	3·10
Carbon	40	240	52·50
Hydrogen	27	27	45·99
Oxygen	22	176	38·41
	1	457	100·00

and has no smell at all. If I take a sweet almond and beat it up in a mortar so as to make an emulsion of it, and then rub it until it is finely divided, and afterwards mix a little of this amygdalin with it, I shall have a perceptible change taking place,—a decided action of the albuminous substance on the amygdalin. I will dwell for a few moments upon this action, for, if I can make it plain to you, you will far more readily understand what I have to say on the digestive principles. I have here some of this amygdalin, having, as I said, no smell whatever, and I mix it with emulsion or synaptase, which also possesses no smell of the bitter-almond oil. If they are boiled separately, no smell of the bitter almond will be perceived from either; but, if I boil them together, an action ensues, and almost immediately the odour of bitter-almond oil is developed in a considerable quantity; and not only so, but other substances are formed by the change that the emulsin or synaptase produces upon the amygdalin.

Amygdalin converted by Contact of Emulsin and Water into

	Nitrogen.	Carbon.	Hydrogen.	Oxygen.
1. Hydrocyanic acid	1	2	1	..
2. Bitter-almond oil	..	28	12	4
1. Sugar	..	6	7	4
2. Formic acid	..	4	2	6
5. Water	..	..	5	5
Amygdalin =	1	40	27	22

All the substances mentioned in the diagram I could detect, and show you that they were actually present, if time permitted. For example, if I carry this experiment a little further, I may get prussic acid. The mode of examination for prussic acid is this:—The vapour obtained by distillation is dissolved in water, and a drop of proto-salt of iron is added, with a little caustic potash. The whole is agitated in the air for a few moments, after which, by the addition of hydrochloric acid, the excess of iron that is precipitated is dissolved, and a beautiful Prussian blue is produced.

Thus I have brought before you instances of the changes which can be produced in the most highly complex compounds out of the body by chemical actions. In every instance simple bodies are formed out of the more complex compounds. In the formation of protein, we see the first decided and least advanced change. In the action of stronger alkalies, or by decomposition, we see many more simple bodies formed out of the complex albumen,—carbonate of ammonia, hydrosulphate of ammonia, valerianic acid, butyric acid, leucin and tyrosin. By partial oxidation we get simpler bodies still,—acetic acid, benzoic acid, bitter almond oil, butyric acid, valerianic acid. By extreme oxidation we get the simplest bodies, carbonic acid, ammonia, water, sulphuric and phosphoric acids. In my next lecture I shall show you some of the changes which can take place in the non-nitrogenous organic substances by the action of the same agents out of the body.

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LECTURES ON PUBLIC HEALTH.

ADDRESSED TO THE STUDENTS OF THE THEOLOGICAL DEPARTMENT OF KING'S COLLEGE.

By WILLIAM A. GUY, M.B. Cantab.,

Dean of the Medical Department of King's College, Professor of Forensic Medicine, and Physician to King's College Hospital, &c.

(Continued from page 399.)

Contents.—State of Prisons in Howard's Time.—Scanty Supply of the First Necessaries of Life, Air and Water.—Operation of the Window-tax.—Damp and Offensive State of the Prisons.—Want of Bedding to lie on. Unwholesome Food.—Overcrowding.—Facilities for Intemperance.—Immorality.—Use of the Torture.—Many Prisons the Property of Dignitaries of the Church and Men of Rank.—Account of certain Prisons and Bridewells.—The Present State of our Inhabited Cellars, Low Lodging-houses, Union Workhouses, and Cottages of the Poor in Rural Districts, very similar to that of the Prisons and Bridewells in 1774.—Prevalence of the Gaol Fever and Small-pox in the Prisons.—Frightful Mortality from Gaol Fever.—Black Assizes at Oxford.—Bills of Mortality.—Parish Infection.—Spread of the Gaol Fever among the surrounding Population, and among Soldiers and Sailors.—Testimony of Dr. Lind.—Contrasts of the Present and Past State of Prisons.—Analysis of the Act for Preserving the Health of Prisoners and Preventing the Gaol Distemper.—Provisions of the Act often Infringed—Abatement of the Gaol Fever.—Character of John Howard.—Remarks on the Discoveries of Howard, Cook, and Jenner.

In to-day's lecture, I resume the subject of the gaol fever, and shall give you, according to promise, some account of the state of prisons in Howard's time. It is an instructive history, for it shows how much injustice may be perpetrated, and how much disease may be generated, in the midst of society, and yet a nation remain ignorant of it, till it pleases God to put it into the heart of some great man, raised up for that purpose, to search out and reveal the truth. The results of Howard's inquiries will be found detailed in his great work on prisons. I will quote some of them under distinct heads:—

"Many prisons," he says, "are scantily supplied, and some almost totally unprovided, with the necessaries of life." "Many prisons have *no* WATER;" "in some places, where there is water, prisoners are always locked up within doors, and have no more than the keeper or his servants think fit to bring them; in one place they were limited to three pints a day each,—a scanty provision for drink and cleanliness!" "And as to AIR, which is no less necessary, and given us by Providence quite *gratis*, without any care or labour of our own, yet, as if the bounteous goodness of Heaven excited our envy, methods are contrived to rob prisoners of this *genuine cordial of life*, as Dr. Hales very properly calls it; I mean, by preventing that circulation and change of the salutiferous fluid, without which animals cannot live and thrive." "My reader," he goes on to say, "will judge of its malignity," (that of the air of gaols,) "when I assure him, that my clothes were, in my *first* journeys, so offensive, that, in a post-chaise, I could not bear the windows drawn up, and was, therefore, often obliged to travel on horseback. The leaves of my memorandum-book were often so tainted, that I could not use it till after spreading it an hour or two before the fire; and even my antidote, a phial of vinegar, has, after using it in a few prisons, become intolerably disagreeable." He adds: "Many gaolers made excuses, and did not go with me into the felons' wards." The supply of LIGHT was not more liberal than that of *air* and *water*,—a circumstance which Howard accounts for in these words:—"One cause why the rooms in some prisons are so close is, perhaps, the *Window-tax* which the gaolers have to pay; this tempts them to stop the windows, and stifle their prisoners,"—thus excluding, at the same time, both light and air.

The accommodation afforded to the poor prisoners was such as the description I have just given you would lead us to expect. They literally *rotted* in "close rooms, cells, and subterranean dungeons," of which the following is no exaggerated description:—"In some of these caverns the floor is very damp; in others, there is sometimes an inch or two of water; and the straw, or bedding, is laid on such floors, seldom on barrack bedsteads. Where prisoners are not kept in underground cells, they are often confined to their rooms, because there is no court belonging to the prison." "Some gaols have no *sewers*," (Howard evidently uses this term *sewer* to designate conveniences both for the reception and discharge of offensive refuse matter,) "and in those that have, if they be not properly attended to, they are, even to a visitant, offensive beyond expression." "In many gaols, and in most bridewells, there is no allowance of bedding or straw for prisoners to sleep on; and if by any means they get a little, it is not changed for months together, so that it is almost worn to dust. Some lie upon rags, others upon the bare floors. When I have complained of this to the keepers, their justification has been, 'the county allows no straw; the prisoners have none but at my cost.'"

Then as to *food*:—it may be stated, in few words, that the greater number of prisoners were half-starved. Howard, indeed, tells us, that in above half the *county gaols* the "debtors have no bread, although it is granted to the highwayman, the housebreaker, and the murderer; and medical assistance, which is provided for the latter, is withheld from the former." But, though wholesome food and necessary medicine were withheld from the poor debtor, he had every facility, within the walls of the prison, of procuring as much poison, in the shape of spirituous liquors, as he could contrive to earn or purchase. And it was a well-known fact, that the contributions of the charitable, in most prisons, were expended in this way; so that in this matter, too, the old prison community, and the modern beggar and pauper community, closely resemble each other. Now, as then, a great part of the contributions of the charitable is expended in these vicious and demoralising indulgences.

This picture of squalid wretchedness admits still of some heightening touches. The prisoners, like the poor Vicar of Wakefield, were allowed to have their families about them, thus adding overcrowding to the other physical evils of their condition. Thus, Howard tells us, that "debtors *crowd* the gaols (especially those in London) with their *wives* and *children*. There are often, by this means, ten or twelve people in a middle-sized room; increasing the danger of infection, and corrupting the morals of the children." Elsewhere Howard complains of "the confining all sorts of prisoners together, debtors and felons, men and women; the young beginner and the old offender;" and again, of "the number of men in the same room, and of lewd women, admitted under the name of wives;" and again, of lunatics at large in some prisons, disturbing and terrifying the other prisoners. All these evils and abuses were carried to an extreme in those gaols which were *private property*, the keepers being protected by the proprietors, and being less subject than other gaolers to the control of the magistrates. One of these private gaols, Howard tells us, "was quite out of repair and unsafe; and the proprietor not choosing to repair it, the gaoler, to confine his prisoners, took a method that, to all who saw it, was really shocking." Some years before that, a prisoner in another of these gaols, was tormented with thumb-screws. The grand jury (Howard's informant, was one of them) took up the case, and remonstrated with the proprietor, but in vain.

In speaking of the prison of Ely, Howard says:—"This gaol, the property of the bishop, who is lord of the franchise of the Isle of Ely, was in part rebuilt by the late bishop, about fourteen years ago; upon complaint of the cruel method which, for want of a safe gaol, the keeper took to secure his prisoners. This was by chaining them down on their backs upon a floor, across which were several iron bars; with an iron collar with spikes about their necks, and a heavy iron bar over their legs. An excellent magistrate, James Collyer, Esq., presented an account of the case, accompanied with a drawing, to the King; with which His Majesty was much affected, and gave immediate orders for a proper inquiry and redress."

A regard to truth and to utility (for I have a special object in view) compels me to add, that some of the worst conditioned gaols were the property of noblemen and dignitaries in the Church. Among the noble, reverend, and right reverend proprietors, we find the names of the Dean and Chapter of Westminster, Lord Salisbury, the Duke of Portland, Lord Exeter, Christ Church College Oxford, the Bishop of Salisbury, the Bishop of Ely, Lord Arundel, the Marquess of Caernarvon, the Duke of Devonshire, the Duke of Norfolk, the Duke of Leeds, the Bishop of Durham, Lord Derby, and the Earl of Cholmondeley.

I will now give you one or two detailed descriptions of prisons and bridewells from the pen of Howard:—

Dartford County Bridewell.—"No chimneys; offensive sewers; and the rooms dirty; no water; no straw; no

court." "The keeper told me, they had, about two years ago, a bad fever, which himself and family and every fresh prisoner caught. Two died of it."

Cambridge Town Bridewell.—"In the spring of 1779, seventeen women were confined in the day time, and some of them at night, in a room nineteen feet square, which has no fire-place or sewer. This made it extremely offensive, and occasioned a fever or sickness among them, which alarmed the Vice-Chancellor, who ordered all of them to be discharged. Two or three died within a few days."

Marlborough County Bridewell.—"All these rooms are on the ground-floor; and, by a sewer within doors, they are made very offensive, especially the man's night-room, in which, when I was there first, I saw one dying on the floor of gaol-fever. The keeper told me that, just before, one had died there, and another soon after his discharge."

One quotation more.

County Gaol, Launceston.—"The prison is a room or passage 23½ feet by 7½, with only one window 2 feet by 1¼, and three dungeons or cages on the side opposite the window; these are about 6½ feet deep; one 9 feet long, one about 8, one not 5,—this last for women. They are all very offensive; no chimney, no water, no sewers, damp earth floors, no infirmary; the court not secure, and prisoners seldom permitted to go out to it. Indeed, the whole prison is out of repair, and yet the gaoler lives distant. I once found the prisoners chained two or three together. Their provision was put down to them through a hole (9 inches by 8) in the floor of the room above (used as a chapel); and those who served them there often caught the gaol fever. At my first visit I found the keeper, his assistant, and all the prisoners but one, sick of it; and heard that, a few years before, many prisoners had died of it, and the keeper and his wife, in one night."

In my next lecture, I shall be able to prove to you, that what the prisons of 1774 were, the cellars, low lodging-houses, union workhouses (in some cases at least), and many of the rural cottages of the poor now are; and that, as the prisons and bridewells had their gaol-fever, bred and nursed in filth and foulness, so these neglected dwellings and public establishments of our own day have their typhus fever, due to the same causes.

Let me now call your attention to some of the leading facts connected with this *gaol fever*. In reading Howard's work on prisons we continually encounter such descriptions as those which I have read to you, coupled with statements that the gaol fever, either at the time of his visit or at some previous period, had prevailed among the prisoners, and had extended to the gaoler and his family. He tells us that, in his examination of houses of correction, and of city, town, and county gaols, he beheld a complication of distress; but that his attention was principally fixed by the *gaol fever* and the *small-pox*, which he saw prevailing to the destruction of multitudes,—not only of felons in their dungeons, but of debtors also. He says elsewhere, "the sallow, meagre countenances declare, without words, that they are very miserable. Many who went in healthy are, in a few months, changed to emaciated, dejected objects. Some are seen pining under diseases, 'sick and in prison,' expiring on the floor in loathsome cells of pestilential fevers and the confluent small-pox."

Of this gaol fever we have some very early notices. It was evidently no new disease in Howard's time. Thus it is mentioned in Stow's Survey, "that in the year 1414, the gaolers of Newgate and Ludgate died, and prisoners in Newgate to the number of 64;" and that in the King's Bench Prison, in the six years preceding 1579, 100 prisoners died there, and 12 between Michaelmas and March of the last-mentioned year, through a certain contagion called the *sickness of the house*. It was two years before the last period mentioned by Stow, namely, in 1577, that the famous black assize was held in Oxford Castle; on which occasion "all who were present died within forty hours, the Lord Chief Baron, Sheriff, and about 300 more." Lord Bacon and Dr. Mead agree in opinion that the disease was brought into court by the prisoners. Lord Bacon states, that "the most pernicious infection, next the plague, is the smell of the gaol when the prisoners have been long, and close, and nastily kept; whereof we have had, in our time, experience twice or thrice; when both the judges that sat upon the bench, and numbers of those who attended the business, or were present, sickened upon it and died." To come down to a later period:—Less than fifty years before Howard's time a similar occurrence is reported as having taken place at Taunton. I will give it you in Howard's words:—"At the Lent Assizes, in Taunton, in 1730, some prisoners, who were brought thither from Joelchester Gaol, infected the court; and Lord Chief Baron Pengelly, Sir James Sheppard, sergeant; John Pigot, Esq., sheriff, and some hundreds besides died of the gaol distemper." To come down to a still later period,—"At Axminster, a little town in Devonshire, a prisoner, discharged from Exeter Gaol in 1755, infected his family with that disease; of which two of them died, and many others in that town afterwards. The numbers that were carried off by the same malady, 1750,—two judges, the Lord Mayor, one alderman, and many of inferior rank, are too well known to need the mentioning further particulars."

On referring to the bills of mortality, I think that I find evidence of the existence of gaol fever among the paupers of the seventeenth century; for, in the interval between 1606 and 1665, during which the deaths from plague are distinctly and separately recorded to the amount of no less than 148,326 in eighteen years, there is also an entry made of a disease designated as *parish infection*, which proved fatal to from 434 persons, (the least number in any year,) to 2317, (the greatest recorded number;) the total being 17,928, and the average 996. As the average from the plague for the same years was 8240, this parish infection claimed little less than an eighth of the number of its victims. The very name, *parish infection*, seems to prove that it was a contagious fever; and if so, probably no other than the gaol fever of Howard's day. It is very far from improbable that a disease which, as I shall presently show you, spread from our prisons to our barracks and ships, also communicated itself to the poor inhabitants of our crowded cities. I will give you a case in point in which the gaol fever spread in a most destructive manner among the inhabitants of a village to which it was conveyed by the wife of a discharged debtor. The case is given by Mr. Field, the Chaplain of the Reading County Gaol, from the diary of the Rev. T. Scott. It occurred in 1780.

"A baker," residing at Stoke, in Buckinghamshire, "allowed a poor man, his customer, with a large family, to run into his debt to the amount of 10*l.*, and then arrested him for the money, foolishly supposing the overseers would pay it rather than suffer the man to be thrown into prison. They of course disappointed his expectation. The debtor was sent to Aylesbury Gaol, where the gaol fever then prevailed. He took that dire disease; his wife went to see and nurse him; he died; she returned home, sickened, and died. The malady spread in the village, sparing the children, but proving fatal to the parents." "I believe forty children had been bereft of one parent, and nearly twenty of both." "The same fever had broken out at Northampton as well as at Aylesbury." (Vol. I. p. 22.)

Of the prevalence of gaol fever among soldiers and sailors we have many examples. Sir John Pringle, for instance, tells us, that "gaols have often been the cause of malignant fevers;" and that in the rebellion in Scotland "above two hundred men of one regiment were infected with the gaol fever by some deserters brought from prisons in England." To the same effect is the evidence of Dr. Lind as to the importation of the gaol distemper into our fleets. Howard states that Dr. Lind showed him, in one of the wards of Haslar Hospital, "a number of sailors ill of the gaol fever, brought on board their ship by a man who had been discharged from a prison in London." And the same authority, in his work on the "Health of Seamen," asserts, that "the sources of infection to our armies and fleets are undoubtedly the gaols. We can often trace the importers of it directly from them. It often proves fatal in impressing men on the hasty equipment of a fleet. The first English fleet sent last war to America, lost by it above 2000 men;" and he elsewhere assures us that the seeds of infection were carried from the guard-ships into our squadrons; and that the mortality thence occasioned was greater than by all other diseases or means of death put together." Howard shall finish for us this painful history. He says, "From my own observations in 1773 and 1774, I was fully convinced that many more were destroyed by it (the gaol fever), than were put to death by all the public executions in the kingdom." Those, be it recollected, were times in which the punishment of death flourished in all its vigorous enormity, the annual executions in London alone, in the ten years 1770-79, having averaged 16.

Such was the gaol fever, or gaol distemper of the last

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century, a disease at that time, as we gather from Howard, peculiar to England, as was the filth and squalor by which it was accompanied and fostered peculiar to the prisons of England. That disease, as we all know, no longer exists, having disappeared with its unseemly and disgusting accompaniments. Even typhus fever, which, as I shall show you in my next lecture, haunts houses and buildings in a similar state of filth and squalor to that which disgraced our gaols, is of very rare occurrence within the walls of our prisons in the present day. If it gains admission it does not spread, simply because, for the last three quarters of a century, we have been doing for our prisons what we have not yet begun to do for our houses,—supplying them more and more liberally with the simple appliances of health, good food, warm clothing, pure air, abundance of water, plenty of light, and a strict *surveillance*, insuring the most scrupulous cleanliness.

The preamble of the Act for preserving the health of prisoners and preventing the gaol distemper, which was passed in 1774, on the representations of Howard, sets forth, that "the malignant fever, that is commonly called the gaol distemper, is found to be owing to a want of cleanliness and fresh air in the several gaols in England and Wales;" and, accordingly, authorises and requires justices of the peace in quarter sessions assembled to order the walls and ceilings of the several cells and wards, both of the debtors and the felons, and also of any other rooms used by the prisoners in their respective gaols and prisons where felons are usually confined, to be scraped and whitewashed once in the year at least; to be regularly washed and kept clean, and constantly supplied with fresh air by means of hand ventilators or others; to order two rooms in each gaol or prison, one for the men and the other for the women, to be set apart for the sick prisoners, directing them to be removed into such rooms as soon as they shall be seized with any disorder, and kept separate from those who shall be in health; to order a warm and cold bath, or commodious bathing-tubs, to be provided in each gaol or prison, and to direct the prisoners to be washed in such warm or cold baths or bathing-tubs, according to the condition in which they shall be at the time, before they are suffered to go out of such gaols upon any occasion whatever; to order this Act to be painted in large and legible characters upon a board, and hung up in some conspicuous part of each of the said gaols or prisons; and to appoint an experienced surgeon or apothecary, at a stated salary, to attend each gaol or prison respectively, who shall report to the said justices by whom he is appointed, at each quarter sessions, a state of the health of the prisoners under his care or superintendence. The Justices of the Peace were also authorised by the Act, to direct the several courts of justice within their respective jurisdictions to be properly ventilated; to order clothes to be provided for the prisoners when they see occasion; to prevent the prisoners from being kept under ground, whenever they can do so conveniently; and to make such other orders from time to time for preserving or restoring the health of prisoners as they shall think necessary. The Act further imposes fines for non-obedience to its provisions.

This Act, as you will observe, has many of the properties of sound legislation. It is concise and clear, prescribes what is to be done, insures the requisite publicity, appoints skilful officers, requires periodical reports, constitutes a body of inspectors, and provides a summary punishment for the infringement of its own provisions. Though, as we learn from Howard, the provisions of this Act were, in many instances, very negligently carried out, especially that which requires the Act itself to be painted in large and legible characters on a board and suspended in some conspicuous part of the prison, (I have made a rough calculation of the number of prisons in which the law had been strictly obeyed, and of those in which some of its leading provisions had been openly set at naught, within a few years of its enactment, and I find that the first class were to the second as about 15 to 130.) Though the Act was but imperfectly obeyed, yet much good was immediately effected, and a commencement made in that course of sanitary reform, which has not only banished the gaol-fever from our prisons, but has placed them at the present day, as far as sanitary precautions are concerned, among the healthiest of the abodes of men. I say *as far as sanitary precautions are concerned*, because the constrained idleness of prisoners in some gaols, and their enforced solitude in others, doubtless tend to shorten life, and to counteract, to a great extent, the beneficial effects of the wholesome appliances of all sorts by which they are surrounded.

Thus, through the exertions of one indefatigable philanthropist, was the poor prisoner freed from those bonds of physical corruption in which, for no fault of its own, the whole working population of England now groans. It is not very creditable to our common sense or to our feeling of justice, that in this most important matter the prisoner should have been allowed to gain a start of three-quarters of a century over his honest and industrious fellow-countrymen. With this Act in their hands, the working-classes, whose habitations are now what prisons were in 1774, may prefer an irresistible claim to that sanitary reform so long talked of but so slow in coming.

I will give you one or two cases from Howard's work on prisons, to show that, within five years of the passing of the Act to which I have just referred, the gaol fever had already been banished from some of our prisons.

Speaking of the County Bridewell at Cowbridge, Glamorganshire, in 1779, Howard says: "Besides the old room, there are two rooms lately built in the back court, each fifteen feet square. In them provision is made for the circulation of air, for, besides the windows, there are five apertures of about a foot diameter in each room, and there is now little danger of the gaol-fever, of which; the keeper told me at my first visit, many had died—a man and woman about a year before, when himself and his daughter were also ill of it."

Again, speaking of the County Gaol, at Bedford, Howard says:—"About twenty years ago the gaol fever was in this prison. Some died there, and many in the town; among whom was Mr. Daniel, the surgeon, who attended the prisoners. His successor, Mr. Gadsby, judiciously changed the medicines from sudorifics, (generally used before,) to bark and cordials; and a sail ventilator being soon after put up, the gaol has been free from the fever almost ever since."

The following passages are interesting partly as showing the great fatality of the gaol distemper at a period anterior to the passing of the Act referred to, and partly as justifying the inference that the measures resorted to had been successful in mitigating or removing it.

This gaol (the County Gaol at Winchester) is kept very clean, and the alterations in it are improvements. The present dungeon, 48 feet by 23, is down but five steps; it is boarded, and has three large windows. The former destructive dungeon was darker, and down eleven steps. Mr. Lipscombe informed me that more than twenty prisoners had died in it of the gaol fever in one year, and that his predecessor died of the same distemper."

"County Bridewell. Taunton.—Convenient apartments, court, pump, &c. If the windows, especially that in the sick ward, were enlarged, and the prison were kept as clean as I once saw it, they would have little to apprehend from the gaol fever, which some years ago, for want of an infirmary, and separation, infected the whole prison, so that of 19 prisoners 8 died."

Such are a few passages selected from Howard's work on prisons, which go to prove that his labours of love had not been without their reward, even at that early period. Many prisons were certainly improved; from some the gaol fever had been banished; in others it had been greatly mitigated, and from being a constant tenant had become a rare visitant. Gaol fever, in its original intense form, is now a matter of history, and even typhus fever gains but rare admission within the walls of our prisons. This victory over disease is wholly due to the unequalled exertions of that truly great man, John Howard—great in his industry and perseverance, great in the object to which he devoted himself, great in the success which crowned his efforts, greater still in the unexampled humility which would not suffer his self-devotion to be spoken of but as "a *whim* of his." In so speaking of his labours, we must all feel that he did himself great injustice; but those seem to me to do him still greater injustice who, taking him at his word, represent him as a mere prison enthusiast. Now, though it may be perfectly correct to point to Howard's prison inspections at home and abroad as the great work which has made his name immortal, it would be a grave error to overlook those other labours of love which give the true key to his character. His exertions on behalf of his fellow-prisoners in France, (separated, be it remembered, by seventeen years from his inspection of English prisons,) his successful efforts as a landlord among the poor of Cardington, and his last great work of philanthropy, all bear

evidence to the possession of a principle of action, as valuable as it is rare, which would not suffer him, once conscious of the existence of an evil, to rest until he had done all in his power to remedy it. It is this feature in Howard's character which makes the history of his achievements so valuable as an example. It is this which takes his labours out of the category of the workings of enthusiasm, and places them in the far higher class of the fruits of principle. The possession of one great principle of action, indeed, is the secret of the rare unity and consistency of character which marked the whole career of Howard. Whether we contemplate him pleading with the Commissioners of Sick and Wounded Seamen, on behalf of his fellow-prisoners in France, or devoting himself to the melioration of the lot of his poor tenantry at Cardington, or giving evidence before the Committee of the House of Commons, or visiting the prisons of the United Kingdom, or travelling, with the same object in view, over the Continent, or extending his researches among the hospitals and lazarettos of Europe, or seeking the plague at Constantinople and Smyrna, or gaining at Venice personal experience of the system of quarantine, or taking an active part in the defence of his vessel from an attack of pirates, or administering reproof to the indifference and selfishness of men of rank, or strenuously resisting the proposal to erect a monument to him during his life-time, or giving, from the tranquil death-bed, on which, at length, the fever he had escaped during so many years of constant exposure had stretched him, the last directions for his modest funeral in a foreign land,—view him where and how we will, he is still the same simple, unpretending, unflinching, unwearied worker, and true Christian hero,—indeed, the most heroic of men. Of such a man it is difficult to speak in terms of exaggeration; and we must all feel, that of no other, since the days of the Apostles, could it be said, with truth, in the eloquent language of Bentham, "His was the truly Christian choice; the lot in which is to be found the least of that which selfish nature covets, and the most of what it shrinks from. His kingdom was of a better world: he died a martyr after living an apostle." But I must also defend the memory of Howard from his own unjust estimate of himself when he says, "I am the *plodder* who goes about to collect materials for men of genius to make use of." Edmund Burke, on the contrary, spoke the simple truth when he said of him, "His plan was original, and it was as full of *genius* as it was of humanity. It was a voyage of discovery—a circumnavigation of charity." The fact was, Howard was a man of genius without knowing it, and his genius consisted in this, that he had a keen and intuitive insight into the proper remedies for the evils which he discovered. He was not, as some have represented him, the first philanthropist who visited the prisons of England with a view to their improvement. That honour belongs to the Society for Promoting Christian Knowledge, which, so early as the year 1701, appointed a Committee to visit Newgate, which Committee was the means of distributing money, books, and tracts, of exposing the gross abuses and immoralities practised within its walls, and of suggesting several remedial measures. It was of this Committee, doubtless, that Thomson spoke in the well-known lines:

> "Can I forget the gen'rous band,
> Who, touched with human woe, redressive search'd
> Into the horrors of the gloomy gaol?
> Unpitied, and unheard, where misery moans;
> Where sickness pines; where thirst and hunger burn,
> And poor misfortune feels the lash of vice."

This Committee missed the remedy which Howard seized with the intuition of a man of genius. He, too, distributed alms and administered palliatives; but he saw that for a great national evil there must be national remedies. The Legislature must be got to act; and here we have to admire the prudence of Howard. With a zeal for morality and religion not less ardent than his desire to promote the temporal welfare of the prisoner, he softened down the moral features of his case, that he might not excite too much opposition, and brought forward into bold relief the physical evils which he had witnessed, knowing well that he might succeed in gaining from the compassion of the Legislature what he could not hope to extort from their regard to religion.

But I must proceed.

Having now nearly finished one-half of this short course of lectures, I must remind you of the plan which I proposed to myself when I entered upon them. My first object was to prove by the most striking and conclusive illustrations drawn from the history of the past, the important principle so emphatically laid down by the Bishop of London and other influential members of the Church of England, that the most severe diseases which have afflicted our race have been either occasioned, or greatly promoted, by circumstances over which we might have exercised control. Each of the three diseases to which I have specially directed your attention has furnished its own distinct proof of the truth of this proposition. Scurvy and gaol-fever, in their original intense form, have passed away; the one has ceased to scourge our fleets, the other to infest our prisons. The one has nearly disappeared before an increased command of the necessaries of life, and a more exact knowledge of the essential constituents of a wholesome diet; the other has been driven out by the irresistible invasion of air, light, and water. Even the small-pox, as I might have shown you, if time had permitted, was susceptible of being greatly modified by free ventilation and the observance of cleanliness. The means of preventing scurvy and gaol-fever, and of mitigating small-pox (the self-same means, be it remembered, have diminished the mortality of children, and reduced that formidable disease—dysentery, within very narrow limits) these means were so obvious and so natural, that one can only wonder at their having been so long overlooked. The same may be said of the practice of inoculation, which consisted in choosing the age, and time, and condition of body, best fitted for the favourable reception of the small-pox. But, it must be owned, that *vaccination* belongs to a different class of discoveries. It was by no means obvious; no *à priori* reasoning could have led to it; it was one of nature's great facts, seized and turned to account by one of nature's great men; the most convincing of proofs, if any were wanting, that the same good Being who, in a spiritual sense, willeth not the death of a sinner, willeth not also, in a natural sense, the premature death of a man, but, on the contrary, has so ordered this visible universe, that most known diseases, not involving a serious change in the structure of the body, have their appropriate remedies: some consisting in a submission to the simple laws of health previously disobeyed, as was the case with scurvy and gaol-fever; others in the use of animal, vegetable, and mineral substances endowed with specific virtues, as is the case with bark in ague; and this one, *vaccination*, stamped, if I may be allowed the expression, more visibly than the rest, with the marks of a special providence, wrought out of the very poison of small-pox itself, rendered comparatively harmless by being passed through the body of an animal.

We can all of us conceive a state of things in which the lightning might have had no property that man could turn to account in constructing conductors; the storm such power, that no material could be found tenacious enough to hold the ship, or resisting enough to form the breakwater; the offensive ashes of the food of man and animals, and the poisonous gases which issue from their lungs and skin, no properties to fit them for the support of vegetable life, so that a time would inevitably come, when the whole supply of nourishment must be consumed, and man perish miserably from the earth. With equal ease might we imagine a state of things in which diseases should have no antidotes or means of cure; for the scurvy no lemon-juice; for ague no quinine; for maladies in which man is peculiarly culpable no mercury; for the small-pox no vaccine lymph. The further we pursue such reflections as these the more are we filled with admiration and astonishment. That remedies should have been provided even for diseases deliberately brought by man upon himself by forbidden indulgences and wanton sins—this is indeed wonderful, and not the less so, that it finds a perfect parallel in the dealings of Providence in spiritual things. How impossible is it to resist the conviction, that the same hand which placed all these good things within our reach, guided Cook in his voyages of discovery, led Jenner step by step in his great inquiry, and supported the feeble frame of Howard in his toilsome pilgrimage among the prisons, hospitals, and lazarettos of Europe.

Such reflections as these will not, I trust, be deemed misplaced, or, still worse, be considered an encroachment on the province of your other teachers. They spring so naturally out of my subject, that I could not resist the temptation to give utterance to them.

My first object, then, (to return from this short digression to the subject immediately before us) my first object in this and the foregoing lectures has been to establish the truth of the proposition to which I have so often referred,

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that some of the most severe diseases which have scourged mankind have been wholly, or in part, due to causes admitting of removal. My reasons for insisting so strongly on this point are:—first, that I deem the proposition in question most important as a motive to exertion; secondly, that it serves to render probable that other important proposition which I shall have to demonstrate and enforce in the remaining lectures, namely, that several severe and fatal diseases, (one of them strictly analogous to gaol fever, and the older pestilences, others due to the same or similar causes) still exist to the constant danger and extensive destruction of life, at the same time that the condition of the mass of the people is such as to give a ready reception and encouragement to every new form of pestilence.

As then the lectures, up to this point, have been devoted to the sanitary condition of the population in times past, so the remaining lectures of the course will treat of their existing sanitary state; of the prevalence of disease, and the causes of it; of the waste of health and life, and the means of preventing it; together with the influence on health of habits and modes of life, of the usages of society, and of the laws which determine the physical and social condition of the people. In handling this important subject, I must again remind you that I have no intention, in the present course of lectures, of entering into minute details respecting the remedial measures by which the physical condition of the people may be improved. I shall not fail, however, to indicate those measures so as to put you in a position to work out the details for yourselves. I shall, however, from time to time, throw out such hints as seem to be most important, and to grow most naturally out of the subjects under discussion. My next lecture, for an obvious reason, (I mean the analogy of the disease to gaol fever,) will be devoted to the subject of typhus fever, the most fatal pestilence of our times. The parallel which I propose to draw between it and the gaol distemper, cannot, I feel convinced, fail to prove very interesting, very instructive, and very suggestive. The cholera will also have to be considered as one of the appropriate subjects of these last lectures of the course.

ORIGINAL COMMUNICATIONS.

CASE OF ENCEPHALOID DISEASE.

By J. VAUGHAN HUGHES, M.D.,
Physician to the Bedford General Infirmary.

Sophia Mayes, aged 25, married four years, but never pregnant, lacemaker, was admitted an in-patient of the Bedford Infirmary December 14th, 1850. Of a sanguine, phlegmatic temperament, fat, and firm in the muscles, and no cachexia discernible in her general appearance. States that she has been under medical treatment in the country for about eight months, complaining of more or less pain and swelling of the abdomen. At the present time she is suffering from pain in the left iliac region, extending downwards to the extremities, which swell towards evening, but are observed to be their natural size again in the morning. After a meal a dragging sensation is felt at the epigastrium. Tongue coated at the back part; appetite good; bowels habitually costive; pulse full; menses have not appeared for eleven months. Her husband informs me that she has been a most sober, hard-working woman from her girlhood, and, previous to marriage, was employed in the active duties of a farm-house; that for the last two years she has been declining in health, referring her ailments from time to time to some derangement in the abdomen. She was frequently uneasy after eating, and obliged sometimes to unlace her stays.

December 16th.—Great pain is felt in the right hypochondrium, right shoulder, and right side of neck. The abdomen is more distended, evidently with fluid. She sighs much, seems dull and lethargic; pulse 120, and full; skin sometimes perspires slightly; bowels open; fæces dark; urine scanty, with much deposit of uric acid and urate of ammonia, specific gravity 1030, albuminous by NO_5 HO, and heat to $\frac{1}{15}$th of its volume. The case was now looked upon as one of chronic disease, with enlargement of the liver, the lower border of which could be distinctly felt through the parietes of the abdomen, as low down as the umbilicus. The patient was placed under a mercurial course, warm baths, counter-irritation, alkalis, taraxacum, and rhubarb. This treatment was kept up rigidly for nearly three weeks, without inducing salivation or any change in the disease. At the end of that time the anasarca increased, and, as there was more debility of system present, and a disposition in the blistered surface to slough, the mercury was suspended, and stimulating diuretics substituted, but these had no effect in producing a larger flow of urine. Elaterium was therefore tried, which acted well as a hydragogue, and evacuated much water for a time; but the frame being now in a very debilitated state, this remedy could not be safely continued. The fæces, though of a dark colour for the first few days after admission, assumed subsequently a pale clay-like colour and consistence. All medicine was at last suspended, except an opiate at night; but the dropsical fluid found a free exit by means of an abraded surface on the left side, and the drain thus induced continued to depress the system, and she sank exhausted on the 14th February.

For some days previous to death she suffered from a painful spasmodic affection of the throat, and difficulty of breathing, palpitation at the heart, and pain in the chest, but no bruit was heard. On examination, *the chest indicated no disease, and the respiration throughout had been healthy, and the vesicular murmur distinct.*

Sectio Cadaveris.—The following day, on opening the abdomen, its cavity was found to be considerably encroached upon by the liver, which extended to the left hypochondrium, and far down over the small intestines. After carefully separating the liver from its attachments posteriorly, we discovered, adhering by membranous bands to the under surface of its right lobe, a large soft greyish mass enclosed in a smooth covering. The mass was separated from the organ, and dissected out in connexion with the right kidney, to the upper part of which it was closely adherent. From its position and attachments it was regarded as an enlargement of the supra-renal capsule. It would weigh about 3 lbs. It was filled with encephaloid matter, except at its lower part, where a reddish soft deposit had taken place, apparently from a sort of apoplectic condition, such as we sometimes see in the substance of the brain. The kidney itself was healthy, and so was that of the opposite side. On the under and upper surfaces of the liver, and within its structure, also were found soft cancerous collections, varying from the size of a nut to that of an orange, nodulated in appearance, isolated, and easily detached by the fingers from the tissue in which they were imbedded. The portal vein was laid open; fibrinous deposits had taken place on the internal lining, but could be scraped off with the scalpel. The stomach, intestines, and ovaries appeared healthy; the internal wall of the uterus was of a chocolate colour, but its structure was otherwise sound. In the chest we found the heart healthy, and also the left lung; *but, in the right, were observed similar collections as those deposited in the substance of the liver*, and as readily detached by the hand witho ut rupturing the surrounding tissue; but they were only found scattered indiscriminately in five or six parts near the surface, and about the size of a filbert.

A striking feature in the above case was the absence of all cancerous cachexia in the external appearance of the patient. She was stout, and the muscular development large and firm, which created surprise when we came to find so great an amount of internal malignant disease.

Another remarkable fact, was the presence of cancerous deposit in the right lung, without giving rise to any physical sign indicative of such a state. She never complained of her chest until a few days before death, when the presence of the ascitic fluid produced dyspnœa.

The portal vein being partially clogged with fibrin, would account for the gradual accession of ascites, and the pressure on the vena cava and ductus choledochus, by the huge mass attached to the liver and right kidney, would explain the cause of the dropsy of the lower extremities, and the deficiency of bile in the fæces.

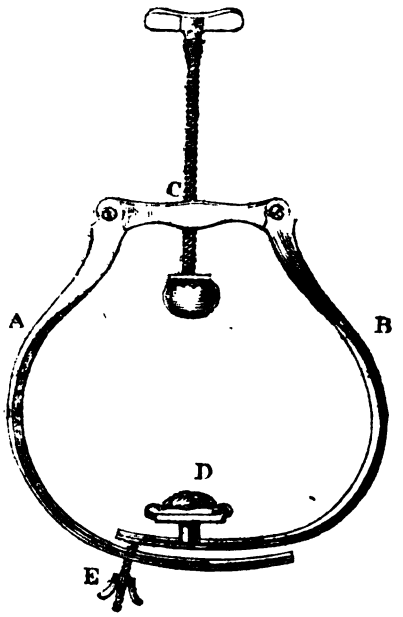
DESCRIPTION OF AN IMPROVED CIRCULAR STEEL TOURNIQUET FOR AMPUTATIONS, &c.

By Mr. F. A. BULLEY, F.R.C.S.,
Surgeon to the Royal Berkshire Hospital, Reading.

The accompanying sketch is intended to represent an apparatus which I have recently had constructed, by Mr. Weiss,

of London, for the more ready and effectual prevention of arterial bleeding during amputation of the limbs; and, although the peculiar mode of controlling hæmorrhage by the means of a circular steel tourniquet may not be entirely new, I trust that the introduction of an additional simple and convenient method of effecting this object, may not be without its advantages to surgical practice.

It can scarcely have escaped the notice of those who have had any considerable experience in practical surgery, that the ordinary brass tourniquet of Petit cannot, in every instance in which it is applied, be made to answer its intended purpose; thus, in the case of a very stout person, it is sometimes extremely difficult to produce such an amount of pressure upon the pad of the instrument as will secure the requisite compression of the artery, especially where the vessel is more deeply situated than usual; and again, through the constriction of the circumference of the limb, occasioned by the close apposition of the tapes to the skin, the superficial veins of the extremity below the point of pressure are apt to become so much congested as to bleed profusely from the cut surface of the stump, so much so, in fact, as sometimes to necessitate the removal of the tourniquet, an occurrence which, by the employment of some such instrument as I am about to describe, may almost certainly be avoided. The want of such an apparatus has, indeed, given rise to several ingenious suggestions for an improvement in these instruments, but, as the contrivance which I now venture to recommend differs, in many respects, from any other circular tourniquet with which I am acquainted, I trust it may be found to be not without some value, as an addition to our present means, of arresting arterial hæmorrhage in amputations, as well as in cases of wounded arteries of the extremities where a temporary stoppage of the arterial circulation of a part is required.



The apparatus is composed of two semicircular clips or branches, which are made to open out by means of hinge joints at the ends of the horizontal bar C. Through the centre of this horizontal bar passes a long screw, with a square cut worm; the end of which is made to revolve in the plate of the compressing pad, which latter thus remains stationary, while the screw is working. Near the extremity of the clip A, is a slit in the metal, in which slides the short screw observed in the drawing, which enables the instrument to be enlarged or diminished, according to the size of the limb on which it is to be applied.

The pad D, which also, by means of its stem, moves in a slit in the opposite clip B (to allow of its being placed opposite the compressing pad, under all the circumstances of the diminution or enlargement of the circle) revolves on the short stem on which it is placed, and is raised a little distance from the clip to which it is attached, for the purpose of preventing pressure of any part of the instrument upon the superficial veins.

The instrument which I have thus endeavoured to describe, was manufactured under the superintendence of Mr. Williams, a gentleman connected with the establishment of Messrs. Weiss and Co., to whom I am greatly indebted for several useful hints in its construction, and who will be happy to show it to any gentleman who may wish to inspect it.

17, Market-place, Reading.

CASE OF

CONGENITAL MALFORMATION OF THE GENITO-URINARY ORGANS.

By JOHN WIBLIN, Esq., F.R.C.S.

The subject of these distressing cases of defective organization has recently been reviewed and brought under the notice of the London Medical Society, and of the Profession generally, through the medium of the Medical Press; and as cases of this description are of more frequent occurrence than is generally supposed, I consider that any suggestions calculated to alleviate the sufferings, or benefit the miserable condition of this class of sufferers, are entitled to the best consideration of the Profession.

The accompanying drawing of my patient and his malformation of parts, was executed some months since by my friend Mr. H. Dayman, surgeon, of Milbrook, near Southampton, and accurately represents it.

No. 1. A small hernial protrusion above the mucous membrane of the bladder.

2. The posterior wall of the bladder, partially covered with a most painful and vascular surface.

3. The openings of the ureters.

4. The rudimentary penis.

5. A furrow or groove upon the upper surface of the rudimentary penis.

6. Bifid prepuce.

7. Extensive ulceration of the groin.

The following is a concise history of the man's case: George Page, aged 28 years, of a robust and masculine appearance, has been under my care for the last two years, for the purpose of meliorating to some extent the distressing symptoms under which he so frequently labours. His employment, when in tolerable health, is that of a coal lifter alongside the quays of this port. At a very early

period of his life his case was examined by several medical men, who conveyed to his relations the impression that he was a genuine specimen of an Hermaphrodite; and under this appellation he has passed the latter years of his life, being frequently subjected to the most painful annoyance by those with whom he associated. His outward dress consisted of a very long smock-frock; but, in consequence of the great inconvenience occasioned by the dress being found frozen to his person, this attire has been abandoned, and he now wears high leggings.

About twelve months ago, I was requested to visit this unfortunate man, who was confined to his bed in consequence of a large ulcerated opening in the right groin, occasioned by the irritating qualities of the urine. Upon examination of the parts, I at once perceived that there was an extensive congenital deficiency of the lower and central portion of the abdominal parietes, and through which protruded the posterior wall of the bladder.

The pubic bones are separated to the extent of at least three or four inches; and a distinct cartilaginous band passes across from one angle of the pubic symphisis to that of the other, and in a measure tends to compensate for the weakened condition of parts which such a separation must necessarily produce. The rudimentary penis is about one inch and a half in length, and has a perfectly formed corona glandis; the prepuce is bifid, and has the appearance of two wart-like appendages. Upon the upper surface of the organ is a groove, in which are seen numerous lacunæ; and at its base is observed the termination of the ejaculatory ducts on either side of the caput gallinaginis. The testicles are fully developed.

Through the extensive triangular opening in the inferior parietes of the abdomen, the posterior wall of the bladder protrudes. When the patient assumes the erect posture, the swelling is about the size of a very large orange. The mucous membrane of the upper portion of the tumour is highly vascular and shining. On the inferior and lateral portions of the protrusion there is an exceedingly sensitive and painful strawberry-like pulpy surface; and below this, on either side, are the external openings of the ureters, and from which the urine is observed to dribble away as fast as it becomes secreted.

Above the parts just described, and immediately under the apex of the triangle formed by the separation of the abdominal parietes is a small hernial protrusion. In this case, as in those recorded by the late Mr. Earl and Mr. McWhinnie, there is no umbilicus.

The groins are generally the seat of extensive ulceration, produced by the irritating properties of the urine.

Such is the defective anatomical structure of the genito-urinary organs of the patient now under my care. With reference to the generative functions of the male labouring under these malformations, it has been observed, in a very able and excellent paper by Mr. McWhinnie, of St. Bartholomew's Hospital: "That there is, for the most part, entire abrogation of all procreative power, although, in connexion with the integrity of the internal organs, the ordinary sexual appetite may exist, the necessary consequence of the condition of the urethra." Although I am disposed to admit the general accuracy of the physiological opinions of the late Mr. Earl and of Mr. McWhinnie on this point, still I am inclined to believe that some exceptional cases may present themselves.

My patient entertains the belief, and positively states, that he is fully capable of gratifying the venereal passion. He informs me, that at the age of fifteen years he had frequent sexual intercourse with women, and that he has continued to do so, from time to time, up to the period of his confinement to the house, in consequence of ulcerated groins. He further states, that during such intercourse he has a perfect seminal emission.

Whatever difference of opinion may exist as to his powers of fecundation, I am convinced that the secretion is normal, and that he has the power of ejaculating semen into the grooved surface of the rudimentary organ. With a view to satisfy myself on this point, a few days ago I directed him to charge four glasses after the act of coition with the fluid that he might find in the immediate vicinity of the caput gallinaginis. These I placed under one of Ross's quarter of an inch object glasses, and I found them covered with distinct and perfectly formed seminal granules, interspersed with human spermatozoa.

The most important consideration in connexion with these troublesome cases of malformation of the genito-urinary organs, is, to devise some mode of treatment, either surgical or palliative, that may prove permanently conducive to the comfort of the patient.

In order to diminish the irritability of the pulpy surface of the mucous coat of the bladder, I have applied styptics of almost every description, but the relief afforded by these applications has been but of temporary duration. The ulcerations in the groin I have healed with collodion on three or four occasions, after everything else had failed.

At a recent meeting of the Medical Society of London, Mr. T. Wakley introduced a patient on whom he proposes to perform an operation, for the purpose, as he states, of protecting "the painful and highly vascular urinary tumour." The operation which he suggests, viz., "to dissect two flaps of skin from the integument in immediate contact with the tumour," will, I fear, prove a total failure, both as regards the contemplated union of the middle and lateral edges of the incisions, and the imaginary benefit the patient will be led to anticipate.

As Mr. T. Wakley very properly admits, the constant distillation of the urine from the exposed terminal openings of the ureters, will prove a very formidable obstacle to the union of the flaps; but, should union by the first intention be the result of the operation, will the patient's condition be in any way meliorated or improved? I believe it will not; on the contrary, I consider that his case will be much worse than it was before the operation, and that, instead of having a congenital deficiency of the abdominal parietes, he will have an artificial one constantly exposing him to direct hernial protrusions; in addition to this state of parts, even in the event of a successful union, the patient will have an unsightly, useless, pendulous pouch or flap, in no degree calculated to benefit his unfortunate condition, nor to improve the inconvenience and great annoyance of incontinence of urine to which this class of patients are invariably exposed.

After giving my best consideration to these malformations, I am disposed to coincide in opinion with those eminent authorities who have studied and written on these cases, and who consider that, whether the pubic symphisis be in perfect apposition, as in Mr. Wakley's case, or whether they be separated to the extent they are in the case under my care, surgical interference is unjustifiable and unwarrantable.

The only relief that can be afforded in cases of this kind, is by means of the excellent apparatus,—with some slight modifications,—suggested and constructed under the direction of the late Mr. Earle, a drawing of which appears in the admirable paper by Mr. McWhinnie, and to which I recommend every one interested in the study of these malformations, to make special reference.

Southampton.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. GEORGE'S HOSPITAL.

By Dr. BARCLAY,
Medical Registrar.

DEATH FROM ANÆMIA.

In the progress of pathological anatomy, different forms of disease, which were previously confounded together, have come to be recognised as separate and distinct—trains of symptoms have become associated with certain *post-mortem* appearances, which are now known to have given them origin, and it is possible to predict with greater or less certainty what these appearances will be in any given case.

One evil, however, has naturally arisen out of the search after truth in this direction, that morbid changes unappreciable to the senses were overlooked, and a preference was naturally given to structural over humoral pathology; so that, until of late years, due consideration has not been given to morbid states of the blood itself, as the recent introduction into our systematic writers of the terms hyperæmia, anæmia, cachæmia, &c., may testify. Even now, as a cause of death, so little are they acknowledged, that they find no place in the classification of the Registrar-General; and for this omission he is perhaps not so much to blame as the practitioners who return to him the causes of death in the

metropolis. Yet how many must be the cases in this overcrowded, ill-ventilated, and badly-drained mart of nations, where every man jostles his neighbour in pursuit of gain, and the weakest, mentally, physically, or in circumstances, must go to the wall, according as the strife is for pre-eminence in science, in art, or in extent of speculation, or, as too often happens in the case of the poor, for daily bread! How many of the slop-shop tailors or the distressed needlewomen of this great Babylon must come under the class anæmic or cachæmic!

It is at the same time true, that comparatively few fall victims to this disease in itself, and it rather acts as a predisposing cause to the supervention of fever, of cholera, or some other malady; and on the one hand adds to their mortality, while on the other it warns the practitioner, that, however acute the disease he is called to treat, he must, in such cases, discard all his theories of blood-letting or depletion, for nature demands his aid in another direction altogether, in giving tone to the relaxed fibres, in giving fresh supplies to the impoverished blood, and stimulus to the exhausted nerve, and so to enable her to establish those processes of repair, on which, after all, recovery depends. The comparatively better air of a good hospital, and its far superior diet, the comforts of a warm and easy bed, and the attendance of an intelligent nurse, afford to the anæmic or cachæmic patient, the pabulum as well as the most favourable conditions for its conversion into that material of life which the constitution has lost; while the resources of science and experience afford those remedial measures best calculated to aid nature in restoring the balance of the circulation. So beneficial are these influences, that among 180 cases specially referrible to morbid states of the blood, of this class, admitted into this hospital during the last two years, only one death occurred from erysipelas supervening in the hospital. The two subjoined cases were admitted during the month of January of the present year, and were so closely allied, as well in the absence of decided symptoms of disease during life, as in the general character of the *post-mortem* appearances, that they form a complete counterpart to each other; their value depends on the opportunity of making an inspection of the bodies, which is too often denied to the practitioner in private, so that he is sometimes left at the last in doubt as to the nature of the disease he has been watching, and in vain endeavouring to combat.

Case 1.—James S., aged 34, admitted under the care of Dr. Page, 21st January, 1851. He had applied ten days before as an out-patient, and then stated that he had been ailing for nearly twelve months, and that he suffered most from pain across the loins, which, however, was not constant, and was generally accompanied by scanty urine, containing a copious sediment. During the last fortnight he had lost flesh rapidly; he had some cough, but little expectoration, and had never spit blood. His face was remarkably exsanguine, and his lips pale; tongue whitish and anæmic; pulse 120, weak; bowels had been very costive until opened by medicine received in the previous week; he now complained of shortness of breath and palpitations. There was a slight difference on percussion at the two apices; the respiration was deficient at both, but more particularly at the right side, where it was distant and tubular, but there was no bronchophony. The heart's sounds were loud and shrill, but there was no distinct murmur; the urine was neutral, and free from albumen. A cough mixture was ordered, and when he complained much of headache, a blister was applied to the back of the neck which produced strangury, but the urine remained quite healthy. Good nourishment was allowed him, and afterwards a drachm of steel wine was added to each dose of his cough medicine. He felt himself better, but continued excessively ex-sanguine. On the 4th of February he was attacked by vomiting. It did not appear that he had been subject to it; and, though the vomited matters were dark, they were not grumous, and probably coloured by the medicine he was taking. He had no pain at the epigastrium, nor was there any distinct hardness to be felt; but there was a certain degree of fulness opposite the end of the ensiform cartilage, which after death was found to be due to the peculiar position of the pancreas. There was a distinct bellows-murmur with the systole of the heart, which was not heard so distinctly over the region of either set of valves as about the centre of the cardiac region, and rather inclining towards the apex. The sickness was stayed by a draught containing hydrocyanic acid and soda; but from this time he became daily more low, and was only supported by wine and brandy, and latterly he passed into a state of semi-consciousness, the lips became covered with sordes, the breathing deep and heaving, gradually passing into coma, and he died on the 11th February.

POST-MORTEM EXAMINATION THIRTEEN HOURS AFTER DEATH,

CONDUCTED BY MR. PRESCOTT HEWETT IN THE ABSENCE OF DR. OGLE.

External Appearances.—Body well formed and in good condition, but very much blanched.

Cranium.—Small quantity of serum in cavity of arachnoid; large quantity in sub-arachnoid tissue. Two or three small patches of extravasated blood in pia mater; no extravasation in substance of brain, which was firm and healthy throughout. The ventricles were filled, but not distended, with clear fluid. Every part of the brain and its membranes presented a most marked anæmic appearance.

Thorax.—Both lungs presented at their apices some old and firm adhesions, and, corresponding to these spots, these organs were puckered, and firmer than elsewhere; and one portion of the right apex was condensed and infiltrated with tubercular matter to the extent of about a shilling, part of which had become cretaceous. Both lungs were throughout remarkably emphysematous, and especially the right apex, where there were several large bullæ. At their anterior part they were bloodless, but posteriorly they were somewhat congested, and loaded with large quantities of frothy serum. Heart healthy, but pale; large fibrinous clots in all its cavities.

Abdomen.—All the organs contained in this cavity were remarkably bloodless, but the structure of all was quite healthy, except the left kidney, on the surface of which were several depressed spots, as well as here and there a small cyst. The stomach was somewhat out of its natural position, being situated lower down than usual; its lesser curvature was below the pancreas, and this organ could be easily seen and felt without displacing the other viscera. All the large vessels were perfectly healthy.

It may be observed, in this case, that the general integument was more than usually white, and of a waxy appearance, and yet the muscles were of a dark and healthy colour, such as is generally observed in persons who have died after a short illness. The whole of the subcutaneous fat was remarkably firm, and of a very yellow colour, much more yellow than usual; but this colour was not observed in the fat of any other part.

Case 2.—Mary Anne B., aged 40, admitted under the care of Dr. Wilson, 29th January, 1851.

A very pale-faced woman, who has borne several children, and was last confined on the 16th Sept. She had not had any severe flooding nor hæmorrhage, further than having passed some blood with her stools, in consequence of suffering from piles. Soon after her confinement, she had a sore mouth, for which she applied for advice, and was ordered by her medical attendant to leave off beer and meat, and confine herself to slops. To this cause she attributed her subsequent debility, as she had continued to suckle her child, and had never been able to get up her strength properly. Two months ago she had been an out-patient at this hospital with diarrhœa, from which she had recovered, but it had recurred recently, and the bowels were rather relaxed on her admission. The lips were very pale, and the face remarkably blanched; tongue clean, but very anæmic in appearance; pulse quickish, feeble, and empty; appetite was bad; urine scanty and loaded with lithates, but containing no albumen. She made no complaint of pain, but only of general weakness. She was directed to wean the child, and to have two drachms of steel wine twice a day, and an astringent enema at night, by which the diarrhœa was soon checked, so that it became necessary to give castor-oil occasionally.

Her appetite continuing very bad, quinine was ordered on the 3rd February, and a little wine was allowed her; she complained of some giddiness, and much singing in the ears. The urine was again tested, and still indicated no trace of albumen. The milk caused a slight degree of irritation in the right breast for one or two days; but this soon passed off. It was found necessary to give her morphia draughts very frequently at night to obtain sleep; and although there was no change for the better in her appearance, she rested better at night, and fancied herself rather stronger.

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For one or two days she complained of cough, but there was no expectoration; and physical exploration of the chest gave no indications of disease. It was subsequently mentioned by the nurse, that she had latterly occasional severe fits of dyspnœa; but of this she had never spoken herself, and they had not been reported by any one to Dr. Wilson. On the morning of Sunday, the 17th, when the head nurse had left the ward to attend chapel, she was suddenly seized with one of these fits of dyspnœa, which lasted longer and was more severe than usual, being attended with sharp pain at the epigastrium. When seen by the apothecary, in about half an hour from its commencement, she was unable to speak, and was evidently sinking. Stimulants were given without avail, and she died in about an hour from the seizure.

POST-MORTEM EXAMINATION, TWENTY-SIX HOURS AFTER DEATH, CONDUCTED BY DR. OGLE.

External Appearances.—Body much blanched, and of peculiar dusky yellowish tinge; slight œdema of lower extremities; peculiar elevation of abdomen at epigastric and umbilical regions, which corresponded to an inflated stomach.

Abdomen.—The stomach was found distended by air, and descending as far as the umbilicus. All the abdominal viscera were pale. The kidneys were fat, and contained much fat in their pelves, the separate structures being with difficulty distinguished. The uterus and its appendages were healthy.

Thorax.—The lungs were healthy, and contained a certain quantity of frothy serum. The larger and smaller bronchi were somewhat congested, and the larynx was studded internally by numerous red spots opposite the cartilaginous rings. The heart was healthy and contained little or no coagulum, but a small quantity of semi-fluid blood.

SEAMEN'S HOSPITAL.

By H. T. L. ROOKE, M.D.,
Resident Medical Officer.

COMPOUND COMMINUTED FRACTURE OF THE RIGHT THIGH, EXTENDING INTO THE KNEE-JOINT.

PRIMARY AMPUTATION—DEATH IN THREE DAYS.

THOMAS WILLIAMS, aged 16, was brought to the Dreadnought, at half-past seven on the morning of February 8th, with a compound fracture of the thigh.

The patient on admission was in a collapsed state, but quite sensible, and could answer the questions put to him.

He stated that, four hours since, he fell from the trysail on to the deck—a height of about forty feet; he thinks he pitched upon his right foot, and the limb was twisted under his body; received no internal injuries, nor was he rendered insensible by the fall. On examination, the thigh was found to be fractured below its lower third, and the limb much distorted; the upper fragment was partially protruding through a wound in the integuments, about three inches above the knee-joint.

The hæmorrhage was considerable, it was venous; the men who brought him stated that it had continued incessantly ever since the accident, which was most probable, from the blanched face and lips of the boy. Pressure had been employed by a surgeon, but had not succeeded in arresting the hæmorrhage.

The thigh was ascertained to be fractured about three inches above the knee, extending downwards into the joint; it was not quite certain if the fracture passed completely through the trochlear surface between the condyles, as no mobility or crepitation between them could be felt on a careful examination.

The oozing of blood was considerably increased by pressing upon the patella; it welled out through the wound as if the knee-joint were filled with blood. The hæmorrhage was arrested by means of a compress and bandage; the limb placed upon a pillow, a straight splint lightly applied on the outer side to steady it, and spirit. ammoniæ arom. was administered internally, with brandy and water, in order to bring about re-action.

Half-past 10 p.m.—The boy has somewhat rallied from his collapsed state. Mr. Busk made a careful examination of the injured part, and, feeling satisfied that the fracture implicated the knee-joint, he advised immediate amputation of the limb.

The patient was placed under the influence of chloroform. Mr. Busk then removed the limb by the flap operation. Six ligatures were applied, and the flaps brought into apposition by sutures. A very small quantity of blood was lost during the operation. The artery was compressed where it passes over the pubis.

mxxx. of tinct. opii were ordered to be given in half an hour.

Examination of the Amputated Part.—On cutting into the knee-joint, its cavity was seen to be full of blood. A vertical fracture extended between the condyles, separating them completely on the removal of the soft parts. The fracture was much comminuted, and several fragments of bone were firmly imbedded amongst the fibres of the crureus muscle. The periosteum also was stripped from the bone for two or three inches above the fracture, and hung in shreds.

Vespere.—Had a short dose after taking the opium. Pulse is very weak, 130; face pale; he is restless. The muscles of the stump are very hard and rigid; he complains much of its jumping.

Tinct. opii ordered to be repeated, with warm brandy and water.

Feb. 9.—He slept three or four hours after taking the draught, but towards the morning he began to wander. He is now suffering from delirium, which has all the character of that occasioned by loss of blood. He still, however, answers questions rationally, but immediately afterwards relapses. Pulse 140, weak and fluttering; respiration sighing.

Ordered wine every two hours, and strong beef-tea.

Feb. 10th.—He passed a bad night, notwithstanding that he had his sedative draught at the evening visit. He has vomited once or twice during the night; bowels have been freely moved once. Delirium still continues, but he will answer any question rationally. Pulse 135, very weak.

11th.—No better; symptoms the same as at the last report, except that vomiting is more frequent.

12th.—No change occurred in the symptoms. He died, apparently from exhaustion, the consequence of the profuse hæmorrhage, at four this morning.

PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

BRISTOL HOSPITAL.

By W. MICHELL CLARKE,
House Surgeon.

PERICARDITIS?

Charles Tuckfield, aged 20, admitted February 19, 1851, at a quarter-past six p.m., under the care of Mr. Reid.

Is very noisy from intoxication, but also seems to be suffering intense pain. He first pointed to the middle of the sternum. Careful examination detected no injury to that bone. There was no external mark of injury. Directly after this he pointed to his left side, low down, as being the spot where he was suffering the most. At this spot, over the angle of the ninth rib, crepitus was several times distinctly felt. He says that he spat a little blood whilst coming here, but this must be uncertain from his drunken state. He has a small contused wound of the scalp above and to the left of the external occipital protuberance. He had fallen from a plank several feet high, whilst driving a barrow full of clay. The barrow fell on his chest.

Looks robust; very healthy; usually temperate. A rib bandage was applied, and he was put to bed.

Feb. 19th, 9 p.m.—Lies recumbent; seems in intense pain, moaning with every inspiration; complains only of the front of his sternum, and says that the pressure of the bandage is very painful.

On placing the hand on the sternum a peculiar crepitus or flap is felt, which distinctly accompanies the heart's systole. If he holds his breath, this flap can be heard distinctly whilst standing by his bedside, without listening specially.

With the stethoscope this flap is heard very loud and ringing; most distinct at the junction of the fifth costal

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cartilage with the sternum, and followed by a crepitating crackling sound. These sounds are neither increased nor modified by the respiratory movements, but are most plain when he holds his breath. He is afraid to inspire deeply, and breathes quickly and irregularly. There is no increased cardiac dulness; no morbid sound with the respiration; no unnatural mobility of any rib, nor any bony crepitus can be felt in the cardiac region; face flushed; skin hot and perspiring; pulse 104, full and sharp, but easily compressed.

The bandage to be removed. V. S. ad ℥xvi.; pulv. cath. ℈j. s. s.; mist. febrifug. ℥j. c. pu. ant. p. tart. gr. ¼. 6tis horis.

Feb. 19th, 12 p.m.—Much the same; was very faint when ℥viii. of blood had flowed.

20th, 9 a.m.—Face very flushed, skin warm and dry; pulse 80, full, very sharp, easily compressed; tongue moist, with a thin yellowish fur; not thirsty; has some appetite; bowels not moved; makes enough urine; does not cough; says he cannot for the pain; breathing still difficult, but not nearly so difficult.

Respirations 22, tranquil; cannot take a deep breath for the sternal pain; can only lie on his back.

No abnormal sound with the respiration; no increase of cardiac dulness. The flap in cardiac region is much as before, and most distinct at the same place. All around this, for about the extent of the cardiac region, is a sound which simulates exactly a pericardial friction sound; to and fro and rough. At the base the normal cardiac sounds can be heard.

Hst. purg. ℥iss. s.s. pt. mist.

Nine p.m.—There is a great increase of pain and of general disturbance; in other respects the same. Bowels not moved.

Enema. aq. tepid; o. j. statim inj. C. c. ad ℥iv. inter scap. sinist. et spinam. ℞ hyd. chlor. gr. ij., pu. opii. gr. ¼, M. 4tis horis. s. Pt. mist. 4tis horis.

21st.—Has had more sleep; face flushed; skin hot and moist; pulse 88, moderate volume, not nearly so sharp; tongue moist, with a glazed streak in the centre, a thin yellow fur; very thirsty; appetite good, but deglutition painful; injection not returned; enough urine; no cough; says he does not breathe quite so easily; no pain; complains that his heart flutters, and that when he listens he hears a flap with each beat. The flap is heard the same. Around it is a crackling sound with the systole. Still further off a sound like a pericardial friction sound.

On raising him to the sitting posture, all these sounds disappear, and the normal cardiac sounds are heard loud and distinct.

Listening whilst he lies down, they are heard to return suddenly when he is midway between the sitting and recumbent posture. No abnormal respiratory sounds; no increase of cardiac dulness.

Pt. mist. et pil.; enema. terebinth. s.

Six p.m.—No motion. Pt. enema.

Nine p.m.—Much the same. The enema has returned, but without any stool.

Hst. purg. bis. s. s.

Feb. 22nd.—Slept well all night. His general condition is much improved; he feels no pain in his chest; bowels not moved; no cough, dyspnœa, nor palpitation; the flap still heard and even louder. The crackling sound is not so distinct, and the "to and fro" sound is no longer to be detected.

On sitting up the abnormal sounds all disappear and return suddenly, as they did yesterday. Just after their return and before he is quite down; the flap is much like the splashing of fluid.

Omit medicine.

℞ Ol. tig. miv.; micæ panis, gr. xij.; M. div. in pil. iv. j. s. s. et rep. 6tis. si opus sit.

23rd.—Slept well and feels pretty well; bowels moved three times after he had taken two of the pills; no pain, cough, dyspnœa, nor palpitation; no increased cardiac dulness; the flap and the crackling sound are much less distinct; they still occupy the same position; they still accompany the systole.

Omit med. omnia.

24th.—Middle diet, (rice, broth, bread, &c.)

25th.—Sleeps well; feels quite well; aspect natural; skin warm and moist; pulse 64, moderate volume and soft; tongue moist and clean; not thirsty; good appetite; bowels move daily; makes enough urine; no pain; no dyspnœa; no cough; the flap is quite gone; the crackling sound is still heard, but only at the apex.

28th.—Feels quite well. No abnormal sound remains in the cardiac region, except a slight roughness with the first sound, most marked at base and towards left shoulder.

Discharged.

March 3.—Showed himself; he is quite well.

Until the 21st, he was so afraid to be moved, that it was not known that these sounds disappeared in the sitting posture. It seemed very probable, though by no means certain, that they depended upon some injury to the pericardium, or even to the heart itself. The disappearance in the sitting posture could not concord with this opinion. On what, then, did they depend? The flap was much like the bursting of a large bubble. It is difficult to describe its characters. The crackling was precisely like that of emphysema. The remaining sound was like a friction-sound, pericardial. After considering well all points, it seems most probable that they were caused by emphysema, or rather blood and air effused between the costal pleuræ and the walls of the chest, or into the mediastinum. Yet it is odd that they were not increased by the respiratory movements. They were entirely confined to the cardiac region. They evidently derived all their impulse from the heart, yet were not entirely cardiac, for they completely disappeared on the position of the body being shifted. I cannot be certain that the opinion suggested is the corect one; but, in the absence of certainty, and in the absence of any record of a like case, I much incline to it. The roughness of the systole on his discharge was evidently due to anæmia.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	May 3.	Medical Society of London. *Subject*:—Dr. Routh, "On Some of the Fallacies of the Modern Practice of Medicine, more especially Homœopathy, and in estimating the Results of Treatment by Imperfect Statistical Inquiry." Eight o'Clock.
Monday,	May 5.	Epidemiological Society. *Subject*:—Dr. John Snow, "On the Mode of Propagation of Cholera." Half-past Eight o'Clock.
		Entomological Society. Eight o'Clock.
		Chemical Society. Eight o'Clock.
Tuesday,	May 6.	Royal Medical and Chirurgical Society. *Subject's*:—1. Robert Barnes, M.B. "On Fatty Degeneration of the Placentæ and the Influence of this Disease in producing Abortion, Death of the Fœtus, Hæmorrhage, and Premature Labour." 2. Professor C. F. Schonbein, "On the Physiological Effects of Atmospheric Electricity and Miasmatic Substances." Half-past Eight o'Clock.
		Linnean Society of London. Eight o'Clock.
		Pathological Society. Seven o'Clock.
Wednesday,	May 7.	Royal Botanic Society. Quarter to Four o'Clock.
Thursday,	May 8.	Royal Society. Half past Eight o'Clock.
		South London Medical Society. *Meeting of Council.* Half-past Seven o'Clock.
Friday,	May 9.	Royal Institution. *Subject*:—Professor Baden Powell, "On the Recent Pendulum Experiment showing the Rotation of the Earth." Nine o'Clock.
Saturday	May 10.	Medical Society of London. *Subject*: Dr. C. Toogood Downing, "On Catalepsy." Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, MAY 3.

HOMŒOPATHY AND ITS STATISTICS.

The homœopathic doctrines of infinitesimal doses—*similia similibus curantur*—and those respecting chronic diseases, offer such violence to common sense and to our daily experience, that we could only be expected to receive them upon the clearest evidence of their truth. When the inconceivable

absurdities of their system are exposed, it has become common for the disciples of Hahnemann to appeal to facts and figures. "You may say what you please," say they, "of our doctrines, but statistics prove that we cure more cases than you do." Now this is an argument with which we can sympathise. If it could be proved that the homœopaths cure more cases than we do, we would, without hesitation, not, indeed, necessarily embrace homœopathy, but at once and for ever abandon allopathy. A sound statistical argument we hold to be unanswerable; but, in proportion to its value is the importance of knowing that it is founded upon trustworthy materials. If the observer be so ignorant that he cannot distinguish the disease to be treated, or so biased that he sees all he looks for, or so dishonest that his figures are manifestly "cooked," then are the statistics of no value. The results are not only false, but the more dangerously false for being dressed in the garb of truth. For statistics to have any value, the observer must give proofs of his competency, of his industry, and of his superiority to all bias, whether arising from the spirit of a partisan, or from the baser motive of love of gain. Tried by these tests, we fear that homœopathic statistics will be found to cut but a sorry figure. Most of them may be safely left to answer themselves. They prove so much, that they establish nothing but the ignorance or the infamy of their authors—generally both.

As an illustration of these remarks, we invite the attention of our readers to a report of the "Cholera at Huddersfield," published in the *Homœopathic Times*, for Dec. 15th, 1849, by a "P. Brady, Esq.," and which we request them to compare with the Report which we have recently published(a) from the pen of Dr. Taylor, of Huddersfield. We pass over the flippant conceit exhibited in Mr. Brady's remarkable Report. We wish to confine our attention to his figures. As a statistical document, we suspect it would puzzle our readers to match it. Mr. Brady gives "a Table of Cases of Cholera treated in Huddersfield and its vicinity." The results of those treated homœopathically and allopathically are separately recorded, of course with the view of showing the superiority of the former treatment. He adds, "So far as I could gain information on the subject, I pledge myself for the accuracy of my Report." The result of the inquiry is no doubt very consolatory to the man who has had the boldness to stand by the bed-side of patients in the agonies of cholera, and attempt to do nothing for their relief but administer infinitesimal doses of "cuprum" and "arsenicum." Here it is. Of twenty patients treated allopathically, eighteen died, and two only recovered. Of eight patients treated homœopathically, none died—all recovered. How has "such an unheard-of per-centage of deaths," to use Mr. Brady's words, been arrived at? Are the medical practitioners of Huddersfield so incomparably inferior to those of all other towns in medical knowledge and skill, as this report would represent them to be; or—as our readers who look at their names may be inclined to ask—can there be no mistake in this "Report" of Mr. Brady? The document itself, like many others emanating from the same school, will help us to answer this question. "The deaths," says Mr. Brady, "were copied from the books of the registrar in Huddersfield." This authority seems unimpeachable. The deaths must be all registered. A very little trouble only is required to copy them. But even this trouble was too great; for, with all his desire to make out a case against allopathy, Mr. Brady has not reported quite *half* as many deaths as are to be found in Dr. Taylor's paper. Truly, our statist's industry and accuracy are as infinitesimally small as his doses of cuprum and arsenicum. What proportion the value of his "pledge" may bear to that of ordinary men, our readers will, by-and-by, be able to judge for themselves. Then, as to the recoveries; these, not being registered under the auspices of the Registrar-General, have to be sought for elsewhere. So far as Mr Brady "could gain information on the subject," the recoveries in all the district, under allopathic treatment, amounted only to *two*. Mr. Brady took pains, of course, to find out the recoveries. He would apply to one or other of the only two parties who could help him,—the families afflicted or the medical attendants. That he did not apply to the latter may be inferred from the fact that Dr. Taylor has published the names of fifty-four persons who recovered; and even if, as is admitted, some two or three of these may not have been cases of severe cholera, there still remains such a number of very bad cases, as contrasts most strangely with Mr. Brady's *two*. If he applied to the former, he has been singularly unfortunate, or perhaps he has spent as infinitesimally small an amount of labour upon the investigation as he seems to have spent upon the registrar's book of deaths. The following examples will serve as specimens of the care and impartiality of this imaginative reporter:—Sarah A. Taylor, who died, figures in Mr. Brady's table; but her husband, who lived with her, recovered, and for that reason, we presume, is not once alluded to. We can find no other reason for the record of the death of Sarah Tomlinson, and the corresponding omission of all notice of the case of her granddaughter, who lived in the same house, and recovered. Allen Micklethwaite, who died, figures among the allopathic cases; yet Dr. Taylor states, that he was treated exclusively by the homœopaths. These are cases which will arrest the attention of every careful reader of the two reports. Whether, in other cases, the benefits of allopathy may not have been interfered with by the intermeddling of the homœopaths,—as some parts of Mr. Brady's report would lead us to suspect—and whether the cases professedly cured by homœopathy were really cases of cholera, and if so, whether they were treated by infinitesimal doses, or by the doses in general use, (for it is a well ascertained fact, that the homœopaths, when it suits their purpose, that is, when there is no other chance for the alleviation or the removal of the disease—give doses of medicine as large as we give) are questions which the medical men of Huddersfield alone can possess the requisite knowledge to answer; but they are questions which would be very material, if Mr. Brady's report had not already been shown to be utterly unworthy of the smallest credit.

We must add a few words upon homœopathy. The homœopaths profess to have established certain principles which, if true, prove all our previous notions of medicine to be false and pernicious. They complain bitterly, that the medical Profession refuses to receive their doctrines. They accuse us, in consequence, in no measured terms, of professional prejudices and of wilful blindness from motives of self-interest. If they really do believe that they are in possession of important truth, and if they really be anxious that we should receive and put in practice doctrines so repugnant to common sense and every day experience, what ought their conduct to be? Ought they not to deal very leniently with our prejudices—to give us credit for as much candour and impartiality and disinterestedness as we really possess—to avoid adding to our difficulties by abusive language, and false and vile insinuations; and to be very

(a) See *Medical Times* for March 8th and 29th, and April 12th, 1851, pp. 256, 340, and 399.

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careful they do not render it impossible for us to hold any communication with them by the violation on their part of all the decencies of professional intercourse? Do they conduct themselves like men who are in any degree animated by such sentiments? Let those of our readers answer, who have lived in the neighbourhood of homœopathic practitioners. What are their habitual practices? We can describe some of them from ample opportunities for observation. If a patient dies under the care of an allopathic practitioner, an impression is sought to be conveyed, that such an event never could have happened under homœopathic treatment. If a patient is afflicted with a dangerous acute disease, or with an obstinate chronic one, some benevolent person is sure to carry the information that Mr. —— "has been very successful in the treatment of such cases, and he is sure he could cure you." If the patient does not desire to see Mr. ——, the friend often sends him on his or her own responsibility, and Mr. —— has no scruple about going in such circumstances. Once called in, Mr. —— will promise to cure any kind of disease; the neighbourhood soon rings with reports of the vast improvement effected after all the allopaths had failed; the previous practitioner has entirely mistaken the nature of the case. If the patient *will* die after all, it is in consequence of the injury done previously by allopathic doses; and if Mr. —— had only been called in earlier, he could easily and certainly have effected a cure. The evil effects of ordinary remedies are most grossly exaggerated and multiplied. We saw lately a case of well-marked phthisis with diarrhœa. A homœopath had pronounced the disease to be inflammation of the mucous membrane of the stomach and bowels, *produced by the previous administration of mercury*, and promised a cure, but "it would take a long time," (*anglicè*, a great many fees.) They will attend, clandestinely, patients whom they know to be under the care of another practitioner. When replaced by another practitioner, they will afterwards call uninvited; "they have been thinking further of the case, and discovered a sure remedy." They catch at every means of obtaining local notoriety short of the openly paid advertisements of such men as Holloway and Co. Whilst abusing medicine and medical men from house to house, they endeavour to enlist on their side the generous sympathies which are the peculiar characteristics of Englishmen, by representing themselves as the victims of persecution, carried on by interested parties.(a) Many of them boast that they practise either homœopathy or allopathy, according as they think the one or the other suited to the case. We have seen a prescription, written by a homœopath, for allopathic doses of steel in a case of anæmia.

Are these the practices of men who are conscious that they are the repositories of new and important truths, and anxious above all things to benefit mankind by taking means to insure their reception? Do they in this way propose to destroy the prejudices, and appeal to the understandings and enlist the sympathies, of the enlightened members of our Profession? Or are they like the expedients of men, who, for the most part, having failed in their efforts to compete in an honourable way with their professional brethren, have made up their minds to purchase gold at any price? whose motto is,—

"Rem—
Recte, si possis, sed non
Ullo modo rem"?

Men who practise the tricks we have enumerated are *quacks;* and, if they have had the education of gentlemen, and possess the diplomas of Medical Colleges,—however they may wince at the application of the name,—their quackery is only the more infamous; because they must be well acquainted with its tendency to degrade their Profession in the estimation of the enlightened portion of the public, as well as to deceive and injure their suffering fellow-men. The truth seems to be, that the practice of homœopathy cannot, in general, be sustained or propagated without the adoption of expedients which are universally reprobated by honourable men. We say not that there are no exceptions. There may be some upright and sincere, although feeble-minded men among them; but all who seek to live by homœopathy are exposed to a strong temptation to which too many of them yield,—to disregard every restraint which the true interests alike of practitioners and of patients, have imposed upon the cupidity or the vanity of individual members of the Profession. Most of them find themselves excluded—justly, as they well know—from the society and the sympathies of all respectable professional men, and placed in a class, higher or lower in it as the case may be, which includes among its members the vilest specimens of humanity,—those who fatten upon the miseries of other men,—too many of them soon cast away every remnant of restraint, and apply themselves deliberately to the infamous traffic of turning to the best pecuniary account the fears, the hopes, the prejudices, and the credulity of the suffering sons and daughters of men. They have chosen their calling and their company; let them be contented, but let them not affect to feel surprise or indignation when they find themselves repudiated and avoided by those enlightened, and benevolent, and self-denying members of our Profession who justly abhor both.

(a) The cause of our quarrel with the homœopaths is generally much misunderstood by the public, and ought to be clearly stated. We find no fault with any man, simply because he embraces what we deem erroneous doctrines. We do not feel called upon to withhold from him, upon such grounds, the courtesies due to every citizen. We recognise fully the right of the public to employ whatever practitioner they please, and freely to dismiss one and summon another,—physician, surgeon, or apothecary; allopath, homœopath, hydropath, or mesmerist. This is a privilege most sacredly to be preserved against all assaults, from whatsoever quarter they may come. So long as we believe all parties to be honest, our duty is simply to avoid any conduct or expressions which might lead to the inference that we deem the difference in our doctrines and practice to be one of trifling importance. But the ordinary cause of our repudiation of homœopaths; that which leads us, when we feel called upon to do so, to decline all social intercourse even with them, is the violation, on their part, of all those moral restraints which are submitted to and enforced by every professional man who values his own character. *Whenever any member of our body is found practising the tricks exposed in the text, he is as rightly, and as justly, avoided by the rest, as are those homœopaths who are similarly guilty.*

THE GREAT EXHIBITION.

The first day of May, 1851, is remarkable in the annals of the human race. The homage of Royalty was paid to human skill and industry; the results of which, drawn from the stores of all nations, were spread around our gracious Monarch. This grand design, grandly and liberally carried out, and marked by the total absence of political rancour, forms one of the characteristics of the present age. Never before has the crowned head of the greatest modern Empire performed a duty so graceful in itself, as affording a tribute to, and an appreciation of, the peaceful arts. Hitherto, honours have been reserved for governors and destroyers; glory has been synonymous with the pomp and circumstance of war; while labour, bodily or mental, has been depressed to the lowest point of the social scale; as if production, and that mutual aid which is indispensable to our existence, were a source of degradation. We hail the day in which production is acknowledged to be the broad and useful basis of the social structure; and we shall look forward with hope to the time when, as in the early periods of Grecian history, the *preserver* will be honoured in an equal degree. The members of the Medical Profession who

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visit "*The Great Exhibition*," will see there more of the labours of their predecessors than the public will give them credit for; they will see the results of chemical science applied to art,—a branch of science which, until of late years, was almost exclusively in the possession of the Practitioners of Medicine; and we well know, that on the discoveries made by the members of our noble, our liberal, and self-sacrificing Profession, a very large portion of the comforts and elegancies of modern society are based. These will, of course, be ignored, as are many other benefits to society; but in the present age of progress we have no time to look back—they are, nevertheless, facts of which we may feel proud.

Passing from these indirect contributions of the Profession, the visiter will see an array of surgical instruments, of pharmaceutical preparations and of chemical substances connected with the practice of medicine. Of this portion of the Exhibition it is our duty, as chroniclers of medical and surgical events, to take notice, and it is our intention to describe such of the instruments and preparations as may appear to us deserving of special notice either for their novelty or utility. This will be embodied in a series of articles, descriptive not only of the bare results placed on the tables of the Exhibition, but also of the sources, the modes of preparation, and the uses and merits of the chemical and pharmaceutical preparations and surgical instruments that may appear to us to be instructive. Accompanying these, wood-engravings will be introduced wherever it may seem that such illustrations will aid in elucidating the descriptions. In our Articles we shall endeavour to mete out justice with an equal hand to the British and to the Foreign articles, avoiding, as far as in us lies, all national prejudices. At all events, we anticipate such a collection of surgical instruments from France and Germany as only those who have visited those countries have had the opportunity of inspecting; and we may hope to draw some useful hints for improvements in our own instruments by the comparison with those employed by different nations.

ST. MARY'S HOSPITAL.

It is not our custom to interfere with medical election squabbles; nevertheless we reprint two letters on the subject of the election of officers at St. Mary's Hospital, as it appears to us that a principle of some importance is involved. Of the intemperate and ungentlemanly style of Dr. Heale's letter we must speak in terms of unhesitating condemnation. The object of his letter to the Governors of St. Mary's Hospital is to deny that, according to their laws, Dr. Lankester, one of the candidates selected by the Committee for the office of Physician, can hold that appointment. The laws state, that "the Physicians must be fellows or licentiates of one of the Colleges of Physicians of the United Kingdom." Now Dr. Lankester holds the license *extra urbem* of the London College of Physicians, and according to our interpretation of these laws, he is eligible as a candidate; for, though a licentiate *extra urbem*, he is not less a licentiate for that. With a knowledge of this fact, we are surprised that Dr. Heale, even though he be himself a rejected candidate, should assert that Dr. Lankester is "not a licentiate or fellow of any college whatever." Should the fact of the absence of Dr. Lankester's name from the "Nomina Sociorum et Permissorum," in the new Pharmacopœia have misled Dr. Heale, that omission is entirely explained by Dr. Hawkins's letter, published by Dr. Lankester. We hope, when Dr. Heale sees his mistake, he will make the *amende honorable* which his violent and intemperate letter so much demands.

Thus much with regard to the letters before us. The question, however, arises as to whether the Governors of St. Mary's Hospital have done wisely in opening the portals of their Hospital so widely to all who present themselves. We think they have; and we think the thanks of our Profession are due to the Governors of this Hospital for not having restricted themselves, as so many of our hospitals have done, to the licentiates *intra urbem*. The hospitals of London are not for one class of licentiates to practise in, but for the diseased and wounded to receive relief from those best capable of affording it, whether they are licensed in one part of the country or another. With any legal questions arising out of collegiate rights, we think hospitals and their Governors have nothing to do. Their duty is plainly to get the best men they can to carry out the objects of their Institution.

We are grieved to see medical men jealously disputing about the respective rights of the various Colleges of their common country. This has too long been the bane of our Profession. Especially is it grievous to see licentiates of the same College attempting to revive obsolete and forgotten laws, for the sake of persecuting and injuring each other. We trust that this will be soon rendered impossible. We understand that the College of Physicians in London is anxiously seeking to obtain the new Charter, a draught of which the Profession has already seen. In this Charter it is proposed to place the licentiates *extra urbem* and the licentiates *intra urbem* upon the same footing, and to admit all the licentiates of the Colleges of Edinburgh and Dublin, practising as physicians in England, as Members. The spirit of this Charter is what should now practically guide medical men in their conduct towards each other. If this were the case, we should hear nothing of the gross attempts to persecute a distinguished and honourable member of our Profession, such as is now going on at St. Mary's Hospital.

(I.)

Sir,—As a Life-Governor of St. Mary's Hospital, I beg to call your attention to a subject that requires the immediate and serious notice of every Governor. A most outrageous and unparalleled insult has been offered to the Medical Profession and to the Governors at large, by the recommendation of a Gentleman to fulfil the office of Assistant-Physician, who possesses no legal qualification whatever; but who, at this moment, is under sentence of "Unfitness," from *the only body authorised to licence Physicians to practice in London*—namely, the Royal College of Physicians, and who is guilty of the disrespect to our Sovereign of claiming the rank of M.D., on the strength of a worthless German degree, in opposition to, and in contempt of her authority, from whom alone all honour in England properly emanates.

The laws of the Hospital enjoin, that candidates must be Fellows, or Licentiates of one of the Colleges of Physicians of the United Kingdom; and, in contempt of this law, the Medical Staff Committee have thought fit to nominate this gentleman, who is not a Licentiate or Fellow of any College whatever, as an eligible candidate to fill the office of Assistant-Physician, while they have rejected many gentlemen strictly qualified, and who, in addition to the licence of the College, which enables them to practise as Physicians, also possess the rank of Doctors or Bachelors of Medicine.

Not having been myself a candidate for this appointment, I have no personal object to gain, except to defend my professional brethren from a most intolerable outrage; and I hereby appeal to every right-minded Governor, whether he will permit the honours, which it has cost gentlemen years of study, and a vast outlay of capital to attain, to be confiscated by a Committee, influenced by a clique of medical men. I beg every Governor to attend next Friday, to which day the question is adjourned, to correct this most flagrant abuse. Important as this question is to the members of the Medical Profession, whose rights have been invaded, it is still more so to the Governors at large,

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whose magnificent Hospital, erected at such a cost of money, labour, and perseverance, is threatened to be wrested from them, and to become the vested property of a clique.

The mode of procedure will be as follows:—There is no provision in the laws of the Hospital to dismiss either a single medical man or the collective body, when once elected; there is a law, however, by which the medical men claim to examine all future candidates for appointments to the Hospital; and if the precedent be established, that virtually no medical qualification from any recognised College is required for the appointments to the Hospital, these will be at the entire command of the Medical Staff for the time being. All Members of the College of Physicians, who have any regard for their professional character, will be compelled to withdraw from the Hospital, when they find they are expected to receive for colleagues men, not only unsanctioned by their College, but distinctly and solemnly disqualified by it. The laws of their own College, which they are bound by oath to observe, will forbid their remaining. Candidates then who offer themselves to fill the vacancies, must undergo an examination by those of the Medical Staff who may remain; none but candidates, even lower in professional status than those Examiners, will submit to this ordeal, and the Governors may easily form an opinion as to what class of candidates would be likely to apply for the appointments of Physicians, when they would be selected from such as would undergo an examination into their qualifications before such Examiners.

It will matter but little how indignant the Governors may become, or how much the subscriptions may fall off; the Medical Staff, or such of them as shall have succeeded in displacing the remainder, will be in possession of the building, worth many thousand pounds. I appeal to the Governors at large whether they will consent that, to the extent of the influence of St. Mary's Hospital, every Physician in London shall be degraded from the social and Professional rank to which he is entitled, in order that those gentlemen may usurp an authority paramount to that of all the most illustrious Colleges and Universities of the United Kingdom.

Again begging your attendance on Friday next, at half-past four o'clock, I remain, Sir,

Your obedient Servant,
JAMES NEWTON HEALE, M.D.
Life-Governor of St. Mary's Hospital.

11, Westbourne Crescent, 28th April, 1851.

(II.)

TO THE GOVERNORS OF ST. MARY'S HOSPITAL.

My Lords, Ladies, and Gentlemen,—A letter having been addressed to you, signed "James Newton Heale, M.D., a Life Governor of St. Mary's Hospital," I deem it due to you and to myself, that I should reply to the statements contained in that letter. Your Medical Staff Committee have, by their Report, done me the honour to admit my professional qualifications and fitness for the office of Assistant-Physician, provided it be satisfactorily shown to the Governors, that I am "a Licentiate of one of the Colleges of Physicians in the United Kingdom," within the meaning of the Laws of the Hospital. I will not notice the irrelevant matter, nor the manner of Dr. Heale's letter, but at once put you in possession of the evidence which proves that I am a "Licentiate" of the Royal College of Physicians, London, and that Dr. Heale is in error when he states, that I am not "a Fellow or Licentiate of any College whatever."

The Corporation of the College of Physicians in London, consists of a "President and Fellows;" and under their Charter and the Act of Parliament passed in the reign of King Henry the Eighth, which confirmed that Charter, no Physician can legally practise for fee or reward within the City of London, or within seven miles thereof, without first obtaining the License so to do, of the College; and no Physician can practise elsewhere in England, without a similar licence from the College, under Letters Testimonial, signed either by the President or, by three of the Fellows who have been appointed "Elects." The first-mentioned class of Licensed Physicians are those generally described as Licentiates *intra urbem*, or Intra-Licentiates; and have no strictly legal power, *under their licence*, to practise beyond the seven miles from London: and the second-mentioned class of Licensed Physicians, are those generally described as Licentiates *extra urbem*, or "Extra-Licentiates;" and have no strictly legal power, *under their licence*, to practise within the City of London or seven miles thereof. Neither of these Licentiates, whether Intra-Licentiates or Extra-Licentiates, are, as such, members of the Corporation, or can claim a right to be admitted members. Their status in relation to the College differs in no respect whatever.

I am one of these Extra-Licentiates, as you will have observed from the Letters-Testimonial produced by me at your last Weekly Board; but, inasmuch as it has been objected that my name does not appear even among the Extra-Licentiates, in the list published under authority of the College of Physicians, the omission requires explanation. That explanation is, that the College have thought fit to exclude from the printed list, not only my name, but also the names of the numerous other Extra-Licentiates, who have no fixed residence beyond the distance of seven miles from London, and are, therefore, while resident only within that distance, legally presumed by the College not to be practising at all. In proof of which explanation I subjoin a copy of a letter which I have just received from Dr. Hawkins, Registrar of the College of Physicians, London:—

"18, Bolton-street, April 29th, 1851.

"Dear Sir,—In reply to your note I have to state, that you have been examined and approved, and had letters testimonial granted to you by the President and Elects of the Royal College of Physicians, for practising as a Physician in the country. But as you reside in London, your name cannot, of course, appear in the List of Persons *now* practising out of the City of London, and seven miles thereof. If you were again to reside and practise in the country, your name might equally, as a matter of course, be restored to that list. "I am, dear Sir, yours faithfully,

"Dr. Lankester. FRANCIS HAWKINS."

The College has never asserted a right, nor attempted to exercise a power, to recall or annul letters-testimonial which have once been given to an Extra-Licentiate, and the omission of my name in the list, can, of course, have no such effect.

For the truth and correctness of the view which I have here endeavoured to convey to you of the question at issue, I may refer to decisions of the Court of Queen's Bench, from the reign of Henry VIII. to the present time, and particularly to cases decided by the late Lords Coke, Mansfield, Kenyon, and other Judges, to be found in the Law Reports, *3 Coke*, 114A—*4 Burrow*, 2186—*5 Burrow*, 2740—*and 7 T.R.* 282. These cases will clearly refute the hasty insinuations of Dr. Heale, that I am not strictly a Licentiate of the College of Physicians in London, within the letter and meaning of the Laws of the Hospital.

With regard to my degree of M.D., which Dr. Heale states to be "a worthless German degree," I may state that it was obtained after residence and examination at the University of Heidelberg, and granted by men who stand as high in science, as eminent in their profession, as jealous of the honour of their University, and as conscientious in the performance of their duties as any of those who exercise the same high function in this country. But, at the same time, the Governors will observe, that they have very prudently and properly refrained from requiring in their laws, that a candidate for the office of Physician should be a graduate of any University, either in England or elsewhere.

If, however, I had not, as I contend that I have, proved that I am a Licentiate, and qualified to be a Candidate within the *letter* of your laws, I should have had no difficulty in proving that I and all Extra-Licentiates of the College of Physicians must have been eligible within the spirit and evident intention of those laws, inasmuch as they admit the eligibility of Physicians licensed to practise, only in Scotland or Ireland, under licenses from the Colleges of Physicians of those countries.

I could have hoped that my character and position in my Profession would have spared me this discussion, and especially as it has been thrust upon me by one from whom, as a former pupil and friend, I had a right to expect very different treatment. That Dr. Heale is actuated less by principle than disappointment, is, I think, evident from the fact, that, although he states he has not been a Candidate "for this appointment," he did seek support from the Medical Officers already appointed to the Hospital, and only abandoned his intention of becoming a Candidate when he found he could not obtain their assistance.

In conclusion, I trust that those who feel that I have truth and justice on my side will not fail me of their support at the Board-room on Friday next, and at the subsequent election. To be defeated on the ground of such an informality as that suggested by Dr. Heale, I confess, would be a severe disappointment; but should you, in the exercise of your judgment on the professional merits of the different Candidates, deem me unfit for the office, I should submit without a murmur.

I am, my Lords, Ladies, and Gentlemen,
Your obedient Servant,
EDWIN LANKESTER, M.D., F.R.S., F.L.S.

22, Old Burlington-street, April 30, 1851.

SOCIETY FOR RELIEF OF WIDOWS AND ORPHANS OF MEDICAL MEN IN LONDON AND ITS VICINITY.—The annual dinner of this Society took place at the Thatched-house, on Saturday, April 26. The Report is too long for insertion.

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REVIEWS.

Remarks on Insanity, its Nature and Treatment. By HENRY MONRO, M.D., Oxon, Fellow of the Royal College of Physicians. London. 1851.

The pathology of insanity, notwithstanding the vaunted progress of medical science, remains still involved in deep obscurity; nor can we anticipate that any satisfactory light will be thrown upon the nature of this disease until the physiology of the brain itself is better understood. With the structure and functions of other vital organs, such as those of the heart and lungs, we are tolerably well acquainted; therefore we are prepared to appreciate and trace to their proper pathological causes any symptoms of their abnormal action. But it is very different with the brain; for, notwithstanding the most elaborate and minute dissections, assisted by the most delicate microscopical observations, we really know nothing whatever respecting its connexion with the mind, of which it is presumed to be the special organ. There is, indeed, if we reflect upon it, something ineffably absurd in the way philosophers have puzzled their wits in hunting after the seat of the soul. "Here," said Descartes, triturating between his fingers the pineal gland, and feeling a little earthy matter, "here it is, I have it." "Not a bit of it," answers the learned Boerhaave; "It is either involved in the cerebral substance forming the walls of the ventricles, or else it must be in the boundary line between the medullary and cortical substance." "You are mistaken," interposes Lancisi; "its true seat is in the corpus callosum." "Wrong again," cries Willis; "it is in the corpora striata." "Not at all," retorts Sœmmering; "it is in the fluid of the ventricles." "You all deceive yourselves," exclaims Camper; "it is in the corpora quadrigemina." "No," says Digby, "it is in the septum lucidum." "Not so," cries La Peyronnie, "it is in the fornix." "Quite a mistake," adds Meyer and Metzger; "its veritable seat is the medulla oblongata." "You are all wrong," says Dr. Stevens, "the soul, surrounded by its own ethereal atmosphere, sits on its throne in the fourth ventricle. I alone am the true servant and interpreter of Nature."

In this manner has "the soul that is within us" been hustled about from pillar to post—from one region of the brain to another; in the midst of which we find other Daniels come to judgment, not a whit wiser or more enlightened than the rest. "Here," says Gall and Spurzheim, holding up the brain, "is not only the seat of the mind. Behold the pyramidal bundles of nervous matter, which are the organs of its special faculties; so that the cerebral development corresponding with the configuration and bumps of the head presents us with a complete map of the human understanding." How easy can the different phases of insanity upon this principle be explained. Does a poor creature mistake a gate-post for a God? It is because his organ of veneration is too active. Does he imagine himself an emperor or a duke?—his self-esteem is only a little out of order,—is he homicidal and "dangerous to others?" it is to be accounted for by the size of his destructiveness. All the varieties of monomania may thus, with child-like simplicity, be explained; but these and many other *pseudo*-philosophical theories have long since been consigned to the "tomb of all the Capulets." The truth is, that we must be led by the contemplation and study of mental phenomena to recognise the existence of a spiritual principle, the manifestations of which possess nothing in common with the properties of matter. The philosophical reflections of My Uncle Toby upon the skull of young Tristram coming squeezed into the world are as much to the point as any of the preceding conjectures, to one and all of which may be applied the satirical lines of old Mat. Prior, who, under the designation of "Alma in verse—in prose the mind," represents the scholastic wits of Cambridge thus fighting for the Cartesian notion:—

> "Alma, they strenuously maintain,
> Sits cock-horse on her throne, the brain,
> And from that seat of thought dispenses
> Her sovereign pleasure to the senses."

The fashionable doctrine of the present day is, that the operations of the mind are associated with the convolutions of the brain, and that the centre of intellectual action is to be referred to the vesicular matter which crowns the hemispheres. It is even alleged, that every idea of the mind is associated with some corresponding change in some part or parts of this vesicular surface, and to this purely physical cause, we are told, may be ascribed the manifestation of ideas. The excess of vesicular matter which is so often found in the brains of idiots, sufficiently militates against the validity of this assumption; but we protest against any material hypothesis being adequate to explain purely mental phenomena, and we hold that it is infinitely better to confess our ignorance than to encumber our investigations with such clumsy theories.

These observations have been suggested to us by the perusal of a work which has been just published, entitled, "Remarks on Insanity: its Nature and Treatment," by Dr. Henry Monro, the son of the eminent physician who has for so many years been attached to Bethlem Hospital. Here we find the attempt is made to prove, not only that insanity is "simply a disease of the nervous instruments of the mind," but that this disease itself consists in a certain "loss of nervous tone" consequent upon "depressed vitality."

We have not, within the limits of a review, space to discuss the question, whether insanity is purely a physical disease, or whether the mind itself may not be capable of aberration. The Author summarily enough disposes of the difficulty, and without adducing a particle of evidence in its favour, sets out with at once adopting the materialistic hypothesis. We cannot help thinking that if he had duly weighed the evidence adduced by Leuret, Heinroth, and others, he would have paused before enunciating in such decided terms a proposition which admits of so much dispute. Theorising in philosophy, like castle-building, may be a pleasant dreamy kind of occupation; but it ceases to be harmless when it is brought to bear prejudicially upon medical practice. Thus Dr. H. Monro's theory, that insanity arises, in all cases, from loss of nervous energy, caused by depressed vitality, strikes at the root of antiphlogistic treatment being necessary in any case; yet there cannot be the slightest doubt that excessive vascular action in the brain, and an undue exaltation of nervous energy, will often be found in cases of mania, and that topical bleeding has, under such circumstances, proved highly beneficial. There are, it is true, many cases of insanity to which Dr. H. Monro's theory applies; but we object to the sweeping generalization he has made, which, indeed, would reduce the treatment of every case of insanity to one plan, which would be that of invigorating the functions of the nervous system. In acute mania we have inflammatory action unquestionably going on in the brain; not only manifested by symptoms which cannot be mistaken during life, but by morbid appearances, increased vascularity, effusion, softening of the cerebral substance, opacity of the arachnoid, &c., which are discovered after death. We apprehend that in such cases, where inflammatory symptoms are sufficiently declared, antiphlogistic means of treatment should be adopted in accordance with the soundest therapeutical principles. Such is the practice of Calmeil, Foville, and a host of eminent practitioners. On the other hand, in asthenic cases, where there are obvious symptoms of nervous and vital depression, the tonic system advised by Dr. H. Monro will be found useful; we cannot, however, perceive the expediency of adopting one theory to the absolute exclusion of the other: there is no necessity in steering clear of Scylla that we should wreck ourselves upon Charybdis.

The practical remarks—those which Dr. Monro has derived from observation unfettered by any theory—constitute the most interesting portion of the volume before us; here our author is at home; he has enjoyed the advantage of seeing the disease under all its varied aspects for some years, in a very extensive asylum; and we rejoice when, escaping out of the entanglement of his metaphysical reasonings, we meet him on purely practical grounds. His remarks on the physical condition of the insane are particularly worthy of our notice. Without underrating the attention which should be paid to the state of the chylopoietic viscera, to which Pinel and other French authors have attached so much importance, he passes on to consider the state of the cutaneous system in insanity. The state of the skin in this disease has certainly not hitherto received the attention from pathologists to which it is entitled:—

"The condition of the skin," says Dr. H. Monro, "is peculiar and striking, both in the acute and chronic stages of insanity. In

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acute insanity it is frequently such as follows,—cold and clay-like, of a dusty colour, with a greasy appearance; at other times it is harsh and dried up, the brow corrugated as in low fever; and in both cases it wants the freshness and elasticity of health. At the same time there is a peculiar fætor arising from the surface, which may easily be distinguished, by those who are accustomed to it, *as the odour which is to be expected in the wards of the insane*, and which has long been a source of annoyance to myself."

Upon this point Dr. H. Monro is perfectly correct; this peculiar odour can neither be got rid of by cleanliness or ventilation, but, such is the sagacity of the Visiters,—and even Commissioners in Lunacy,—that whenever it comes in contact with their nostrils they record it with condemnation, as if, indeed, the secretions of a lunatic could be corrected and purified at the pleasure of their attendants.

"The mouth and fauces," continues Dr. H. Monro, "are parched and generally covered with sordes; and these symptoms are exhibited as much in cases where there would appear to be no heat of body or febrile tendency, as in those where this more active condition is exhibited. As the fury of the mental energies increases, so do these symptoms increase, and as the complexion assumes a proper and healthy condition, the mental violence succumbs. These changes are so markedly coincident, that it is impossible to doubt their possessing a clear relationship to each other."

The connexion between the discoloration of the skin, and its evaporating a noisome odour, is particularly noticed by Feuchtersleben, who, in commenting upon the metastasis that takes place from the brain and its membranes to the cutaneous system, notices, in particular, its dryness and dirty colour, particularly in cases of melancholia. He attributes it to the reciprocal action of a sluggish mental (psychical,) and equally sluggish secretory, action, to which may also be ascribed the pellagra which is so common in upper Italy. To return, however, to Dr. H. Monro's remarks:—

"**The state of the skin,**" he observes, "**in chronic cases, is well worthy of notice, as manifesting a depressed vitality; for we shall very generally find that the skin has not recovered that pliancy and freshness which indicates healthy vigour, even when the more marked bodily ailments of the acute stage of insanity have entirely remitted. The skin of the chronic insane has not very often that cadaverous and very stagnant appearance which I have noted above, except, indeed, when paroxysms of unusual intensity occur; but, even in these more quiescent states, the skin generally feels hard and soapy, and if you look at the cuticle you may perceive it to be cracked and horny. The complexion of persons who have been long insane, very seldom retains the beauty and freshness of health; it is often of a dull sallow colour and much mottled, and inclined to break out in pimples; the perspiratory ducts increase and give a peculiar appearance of coarseness to the skin; the extremities very frequently are cold and of a purple colour, and indicate much depression in the system.**"

If the imagination of Dr. H. Monro were not so continually haunted by the theory of depressed vitality, insomuch that he brings his favourite notion to throw a colouring over the most simple facts, his practical observations would be read with more interest. It does not follow, that because the female sex is more liable to insanity than the male sex, that therefore there is, in a physical point of view, less vitality in the female than in the male system. On the contrary, we have rather a notion that women will be found more lively and excitable; nay, often endowed with a higher degree of nervous energy than their rival and sterner sex. It is, therefore, stretching the bow very hard to bring the female sex within range of evidence to corroborate such a paradox. From the statistics of Bethlem, Dr. H. Monro furnishes us with some very interesting information. As regards seasons, it appears that hot months present more attacks of insanity than cold. In this hospital there was an increase during six summer months of about twenty per cent. admissions; that is, as 6 is to 5. The records of Bethlem do not speak well for the connubial state; for Dr. H. Monro remarks, that, "if it be true that in the general Census, the number of unmarried people is greater than that of the married, the records of this hospital show that the converse is the case, and that a far greater number of married than of unmarried people are received." The difficulty of determining the period when a person, being considered to have recovered, should be discharged from an asylum, is candidly acknowledged by our author, who states, that in Bethlem no cases are allowed to leave its walls under three months from the date of admission. Upon this subject, we remember an observation of Esquirol, that, according to his experience, more mischief is done by premature liberation than upon the whole by a too protracted confinement; but no rule on this subject can possibly be laid down.

In conclusion, notwithstanding we have, in a friendly spirit, objected *in limine* to the theoretical views of Dr. H. Monro, we fully appreciate the value of his practical observations, which communicate to us the results of an experience which very few medical men, even in this department of the Profession, have the advantage of enjoying. We, therefore, have much pleasure in recommending these "Remarks on Insanity" to the attention of the Profession.

GENERAL CORRESPONDENCE.

THE YELLOW FEVER EPIDEMY IN THE BRAZILS.

[To the Editor of the Medical Times.]

SIR,—May I request that you will have the goodness to insert in your valuable Journal, the following remarks on the Paper relative to the Yellow Fever Epidemic in the Brazils, 1849-50, lately read by Dr. M'William before the Epidemiological Society of London, and since published in the *Medical Times*.

Dr. M'William has given a series of conclusions at which he has arrived, in relation to that outbreak, which may be summed up in the opinion, that the disease was contagious and not endemial, and that it was imported. In noticing these conclusions, I beg to state, that the importation of the fever into Bahia was during its prevalence first attributed to the French ship Alcyon. In the *Dispatch* of 21st Dec., 1849, to the cleaning of that vessel; on 10th January, 1850, to some slave-vessels from the Gallinas; but the Alcyon, and the slavers alluded to, are no longer noticed in the *Dispatch* of the 19th August, 1850, in which the American brig, Brazil, is mentioned as the *third* source of its introduction. This vessel arrived on the 30th September, 1849, and on the 2nd of October following, an anonymous letter appeared in the *Correio Mercantil* of Bahia, blaming the health officers for admitting to pratique a vessel with a clean bill of health from New Orleans, where the same anonymous authority asserts, "not only the terrible cholera morbus, but the usual scourge of yellow fever, was raging;" asks, "Is there some magical difference in the houses to which the different vessels come consigned;" and alleges "carelessness, want of reflection, or bribe," against the health authorities. From the animus here shown, it was evidently written by some mercantile rival.

Dr. J. L. Paterson's first case of fever occurred on the 3rd November, in a boy living over the American store which the Captain of the Brazil had frequented from the 30th September. The President, in his opening speech to the Provincial Assembly of Bahia, 1st March, 1850, says, "that he is inclined to believe that the scourge was made a present to us by foreigners; and it is stated, with some probability, that it came from New Orleans in the American brig Brazil, which circumstance did not escape an announcement in the *Correio Mercantil;* and adds, "on board which vessel, as I am informed, and during the voyage, individuals died, attacked by yellow fever, which was raging in that American port." Here, be it observed, there is still no mention of the Havannah. On the 9th of August, 1850, we have a Report by Dr. J. L. Paterson, in which the port of the Brazil's departure is thus first called in question:—"Her papers said from New Orleans, but, as was afterwards understood, actually last from the Havannah." In forwarding these papers to the Foreign Office, the British Consul used the following expression, in allusion to the Brazil.—"Reported from New Orleans, but said to be direct from the Havannah." Dr. M'William has thought himself justified in adopting the expression, "but, as it was afterwards ascertained, actually last from the Havannah;" thus assuming as fact, that which must, on examination, appear entirely conjectural. In order to give even the smallest probability to such a surmise, we must assume the perpetration of gross fraud, amounting to forgery and connivance, by the authorities at New Orleans, Havannah, and Bahia, to say nothing of perjury by the captain. We should be careful not to impute fraud without the strongest evidence, but here there is positively none. If such iniquity could be successfully practised, it would prove that all clearances, bills of health, and declarations at the port of arrival are utterly useless, and clearly show the uselessness of quarantine regulations, which may be so easily set at

naught. (a) If the Havannah story be true, the New Orleans fiction, on which the whole fabric (as connected with the Brazil) originally rested, falls to the ground. But neither is there evidence of the prevalence of the yellow fever at New Orleans at the time,—for the vessel had a clean bill of health, and, moreover, no such information has reached the Foreign Office, which is of itself surely sufficient to counterbalance the authority of an anonymous letter;(b) —nor evidence of the captain's fraud in coming from Havannah under false papers; nor evidence of deaths from yellow fever on the passage, notwithstanding the assumptions of Consul Porter and Dr. Paterson;—consequently, nothing but the wildest hearsay to warrant the inference of Dr. M'William, that yellow fever existed on board this vessel on her arrival at the port of Bahia. I put it to Dr. M'William whether he would risk a question of the value of forty shillings on such evidence as this; yet here is a question involving, it may be, the lives of thousands of our fellow-creatures. I say that on such evidence as this, the direction of the judge must be, "Gentlemen, there is no evidence before you on which you can find a verdict; the case must, therefore, be dismissed."

But we have not arrived even yet at an attempt to prove the importation of contagion into Bahia from a sick man. We are told that the captain of the Brazil was himself in good health, and are left to infer he had been in the habit of perambulating the streets of Bahia, like a walking Pandora's box, for from twenty-five to thirty days ere the supposed "fomites" (admitted by Dr. M'William himself to have been totally ineffectual in communicating the disease to the washerwomen at Boa Vista in 1845) fell in with its first unfortunate victim, whose personal contact with the captain, by the way, has still to be established. After the erection of this extraordinary castle, however, we find it entirely demolished in a single sentence by Dr. Paterson himself, for he writes, "I have stated what I believe the fact of its importation, but as it was some time in the place before it was duly recognised, exception might be taken to the evidence." This fatal admission would seem originally to have escaped Dr. M'William's notice; but to obviate the objection raised during the discussion of his paper, he now tells us, "Since this paper was written I have heard from Dr. Paterson's brother, Dr. Alexander Paterson * * * that the case of the Brazilian boy, although his *brother's* first case was not the first case in the town." Dr. A. Paterson "ascertained beyond doubt" that the Brazil took in several Spanish passengers at the Havannah, which, on landing, took up their abode chiefly (not all, it would appear) in that part of the town of Bahia called 'Santa Barbara,' and that in this very district yellow fever broke out within three weeks after the Brazil's arrival, but its occurrence was carefully, and for a long time successfully concealed by parties connected with the Slave-trade." Dr. A. Paterson having "ascertained beyond doubt" the arrival of "several Spanish passengers," it must appear not a little singular that the President of Bahia, in March, 1850, should nevertheless have blindly held to the opinion that the Brazil had come from New Orleans, and in vague terms continue to attribute the infection at Bahia to sickness from that port. Could "several Spanish passengers" have escaped the eyes of the anonymous Argus who wrote in October, 1849, as well as the researches of Dr. J. L. Paterson and Consul Porter, acting under the special instructions from the home Government, in August, 1850, to be thus opportunely brought to the support of a crumbling edifice by Dr. A. Paterson, in April, 1851? I think myself, therefore, justified in adhering to the opinion, that the whole evidence of the importation of the disease into Bahia, is sustained simply and entirely on Dr. J. L. Paterson's belief in the "fact," which of necessity implies that yellow fever is contagious,—so resolutely has he "stood by Sir Wm. Pym."

At Pernambuco the disease is asserted by Dr. Paterson to have been imported from Bahia by the Alcyon, which arrived on December 17. This ship is said by Dr. J. Paterson to have landed four sick at Bahia before she sailed, and Consul Cowper informs us two men had died on the passage, that other sick men were sent ashore on her arrival at Pernambuco, and that one of these having died, the rest were re-embarked on December 20, and all communication with this vessel forbidden. Her sick had been accommodated in the French Hospital, situated in the quarter Sta Antonio, and the balance of probability would have been vastly on Dr. M'William's side had the disease first appeared there, or in that quarter. But as the case actually stood, the balance is only against him; for the Consul distinctly states that Dr. Paton and Mr. Pitt, the very first cases in Pernambuco, were both attended and died in the British Hospital, in the quarter Boa Vista, and that neither he (*i. e.* Dr. Paton) nor any one else at the hospital had had the "slightest communication" with the shipping. The importation into Pernambuco, therefore, does not rest on any conclusive evidence. Dr. M'William writes, "The next (the second) vessel in which the fever broke out was an English barque, called the Esther Anne, a perfect model of cleanliness." This barque was probably selected to prove that no source of disease existed within the vessel herself which could give rise to the fever, for on no other principle could she be named as the second ship, being for the first time mentioned in the despatch of January 26; whereas, on January 14, the Consul had informed us, that "of the shipping in the port, fourteen vessels, of which eight are British, have been attacked."

At Rio de Janeiro the alleged importation by the barque Navarre, which arrived from Bahia with a healthy crew, and bringing no intelligence of the fever there, three weeks and a half before the first case occurred in the town, is, to say the least, little better than the story of the Brazil at Bahia. In the despatch from Maranham, dated 8th April, 1850, we are told, that this town and province were exempt; and, as Dr. M'William says, that "ports at which quarantine measures were adopted entirely escaped the disease," are we to infer that the disease was kept out of Maranham by quarantine; or can we be satisfied that such was the case, when we consider what the quarantine regulations of Brazil were? At Bahia clean bills of health were given to the 29th January, 1850—nearly three months after the first recognised case occurred in that town. At Paraiba, we are informed in the official despatch, that, on the outbreak of the disease, the arbitrary sanitary arrangements imposed a quarantine of three days; but, so far from importation being hinted at, the Consul attributes the rarity of attacks and low mortality (given from 21st January to 23rd April) to sanitary arrangements instead of quarantine, which had been abandoned since 1st March. In Rio Grande do Sul there was one case of yellow fever at the Port of Allegre. Monte Video, Dr. M'William informs us, escaped throughout. But I find from the despatches, that the Tweed and Cormorant, English ships of war, both having cases on board, were in the harbour; and it is also stated, that in the steamer Proserpine French troops on board did not suffer, although the disease prevailed among the crew. Why was this?

I now pass to the consideration of the endemial causes proved to exist in the various ports of the Brazils in 1849-50; observing, with reference to the general surface of the country, Dr. M'William stated, that it abounds with forests, lakes, and marshes. That at Bahia the country is "low and marshy;" that the streets in the town are "long, narrow, filthy, and badly paved;" that the soils in the neighbourhood are of granitic formations; and that to their rocks the Indians ascribe the fevers of the country. At Pernambuco the weather is described as "fearfully hot," and the atmosphere in the morning appeared loaded with mist, which contrasted with its usual purity;" and the dispatch, dated January 7, 1851, contains the following:—"Dr. Sarmento states the atmosphere to be infected, for the simplest diseases have a tendency to become malignant and fatal." In Rio Grande do Sul the bilious fevers prevalent were attributed to the great drought experienced for many months.

Dr. M'William has informed us that, previous to 1849, the yellow fever had been for a century, at least, unknown in the Brazils. Now, according to the doctrine that the disease is contagious, must we suppose that no vessel from Africa engaged in the Slave-trade, or otherwise, had arrived, for a century, at the Brazils, having cases of yellow fever on board? When, however, Dr. M'William stated that "yellow fever has been for nearly a century, at least, unknown in that country," he must not only have overlooked the statements of Dr. Lallemand, but also the dispatch from Pernambuco of March 6, which states that yellow fever epidemics had prevailed in that place, in 1640, 1710, 1780, and these periods, together with the last (1850) were noticed, curiously enough, as having been each seventy years distant from the former outbreak. From Rio de Janeiro, Dr. Lallemand informs us there was a report that it had prevailed at Rio at the close of the last century; and Dr. Thomas Gomes dos Santos affirms, "that in 1808-9-10, an epidemic prevailed at Rio, the characteristic symptoms of which were the yellow colour of the skin and vomitings." Dr. Lallemand writes, "I have not the slightest doubt in my own mind that the yellow fever prevailed at Rio forty years ago." He tells us,

(a) The visits of M. Lassere to the Alcyon at Pernambuco, now mentioned by Dr. M'William, would, if proved, be quite conclusive as to the inutility of quarantine; but how can we reconcile this version of the story with the following passage from Mr. Cowper's despatch of the 27th December, 1849:—"There is no lazarette here, and no medical or any other assistance is allowed to be sent to the infected vessels; therefore, should the epidemic spread on board, the mortality would no doubt be dreadful"? In the face of such a barbarous regulation, are we now to believe that idlers were permitted to come and go at pleasure?

(b) Lest it be objected, that there being no information at the Foreign Office, is no proof that it did not exist at New Orleans, I may be excused for reminding gentlemen of the Medical Profession, that the plaintiff has to prove his case; no part of the *onus probandi* rests with the defendant.

that Rio is an almost entirely land-locked bay, little subject to the ebb and flow of the tides, and into which a series of rivers discharge themselves having "marshy mouths." "To this geographical predisposition to the yellow fever may be added a highly important climatic change which has developed itself more and more for several years past." On his arrival thirteen years ago, he was struck by the regular occurrence of thunderstorms almost daily during the hot season for six or seven years, rendering the streets impassable to foot passengers for an hour or more. He says that it was a common afternoon adieu, "till after the thunderstorm;" that four years ago these storms became less frequent, when Rio was "for the first time visited by an epidemic, *sui generis*, at the height of the hottest season;" that it prevailed chiefly among foreigners not yet acclimatised, affected whole crews of vessels, was "perfectly innocuous;" and he called it "insolation fever." It returned "with a more decided character in the two following years." He tells us, that this insolation fever, which represents with almost mathematical precision the first stage of the present yellow fever, was merely the precursor or admonisher of a more deadly epidemic; that he received a letter from Germany reminding him of his own observation in 1847, viz., "This insolation fever might easily develope itself into a perfect yellow fever epidemic, if the circumstances to which the insolation fever are ascribed were to assume a more important character; and this has actually occurred." The heat was "far greater than in previous years, and there was a total absence of storms. The sea breeze was far less frequent than formerly, a dead calm rested upon land and sea, and only a few slight showers fell occasionally;" refers to a memorandum in his private diary, 18th December, "A remarkable number of gastric fevers;" writes, "At the beginning of December a very significant disposition to the development of more aggravated morbid phenomena manifested itself at Rio. At the close of December several cases of insolation fever again occurred, at the very same time that the decided cases of yellow fever appeared in Frank's house," on the 28th December. This was a sailors' lodging-house; "the sleeping apartment on the ground-floor was very dirty, close to the Rostelberg, and many sailors were congregated in it."

One of the first sailors attacked happened to have belonged to the Navarre, which had arrived at Rio on the 3rd December, after a voyage of "eight" or "twelve" days from Bahia. She had no cases on board, nor brought any account of the fever.

The sailors from the Navarre (for the vessel was paid off and sold immediately on her arrival) would appear to have been three weeks or upwards living in the focus of the poison before becoming infected. Quarantine might have saved the lives of these poor men by keeping *them* from the town, but could not have kept the *fever* from the town. All diseases at a seaport must of necessity be preceded by the arrival of *some* vessel.

I may observe, that the Report of Dr. Lallemand did not emanate from his own desire to write, but was furnished in answer to certain questions forwarded to him by Sir W. Pym from England. These queries, bearing the signet of the Privy Council Office, were really supposed by Dr. Lallemand to have been put to him by the "British Cabinet!" The first question was, "By what vessel was the yellow fever supposed to be introduced into Rio de Janeiro?" and the second, "From what place had she arrived." Now, Sir, upon these leading questions, from such powerful authority, how could Dr. Lallemand avoid the inference that the fever had been brought to Rio by some vessel—how could he help finding one, when it was so directly implied that it must be so? But I contrast the opinion of Dr. Lallemand in favour of contagion with his acts. I believe that he never would have given an opinion favourable to contagion, but for the opinion of the "British Cabinet." He tells us that a bad character had been given to the hospital—that many more deaths occurred there than elsewhere; and states as a reason that numerous patients were sent thither in the last stage of the fever only to die—that in the midst of this he entreated all the Consuls and "foreigners of distinction" to visit his hospital—to come and see how the sick were treated and cared for. Are we to suppose that he had a design upon these "foreigners of distinction?" Did he wish to murder them in cold blood? One visitor only came, but this was not the representative of Christian England. It was the Russian Ambassador Count Von Medem, who "conversed fearlessly with the individual patients, and remained a long time in the sick wards." "Unhappily, this distinguished man found none to imitate his example."

Dr. Lallemand affirms, that it is quite decided that the fever was incommunicable in the elevated settlements; "not a single case is recorded of any individual having come from Rio, and having conveyed the disease from that place to another person who had *not* been in Rio." At Petropolis, at an elevation of 1200 feet only, "there was not the slightest apprehension of infection, and this under the same roof with yellow fever patients," (30 of whom died in one hotel) "with whom they came into continual personal contact."

The *Dispatch* of 12th May also contains strong evidence of the endemial source of the disease. The Consul therein complains, that the Inspector of Customs at Rio having ordered the merchant-vessels to return to the usual anchorage near the shore, the yellow fever, instantly again made its appearance in a virulent form on board those ships, which had previously almost ceased to attack the seamen while the vessels were at a greater distance from the shore.

The manner in which Dr. M'William has culled from the Reports the various passages favourable to the doctrine which he espouses must be obvious to every one, as he has been careful to revert more than once to the alleged healthy state of the coast towns of Brazil immediately preceding the outbreak of the epidemic; for though he notices, he ignores, the statements in the Report of Dr. Lallemand, entirely overlooks that of Dr. Sarmento, in the Dispatch from Pernambuco of January 7, and that from Rio Grande do Sul regarding the prevalence there of bilious fevers, only mentioning the solitary case of yellow fever at Allegre. Dr. M'William's fairness in extracting from the documents before him may be further illustrated by his quotation from Mr. Lee, referring to the appearance of the disease in the Rua da Misericordia at Rio de Janeiro, and its spreading along the shore, attacking vast numbers who inhabited the "localities immediately contiguous to the loading ground of the merchant-shipping. From these spots it quickly spread over the city, attacking all classes." Here Dr. M'William abruptly leaves Mr. Lee. I will supply the conclusion of the passage from this Report:—"the first cases were observed in the middle of February, and by the middle of March numerous fatal cases were occurring in all parts of the city. It now extended to the suburbs, and gradually to places one, two, and three leagues from the city; many who lived out of the city, and who took every precaution, and some even went so far as to refuse to visit or receive visitors, 'and yet they were attacked with fever and many died.'" Could it be that Dr. M'William overlooked this passage in a voluminous Report? The document occupies little more than three pages of foolscap! It would be trespassing too much upon your space, Mr. Editor, to point out all similar omissions of *unsuitable* passages in the various dispatches; I will, therefore, quit the subject.

So far, Sir, from "the general healthy condition of Brazil immediately before the outbreak of the late epidemy," we find that, at the time the epidemic was raging, the atmosphere was peculiarly morbific; that the climatic change which had been gradually taking place had deprived the town of Rio of that thoroughly cleansing process which had formerly been effected during the daily thunderstorms in the hot season; that, in consequence of this climatic change, fever, which no one can doubt was the ordinary remittent of warm climates in a mild form, had been gradually becoming more frequent and severe; that four years previously it had been predicted by Dr. Lallemand, that, under certain peculiar circumstances, this mild fever "might easily develope itself into a perfect yellow fever epidemic; that these very circumstances actually occurred; and, that the prediction was verified; for the "insolation fever," or mild remittent, which had prevailed for the last two or three years did, during the "fearfully hot," misty, unhealthy season of 1849, assume that much more malignant and aggravated type which is usually called the yellow fever. We find that, in order to get this malignant fever, the ships had to anchor close in shore; and the inhabitants of the villages were obliged to come into the town, for that it neither prevailed on board the vessels whilst they were at a distance from the shore, nor could the infected inhabitants from the infected town of Rio infect those who continued in their own healthy district, though in constant communication with the sick.

If such a disease as this be contagious, we may safely affirm that all diseases are contagious, however simple in character and causation. Those who uphold the system of quarantine and segregation, adopt that hateful language, "Stand by thyself; come not near to me; for I am holier than thou."(a) Their opponents, on the other hand, on the arrival of an infected ship at a healthy port, would say:—Here are strangers, let us take them in; they are sick, we will tend them; they are imprisoned in a poisoned, loathsome, and deadly atmosphere,—we will bring them forth into the free air of heaven, and they shall share with us the breath of life.

I am, &c. THOMAS BAKER.

St. John's-road, Fulham.

(a) Isaiah lxv. 5.

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SCOTCH DIPLOMAS.

[To the Editor of the Medical Times.]

"Oh, when degree is slaked,
Which is the ladder of all high designs,
The enterprise is sick!"

SIR,—A glut in the Profession has brought down the market value of us Doctors; and it seems as if demand and supply were left to adjust themselves according to the strictest notions of the political-economy school.

In a borough town, where I practise, with a population over 20,000, chiefly engaged in fishery, with a small Mediterranean and a larger Baltic trade, and a very considerable home trade in spirits, ale, and porter, (judging from the number of gin-shops and taverns,) a full average of professionals in the law, a few persons with broken-down fortunes who come hither to economise,—most of the larger houses divided to suit the slender means of small folk, with an enormous up-growth of tenements and cottages,—in this description of town are not fewer than six Doctors, and one Doctor more, hardly beyond the limits of the parish.

Fees here vary from half-a-crown to half-a-sovereign, or nothing. The names of most of these worthies figure on one or both doors. You may see a curious instance of the name of one M D. on the window blind, (there dropping the Dr.,) and appearing as the partner of a general practitioner, who dispenses, while on his own house-doors "Dr." shows. On another M.D.'s door, you may read, on each side, "Advice gratis between the hours of —— and ——." On another M.D.'s door is lettered, "Registrar of Births and Deaths." Besides these Doctors, are about a dozen General Practitioners, and an Apothecary or two with retail. Most of these drive the day through, Sundays and working-days alike, till there is no escape from the noise of their vehicles,—sometimes dragging wearisomely to and fro, at other times furiously urged as if on some sudden emergency, and at all times constituting a street-nuisance, far greater, I do not hesitate to say, than the advertising-vans or the horse-organs in London. This restless activity proceeds, I opine, on the principle, that

"Things in motion sooner catch the eye
Than what not stirs."

Now, Sir, in this pell-mell struggle, is it not, I ask, more reputable to strike Doctor, brass-plate, and all?

These doings act as a perpetual irritant to one's mental and physical repose.

There is an old adage, "It's a dirty bird that soils its own nest;" and some may have feathered their nests, and made dirty work with it; but I have not done so. I have throughout stuck to the half-sovereign,—no half-crowns or crowns, and have lost my patients, and a good riddance have thought it. I have returned shabby midwifery fees, refused half-sovereign assurance office fees; have eschewed all connexion with druggists; in truth, have done my utmost individually to maintain the golden rule in taking fees.

But, Sir, in respect of fees, of a truth "the specialty of rule has been (wholly) neglected" by others; and he who cannot force himself to this degrading competition, makes but an indifferent stand against such sweeping innovations. The world does not hold cheap physic, any more than cheap law, to be an evil *per se*, and patients are apt to be niggardly. When ill, their claims are urgent and immediate, yet they are ready enough to count the half-crown visits when well, and chuckle over their bargain. What is sport to them is ruin to us who adhere to the golden rule in fees.

But one has never been used to associate so cheap a market as this, in physic, with an M.D.'s diploma. Now, Sir, what I ask is this: Cannot the nuisance of Scotch degrees be put down? Cannot a ban be set on all foreign diplomas? Do, Sir, urge the Legislature, which alone can save our degraded Profession, to reduce to order

"This chaos (which,) when degree is suffocate,
Follows the choaking."

We doctors are in truth become a bye-word, a laughing-stock, a butt for every fool to tilt at. Would that the Scotch universities were made what they are eminently fit to be—schools of medicine—as our great metropolitan and provincial institutions!

Flourish Oxford and Cambridge, which have not sold their birthright,—have not trafficked in cheap degrees. Spare Edinburgh for the sake of her ancient celebrity. Spare Dublin,—she has not made doctors Scotch fashion. Flourish London University, which has so worthily conferred her honours. Besides these universities for granting degrees in medicine, let there be one Faculty in London, in Edinburgh, and in Dublin, having like powers, and agreed upon one system of examination.

The Colleges of Physicians and Surgeons will, in effect, become one Faculty when the glorious changes already made and now contemplated (all arrested, it is true, and not given *proprio motu*) shall receive the assent of Parliament.

In common with many others, I hail this prospect with the liveliest satisfaction, having been throughout opposed to an Institute of Medicine, Surgery, and Midwifery. In the columns of the *Medical Times* I have entered my humble protest against this last scheme.

Some change is required to save the Profession from falling from the "lowest depths into a lower still." The foregoing suggestions would, I believe, make order reign where now all is confusion; and the next generation might reap the fruits of good deeds done by reformers wise in their time.

With other towns, I fear, it fares little better than with us; and the above sketch, Mr. Editor, surely presents a state portending utter destruction of that decorum and high respectability which were wont to characterize the Profession of medicine.

I am, Sir, &c., M.D., Edin.

STATISTICS OF PRISON DEATHS.

[To the Editor of the Medical Times.]

SIR,—The accompanying Table will show the deaths in this prison to average much less than Dr. Forbes Winslow stated in a recent number of the *Medical Times* (page 411).—I am, &c.

W. C. WALKER,
Surgeon to Shepton Mallet House of Correction.

The Number of Prisoners Committed to the Shepton Mallet House of Correction in 1846, 1847, 1848, 1849, *and* 1850. *The Daily Average, and Deaths in each year.*

Date.	Committals.	Daily Average of Prisoners.	Deaths.
1846	749	147	2
1847	981	143	3
1848	1147	177	1
1849	1126	184	2
1850	867	170	2

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. HODGSON, Esq., F.R.S., President, in the Chair.

ON THE APPLICATION OF THE HEAT OF ELECTRICITY IN PRACTICAL SURGERY.

BY JOHN MARSHALL, Esq., F.R.C.S.,
Assistant-Surgeon to University College Hospital.

The author narrated a case of fistulous perforation of the right cheek occurring in a young man, twenty-five years old, of a strumous habit of body, and resulting from a succession of abscesses. The fistula passed tortuously backwards through the cheek; it was 1¼ inches long, and just admitted a fine probe. The case had been under treatment several months when he became an out-patient at the hospital; and, after two months' careful trial under the care of the author, without the fistulous passage becoming closed, the following plan was adopted:—A fine platinum wire, 1-50th of an inch thick, was passed through the fistula in such a manner that its ends could afterwards be connected with the poles of a Groves's battery, consisting of four cells, each having a platinum surface of 32 square inches. The heating power of the battery on such a wire being very intense, the galvanic current was kept up for nine seconds; but little pain was felt from the action of the heated wire; a tubular slough appeared at both orifices of the fistula; that on the inner orifice came away on the fifth day after the operation; the outer one was separated on the sixth day. On the eighth day the inner opening was closed; on the eleventh, the outer opening was also closed, and the whole track permanently healed. A smaller sinus, of a fistulous nature, was discovered some days afterwards on the inner surface of the cheek; and, by a repetition of the operation, this was also cured within a fortnight. The author has been induced, by the facility of application and success of the *electric cautery*, to employ it as a cauterizing agent in painful fissure of the anus, and also for the

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purpose of dividing the soft parts, in cases of rectal fistulæ, and in the removal of both internal and external hæmorrhoids, and of a vascular growth from the female urethra. The details of these cases, the general results of which are satisfactory, will be communicated on another occasion. He anticipates that the electric cautery will occasionally be found advantageous, as compared with the knife, scissors, or ligature, in certain other cases where morbid growths require to be removed, as, for example, in polypus of the uterus or rectum, and in cancer of the tongue; and perhaps, also, in the attempts to obliterate varicose veins.

ON THE BENEFIT DERIVED FROM THE INHALATION OF CHLOROFORM IN A CASE OF PULMONARY CONSUMPTION.

By T. SPENCER WELLS, Esq., F.R.C.S.,
Surgeon Royal Navy.

The case was that of a nobleman, thirty-seven years of age, who had suffered from symptoms of phthisis for more than two years, and who passed the winter of 1849-50 in Egypt and Italy, under the care of the author. During the month of May, 1850, the patient being then at Rome, the extreme violence of the cough and the very oppressive dyspnœa, uncontrolled by the usual remedies, suggested the trial of chloroform. The effect of the inhalation was very successful, and every repetition of its use was equally so; and during the remainder of the patient's life,—about seven months, great alleviation of suffering was obtained from its use, without any ill effects being observed. At the especial request of his patient, the author has been induced to publish the account which the paper contains. He has likewise used the inhalation of chloroform with advantage in two cases of spasmodic asthma; and is altogether sanguine in his expectation that this agent will prove a valuable palliative remedy in such cases.

ON THE INHALATION OF CHLOROFORM; ITS ANÆSTHETIC EFFECTS, AND PRACTICAL CASES.

By ROBERT DUNN, Esq., M.R.C.S.

Before entering upon the consideration of the physiological effects of the inhalation of the vapour of chloroform upon the nervous centres, the author deems it expedient to premise some observations on the functions of the nervous centres themselves, with a view to the better appreciation of the application of chloroform to practical purposes. After stating the generally admitted three-fold division of the nervous system, into the physical, or excito-motory and reflex,—the nutritive and secretory, or ganglionic; and the sentient, psychical, and voluntary, or cerebro-spinal system, he maintains that there is no point in physiology more clearly made out, than that the great hemispherical ganglia are exclusively the seat of perception and its associate memory—the centre of intellectual action, and of all the operations of thought,—"the sole receptacle," in the language of Cuvier, "where sensations become perceived and consummated," formed into ideas by their ganglionic action, and where the will exerts its power; but that they are neither the seat of sensation, nor of motion. Of these, the former has its seat in the sensorium commune, or collection of sensory ganglia; and the latter, or motor power, in the corpora striata, and anterior segmental ganglia of the spinal cord. Sensation is an act of simple consciousness,—an attribute of the sensorium, and not of the cerebrum. The author says, "sensation and perception ought not to be confounded; the functions are perfectly distinct, and have their seats in different nervous centres. The former is sensorial, and affected through the direct agency of the sensory ganglia; the latter is mental and exclusively cerebral. The mechanism (so to speak) of their action, is different. While, in sensation, it is direct and single, each sensory ganglion responding directly to the stimulus received, or impression made on its ganglionic centre; in perception, a double ganglionic action is involved. The various sensations or impressions of the sensory ganglia, as the first step in the process, are transmitted through commissural connexions to the hemispherical ganglia; and there, as the second step, become converted by the ganglionic action of the cerebrum into ideas, which furnish incentives to intellectual action, and materials for thought. The corpora striata, thalami optici, and corpora quadrigemina, he says, are distinct cephalic ganglia, each exercising a different function, and that they, with the nervous centres of the special senses and the cranio-spinal axis, constitute the nervous apparatus of automatic life. The thalami optici and posterior segmental ganglia of the spinal cord, are the great centres of tactile and common sensation; the corpora quadrigemina are not simply the ganglionic centres of vision, but also of simple emotional impulses, readily excited into action by sight, and independently of the cerebrum. He maintains, that the sensory ganglia are the seat of the emotional feelings, or, in other words, of the feelings of pleasure and pain associated with the emotional states; but he thinks, with Dr. Carpenter, that the true emotions, like the moral feelings and the animal propensities, are of a composite nature, involving an intellectual element, in all of which the feelings are of sensorial, and the ideas of cerebral, origin. The author then proceeds to inquire what are the feelings experienced, and the phenomena observed, during the slow and gradual inhalation of the vapour of chloroform. On this subject, he adduces the testimony of Dr. Snow, and after giving the different degrees of narcotism noted by Dr. Snow, and the quantities of chloroform required to induce them, he goes on to trace the order and sequence of the effects of the inhalation upon the different nervous centres. The sensory and motor ganglia are the first to come under its influence. Sensation is suspended, and immunity from pain secured, while some degree of intellectual consciousness is still persistent. The function of the cerebrum, in the centre of intellectual action, is the next arrested, and coma supervenes,—a total abolition of consciousness, reducing life to a series of automatic movements; after this, the medulla oblongata and true spinal centres become involved. The ganglionic system is the last to be implicated; but, with the arrest of the peristaltic action of the heart, life ceases. He next considers the conditions necessary to secure uniformity of effect, and perfect safety to the patient: these are, that the chloroform be pure, and that the mode of inhalation be slow and regular, with a proper dilution of atmospheric air; and he avers, that there is not a single fatal case upon record where these conditions have been rigidly observed. The sources of danger are pointed out. The eye of the administrator ought never to be off the face of the patient. Chloroform destroys life as certainly as carbonic acid, if respired until the excito-motory and ganglionic systems come fully under its dominion. In the succession of effects, during its slow and gradual inhalation, the ganglionic system is the last of the sequence to become involved, and the contractions of the heart the last of the vital action to be arrested; but the order is reversed when the lungs have been suddenly overcharged with the undiluted vapour, and the patient may die from the direct effects of the chloroform upon the heart, before insensibility has been produced, and the nervous centres of the encephalon affected. As the inhaled chloroform is again eliminated from the blood, and passes off unchanged by the lungs from the body, the author considers it may be fairly inferred, that it acts in its integrity as a whole, and not by its separate elements, upon the vesicular matter of the nervous centres; and that beyond the direct and immediate effects produced by its presence in the blood upon these centres, no lasting ulterior or injurious effects can reasonably be expected to result from its use. Its range as a therapeutical agent is in consequence limited, and its effects often transient; but, present relief from pain is a boon to the sufferer, and its modus operandi in regard to the different nervous centres, points plainly to the class of medical cases in which it has been found to afford relief. Neuralgia, spasmodic asthma, delirium tremens, hysteria, hysterical and puerperal, and some other forms of mania,—certain convulsive and spasmodic affections,—puerperal convulsions, chorea, epilepsy, and tetanus, are noticed, in which it has been administered with advantage. Still the author remarks, it is chiefly, if not entirely, in the great majority of such cases, as ancillary to the adoption of more efficient curative measures, that we can view it in the light of a therapeutical remedy. But for the induction of anæsthesia, chloroform is a most valuable agent, and one which, for many obvious and cogent reasons has superseded the use of ether in surgical and obstetric practice. Its use in operative surgery and midwifery is next considered; and a distinguished Fellow of the Society, the late Mr. Liston, is mentioned as the first person in this country who tested the value of anæsthesia in the capital operations of surgery. He hailed with enthusiasm the announcement from America, "that a new light had burst upon surgery, and that on mankind a large boon had been conferred."

The use of chloroform in midwifery has given rise to much discussion, and the author considers, that properly and fully to appreciate its value, its effects must be studied in their relation to the physiology of parturition. Great light, he says, has been thrown upon this latter subject by the researches of Dr. Robert Lee and Dr. Marshall Hall,—by the former, in regard to the nervous endowments of the uterus itself, and by the latter, as the expounder of the doctrine of reflex action. In the sequence of effects from the inhalation of chloroform, as the spinal and ganglionic systems, on which the parturient act essentially depends, are the last to come under its dominion, he considers we run no risk of seriously interfering with or of arresting their action, if we use common care and ordinary prudence in its administration. In cases of excessive motor action, with a rigid and unyielding condition of the os uteri passages and outlet, the advantages arising from the induction of anæsthesia are great. In instrumental

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midwifery, and in cases of turning, when the patient is nervous, restless, or unmanageable, chloroform presents a valuable auxiliary. The fact, that immunity from pain may be secured without the suspension of intellectual consciousness, ought never to be forgotten in obstetric practice. In conclusion, the author says, that in ordinary and normal labour, as a general rule, he is strongly inclined to the opinion, that anæsthesia is uncalled for; but that there are other cases, preternatural and instrumental, in which its induction is a most desirable procedure, alike to the accoucheur and his patient.

Dr. A. Sutherland observed, that he had used chloroform in two cases of epilepsy, attended with the aura epileptica, with a beneficial result. In one of these cases the fits were kept off for two years; in the other for not quite so long. He had tried chloroform in maniacal cases at St. Luke's Hospital, and had found that it would quiet and subdue the excitement for a time, but could not effect a permanent cure. Within the last six months he had known it cause puerperal mania in three cases.

Mr. Barlow spoke in terms of great praise of the paper before the Society; but he thought the author had not dwelt on the danger attending its use as much as he ought to have done. He (Mr. Barlow) could not think that all the fatal cases that had occurred were caused by carelessness in the administration of the drug; but believed that death in some of these cases might have happened under the hands of the most skilful administrator,—even of Dr. Snow himself. In such instances he thought there was some peculiarity in the state of the individual, or in the condition of the muscular fibres of the heart, to which the fatal result might be as fairly attributed, as to carelessness in its use. Dr. Sibson had shown that when chloroform is used the heart receives through the blood a large proportion of it, and its muscular action is influenced by it. In cases of fatty degeneration of that organ, which may exist to a considerable extent without its being diagnosed, the exhibition of chloroform may cause a fatal result. He agreed, however, with Mr. Dunn as to the generally harmless qualities of the agent; but the fatal accidents which have occurred from its use should teach caution. With respect to its influence on tetanus, referred to by Mr. Dunn, it seemed to vary much in different cases. In a case of that disease, in which he had used it himself, the spasms were subdued for a time, and a perfect calm followed, but without ultimate benefit to the patient. The same result followed in a case treated by Dr. Snow. In other cases, however, the consequences of its use were much more serious, as in those under the care of Roux and Paget. In the case treated by Mr. Paget, the symptoms under its exhibition were so frightful, that he was obliged to abandon it altogether.

Mr. Hodgson asked Dr. A. Sutherland to furnish the Society with some account of the cases of puerperal mania which, he said, had been caused by the inhalation of chloroform. He (Mr. Hodgson) thought the fact was a novel one, and of great interest.

Dr. A. Sutherland, in reply, stated that one of the cases was that of a lady, who inhaled the drug on account of epilepsy; while the nurse was absent one day, she used a very large quantity of it, and the symptoms of puerperal insanity set in in consequence. In the second case the patient was the wife of a medical man; he (Dr. A. Sutherland) had administered the drug himself, and with a similar result. In the third he had to rely on the evidence of the medical practitioner under whose care the patient was, and he had informed him that the attack of mania was the result of the inhalation of chloroform.

Dr. Heale remarked that from the results of his experience, and of the experiments he had made, he was led to doubt the propriety of exhibiting chloroform in cases of convulsive and hysterical disease, as he had always found, that in persons suffering from hysteria, that complaint was greatly aggravated by its use. He had ascertained, by direct experiment, made by passing a wire of gold, platinum, or copper in the carotid artery of one side of the neck, and in the jugular vein of the other, and connecting their ends to a galvanometer, that there is excited a galvanic current in the circulation, which, under the influence of chloroform, became gradually slighter and more feeble, and finally ceased altogether, just before death occurred. This current is reversed in arterial and venous blood withdrawn from the body, and placed in galvanic relation with each other, during the process of coagulation.

Dr. Sibson said, there could be no question that the rapid distribution of chloroform to the muscular fibres of the heart, tends to induce paralysis of that organ; but he could not think that any danger attended its administration, cautiously conducted on the sound physiological principles advanced by Dr. Snow. He had at first thought that Dr. Snow was in error on these points, but he was now satisfied that if his directions be fully carried out, and the patient be a healthy person, no harm will ensue. In cases of fatty degeneration of the heart, of course, death may ensue from the use of chloroform, in spite of the greatest care. Dr. Sibson then proceeded to commend Mr. Dunn's paper, but said there was one point he had omitted to notice,—the action of chloroform on the nervous peripheries, which can be paralysed by its local application. He had noticed this effect in his address to the Provincial Medical and Surgical Association, and he thought it was a subject requiring consideration, before the action of chloroform, and of other narcotic poisons generally, on the nervous system could be completely understood. In local anæsthesia, the arrest of reflex action does not commence in the nervous centre, but at the periphery. It has been shown that continuous muscular movements are due to the excitement of the spinal marrow, and the interrupted movement to the excitation of the nervous periphery. Thus, in tetanus, the permanent muscular spasm is owing to the excitement of the spinal cord, and the same condition obtains under the influence of chloroform, unless it be slowly exhibited.

Dr. Snow said, that, if Mr. Barlow's opinion were correct, that danger attached to a certain extent to the administration of chloroform, it would greatly diminish the value of the anæsthetic; for the apprehension of the risk of death, however slight it might be, would take away half the boon. He did not agree with Mr. Barlow, in believing that these accidents might occur in skilled hands; with one exception, they had all happened with persons not accustomed to use it. In the exceptional case, the patient had scarcely begun to inhale, and death was the result of fright, fatty heart, and diseased liver. The effects of this drug are tolerably uniform when exhibited with care and watchfulness; and any patient can be made insensible in half a minute. In most of the fatal cases, there is evidence of want of skill: the first quantity used fails to induce insensibility; a second dose is given, and proves fatal. In one case, half an ounce was used without causing anæsthesia.

Dr. Copland remarked, that it was admitted that chloroform should not be used in cases of organic disease of the heart; yet it was employed to relieve neuralgia, which was frequently caused by organic disease of the brain. He was surprised at not hearing any notice of its effects on the lungs. In the first paper it was said to be of service in spasmodic affections of the air passages; that might be the case; but in other pulmonary maladies it was injurious. Congestive pneumonia has caused death in some cases after the use of the drug, and was attributed to its action. He himself had seen two cases of that disease caused by the inhalation. In one of these, the patient did not recover for six months.

After a few words from Mr. Dunn, the meeting adjourned.

[The next meeting will be held on the 13th inst.]

MEDICAL SOCIETY OF LONDON.

Dr. Murphy, President, in the Chair.

ORBITAL EXOSTOSIS.

Mr. E. Canton exhibited a specimen of orbital exostosis which he had removed from a female who applied to him at the Royal Westminster Ophthalmic Hospital. The patient is between twenty and thirty years of age, and in good health. She stated that seven months since she noticed that her right eye began to protrude, and from that period to the present, the projection was steadily on the increase, at the same time that the organ was directed outwards. No pain was felt; vision was perfect, but the disfigurement was so detrimental to her, as a servant, that she was anxious for its removal. On examination, it was found that, besides the symptoms mentioned, the orbital ridge was increased in thickness, and a hard tumour, continuous with it, passed downwards and deeply backwards into the orbit, so as to press upon the upper and back part of the eye, and cause a projection of the latter. Mr. Canton, having placed the patient under the influence of chloroform, made

an incision from the external to the internal angular process of the frontal bone, in a semicircular form, immediately below the eyebrow. The integuments, orbicularis muscle, and palpebral ligament having been cut through, the dissection was continued into the orbit and around the tumour, so as to free the latter from the neighbouring and adherent soft parts. A small chisel was then used, in accessible situations to the bone of the tumour, which by degrees became detached from the orbital plate, and was withdrawn from between the latter and the upper and lateral part of the eye. Sutures, plaister and water dressing were applied, and the patient recovered in a week, not having had a bad symptom. Vision on the affected side is nearly as perfect as on the sound one. The tumour is bony, about the size of a walnut, very heavy, and formed, towards the periphery, of compact bone; whilst within, the structure is of a close reticular character. The size of its base is equal to the surface of a shilling. The compact part of the tumour shows, under the microscope, some very large Haversian canals.

VENOUS MURMURS.

Dr. Ogier Ward read a paper upon "Venous Murmurs."

The author began by mentioning the discovery of the sound by Laennec, who, though he had a suspicion that one kind of murmur resided in the jugular vein, yet was more disposed to attribute the various murmurs heard in the neck to the arteries, and to the bruit musculaire in the platysma and mastoid muscles. M. Bouillaud, who next took up the subject, having attributed the murmurs solely to the arteries, Dr. Ogier Ward was induced to investigate the subject in 1836, and he established it as an indisputable fact, that the sounds in question were produced by the veins alone, though they were modified in the internal jugular veins, by the vicinity of the carotid arteries. These conclusions of the author were afterwards confirmed and extended by Dr. Hope and the Committee of the British Association, with a few unimportant exceptions; and were generally admitted by British physiologists, though the French pathologists still adhered to their former opinion. However, in 1843, M. Aran published an elaborate paper on the subject, and induced his countrymen to yield to him an assent which they had hitherto denied to foreigners. From that time the venous origin of the murmurs has been gradually acknowledged in France and on the Continent generally. The author described the cause of the sound as being the quicker flow through the veins of blood of abnormal tenuity; and the difference in the tone of the murmurs produced by pressure on the vessel, to the formation and acceleration of currents in different directions in the vein below the point of pressure. The difference in the sounds produced by shaking oil or water in a bottle is a familiar illustration of this fact, which has been also established by numerous experiments, from which the following law has been deduced, viz., That the increase in the sound is directly as the velocity, and inversely as the density of the fluid. Whenever, therefore, the density of the blood is reduced below a certain standard,—which, however, varies with the individual,—venous murmur is the consequence. Venous murmurs are of two kinds, continuous and remittent; the former is heard in solitary veins, as the external jugulars; the remittent murmur is heard in the venæ comitantes, in which the sound is augmented and remits synchronously with the beat of the artery, which modifies it by its pressure on the vein. The external and internal jugular veins afford the best and readiest examples of the sound, from the current of blood being quicker through them in consequence of their ordinary perpendicular position; but the sound ceases in the horizontal posture, or if the head be lower than the body. On the other hand, the sound is increased, and its tone rises to what is called the "musical hum," by slight pressure of the stethoscope, by which the rapidity of the venous current is augmented; and also during inspiration from the influence of the same cause. In examining the murmurs care must be taken to avoid confounding the remittent venous sound with the intermittent bellows murmur that is often heard in the carotids. All observers, both in this country and on the Continent, except the British Association Committee, concur in confining the existence of venous murmurs to persons of weak constitutions, or suffering from disease or loss of blood. Hence it is met with universally in chlorotic and anæmic subjects, whose blood is deficient in several of its constituents, but especially in red globules. Quotations from the works of Bouillaud, Andral, Gavarret, Becquerel, and Rodier, and their analyses of the blood of such persons, were given by the author in support of his statements. Dr. Ogier Ward, however, having remarked the frequency of the venous murmur in children, whether anæmic or florid, was induced to make a number of observations upon them, and the result he has obtained is, that *all children, male or female, under seven years of age, exhibit the venous murmur.* Above the age of seven or eight years it begins to cease in the boys, but in the girls it generally continues till after puberty and the establishment of menstruation, whether the person be pale or florid. The author has not been able yet to establish the average period of its cessation, either in boys or girls, but, from the frequency of its occurrence in adult young women, he believes that a very slight derangement of the general health is sufficient to produce it in them. The greater proportion of water in the blood both of children and females, he considers a satisfactory explanation of these facts. There is, however, so great a discrepancy in the analyses of the blood taken from such patients, that no exact limits can be assigned to the variations consistent with the health of the individual, as determined by the presence or absence of the venous murmur. From these statements it is evident that, with the exception of children, the existence of venous murmurs offers a pretty sure guide to the diagnosis and treatment of various diseases attended with a change in the condition of the blood. In the adult, the author has never met with a case in which tonic remedies were not useful, especially iron, unless the patient laboured under some form of disease that counteracted its influence. The selection of the preparation of iron best adapted to the case, must be guided by observation of other attendant symptoms. From a wish not to occupy too much of the time of the Society, the author declined entering upon the special applications of venous murmur to the diagnosis and treatment of disease.

STATISTICAL SOCIETY OF LONDON.

The Right Hon. Lord Overstone, President, in the Chair.

SANITARY STATISTICS OF THE METROPOLIS.

A paper on the "Sanitary Statistics of the Metropolis" was read by R. Thompson Jopling, Esq., embodying several important and very interesting observations connected with its sanitary condition.

In section first Mr. Jopling directed attention to this subject, as presenting a wide field for future investigators; and pointed out that, until a comparatively recent period, it had been almost wholly neglected, mankind, in short, appearing indifferent or ignorant of the powerful action exerted on longevity by the physical agents of life. The first and most interesting subject to which attention was drawn was that of population, as bearing on national prosperity. It was shown, that at the completion of the nineteenth century the number of inhabitants of this metropolis will have reached the enormous amount of 4,816,062, presuming the ratio of increase to continue the same as at present, viz., 1·515 per cent. per annum. To accommodate this mass of human beings, there will be required 160,535 acres of ground, containing 650,819 houses, as shown in Table 2, being an increase in size of more than double the present area of London. The results of Table 3 exhibited, that the daily consumption of water will average 101,137,302 gallons; *an amount wholly beyond the present means of supply.* Should the Thames at this period remain the common sewer of the metropolis, we shall have flowing into it daily, no less a quantity than 2,408,031 gallons of sewage, an amount of excrementitious matter which, with the daily abstraction of 101,137,302 gallons of water for domestic purposes, will render the river little better than a pest spot. Some remarkable results were shown as occurring in the rates of mortality between the metropolis and England and wales, and that the deaths in London are upwards of 15 per cent. greater than those of England and Wales collectively. The period of life most fatal in the metropolis is during the first five years of existence; in the first it is 15 per cent.; and in the second it reaches the enormous amount of 57, or about 3-5ths more than for England and Wales. During the second and third years the mortality is not much less, averaging 49 per cent., or an increase of nearly ½ more. In the third year it is still higher, being 53; and between the fourth and fifth it diminishes to 47 per cent. From 10 to 25 years of age a remarkable change takes place in the mortality between London and England and Wales, the former exhibiting 10 per cent. less than the latter. After the age of 25 the mortality again increases until the period from 55 to 65, when it becomes 45 per cent. more than for England and Wales. From 65 to the remainder of life, it shows the same features as between 10 and 25, being 13 per cent. less. Mr. Jopling concluded the first part of his interesting paper with a few remarks on the superior longevity of females over males, and purposes in the second section to point out the diseases chiefly concerned in producing the difference in mortality between London and England and Wales.

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MEDICAL NEWS.

NAVAL APPOINTMENT.—Assistant-surgeons Arthur Adams (1841), and Henry Slade (1847), to Haslar Hospital. Acting Assisting-surgeons, Samuel Denny, M.D., (1850), from the Impregnable, flag-ship, at Davenport, to the Queen, 116, flag-ship, on the Mediterranean station,—Robert Sproule to the Impregnable.

MILITARY APPOINTMENTS.—3rd Regiment Dragoon Guards Assist.-surgeon Robert Marshall Allen, from the 6th Foot, to be Assistant-surgeon vice Sawyers, appointed to the 22nd Foot. 6th Regiment Foot Assistant-surgeon Wm. Fred. Torcato Ivey, from the Staff, to be Assistant-surgeon vice Allen, appointed to the 3rd Dragoon Guards. 22d Foot, Assistant-surgeon Joseph Sawyers, M.D., from the 3rd Dragoon Guards, to be Assistant surgeon, vice John Anderson, M.D., deceased. Hospital Staff, Benjamin Tydd, gent., to be Assistant-surgeon to the Forces, vice Ivey, appointed to the 6th Foot.

APPOINTMENT.—Mr. Henry John Brown, M.R.C.S.E., has been appointed Surgeon to the Parochial Infirmary of Clerkenwell. A vacancy thus arises in the staff of surgeons to the out-door poor.

MEDICAL APPOINTMENTS AND VACANCIES.—The office of Apothecary to the Bloomsbury Dispensary, vacant by the resignation of Mr. Lloyd, will be declared so on the 29th inst., at a special meeting of the Governors, called for the purpose. A medical officer is wanted for the Hawkshead district of the Ulverstone Union. The salary is 40*l.* a year, exclusive of midwifery, fractures and operations, and vaccination-fees. The latter fee is 1s 6d. per successful case. A student in human and comparative anatomy will be appointed for two years, in June next, at the College of Surgeons, at a salary of *l.* a year, with, after the lapse of the two years, an assistant-surgeoncy in the army, navy, or East India Company's service. The candidates must be M.R.C.S., and under 26 years of age. At the Westminster General Dispensary, a resident medical officer is wanted. The salary is 120*l.* per annum, with apartments: private practice not allowed. Mr. Fletcher, surgeon, of Walsall, has been elected the coroner for that borough. At the Wrexham Infirmary a house-surgeon, apothecary, and dispenser, acquainted with the Welch language, is required. Salary, 80*l.* a year, with furnished apartments, &c. Dr. Hooper has been elected assistant-physician to the Surrey Dispensary, vice Dr. Birkett, resigned. Mr. T. C. Jackson has been elected Assistant-surgeon to the Royal Free Hospital.

DR. HENRY DAVIES.—We hear, with great pleasure, that this gentleman has nearly recovered his health, and has resumed his professional avocations. It may be in the remembrance of our readers that, about a year ago, a testimonial of regard was presented to him by many members of the Profession on his supposed retirement. He has lately been sojourning at Brighton, recruiting his health, and now there is every probability of his once more returning to the practice of a profession among us, of which he has been for so many years a distinguished ornament.

ROYAL ORTHOPÆDIC HOSPITAL.—Mr. Broadhurst and Mr. Adams have been elected Assistant-Surgeons to this Institution.

ROYAL DISPENSARY FOR DISEASES OF THE EAR.—The anniversary meeting was held on the 24th inst. The Hon. and Rev. W. H. Legge in the chair. The report stated that during the past year 976 patients had been received, of whom 550 were cured, 160 relieved, and 266 remained under treatment. The patients consisted generally of clerks, needlewomen, domestic servants, artizans, distressed foreigners, sailors, soldiers, and police. The chief causes of loss of hearing were, living in confined or damp localities, intemperance, want of cleanliness, and out of door exercise, insufficient or adulterated food, wet feet or clothing, and sleeping in damp beds or rooms. While these causes of disease are in operation, it is impossible for the medical man to do more than alleviate symptoms. No class of disease is more the subject of quackery and empiricism than deafness, and a variety of inefficient operations and absurd remedies have been suggested for the relief of those whose cure depended entirely on a regular and scientific course of treatment. The report was adopted, and thanks proffered to the surgeon Mr. Harvey, and to other officers of the Institution.

DR. KAHN'S ANATOMICAL MUSEUM.—We have this week paid a visit to this museum, Oxford-street, and were much gratified by its numerous and varied contents. The collection consists of about 350 preparations well arranged; useful for the medical student, and interesting to the public. The progress of the embryo, from its deposition in the uterus to the time of birth, is clearly shown by a number of preparations of each successive week of development, as is also the gradual progress of ossification, by a series of fœtal skeletons, commencing from the second month after conception. Preparations in leather and in wax, exhibit very correctly the course of the arteries, veins, and nerves of the trunk and extremities, also the vessels and nerves of the cranium and face. These are well worthy of notice from their extreme delicacy and minuteness. We have then a gradative representation of the progress of deglutition. A number of sections of the human brain as compared with those of lower animals now follow, as, also, models of the eye, ear, tongue, heart, &c. Considerable space is also devoted to preparations illustrating various positions of the fœtus at the period of parturition; and there are some very curious specimens of *jeux de nature*, arising generally from arrested fœtal development. The most beautiful and interesting part of this museum is a series of 103 figures, representing the microscopic appearances of the embryo from the moment of conception. The correctness of this series may be inferred from the fact, that Dr. Kahn has received an order to remodel a portion for the use of St. Bartholomew's Hospital. It commences with magnificent views of the spermatozoa, female ovum, and the female generative organs, and progresses through every stage of development until the period of the birth of the child. Another series illustrates the incubation of the hen's egg. The progress of gonorrhœa and syphilis is beautifully exhibited in a series of excellent models, taken from cases in the Hôpital des Vénériens and Val de Grace. Two full length figures show the fatal effects of tight lacing, and the mode in which the Cæsarian section is performed; and a third takes entirely to pieces, exhibiting the relative position of each organ. The museum is decidedly the best ever exhibited in London, and we recommend our readers to pay Dr. Kahn a visit.

LIFE ASSURANCE.—The Directors of the United Kingdom Life Assurance Company have passed the following resolution:—"The Board of Directors hereby give notice, that taking into consideration the valuable information afforded them at all times by the private medical attendants of parties proposing insurance they have resolved from this date to pay the private medical referee a fee for such information."

MARYLEBONE BOARD OF GUARDIANS.—At a late meeting of the Board, Dr. Allen was present, and gave an explanation of the case of puerperal mania, which led to the late disgraceful charge made by Mr. Arber, jun., against one of the medical officers. It seems that the Poor-law and Lunacy Commissioners had interfered in the matter, and that Mr. Joseph, who had signed the certificate for the removal of the patient to an asylum, had stated subsequently he was not aware she had been so recently confined, or he would not have given the certificate for her removal; ultimately it was decided, that the minute ordering it should not be confirmed. The minute with reference to the charge made against Mr. Hollingsworth, exonerating that gentleman entirely, was confirmed. The new Board of Guardians seems to have a greater sense of decency than its predecessor.

TEETH A GUINEA A-PIECE.—By this heading the *Western Times* lately described an extraordinary scene in the Exeter County Court. A person calling himself Cartwright summoned a servant girl for 4*l.* 4s. for artificial teeth. After a little preliminary cross-examination, to elicit whether the plaintiff was or was not a Jew, he was sworn. He stated that the defendant came to him in November last, and said she wanted four artificial teeth; he examined her mouth, ascertained its condition, and then, at her request, stated his terms "one guinea per tooth," to which, he said, she agreed. A model of her mouth was then taken, and the teeth were to be ready on a certain day. He then obtained her signature to his order-book, and 10s. deposit. On cross-examination by Mr. Moore, the plaintiff, after having repeatedly declared that his name was Edward Crawcour Cartwright, acknowledged that he had assumed the name of Cartwright, (that of a celebrated London dentist,) on taking up his residence in Exeter. "It was merely as a professional sort of name," he said. He added, the defendant did not appear surprised at being asked for a deposit. He was not a member of the Royal College of Surgeons, but had served his apprenticeship as a dentist to his father, John Crawcour. The plate for the teeth was made of palladium, worth about 21s. or 25s. per ounce; gold, which is generally used for that purpose, is worth from 75s. to 80s. per ounce. He gave advice to the poor gratis. George Wardlow, plaintiff's assistant and step-son, confirmed his statement. His real name was Ward, but on coming to Exeter he had changed it to Wardlow. His brother William, who had also undergone the same nominal metamorphosis, proved taking the teeth to the defendant, who refused to have them, nor would she let him try if they fitted. The defendant, on being called on for her reply, stated, that she went with her sister, in November last, to the plaintiff's surgery, to know the expense of having some artificial teeth. He told her 21s. per tooth, and asked to look at her mouth, but she refused, as she only

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wished then to know the expense; plaintiff assuring her his only object in taking the model was, that if she had the teeth a year or two hence, they would be ready for her, and that no expense would be incurred by taking the model, she consented. The model having been taken, plaintiff wished her to have the teeth the next week, but she said she could not, and would write when she wished for them. That there was no occasion for, he said, and asked her to put her name in a book, not saying what it was, he covering the printed words until after she had written her name. She did not write "4l. 4s." His demand for a deposit surprised her, but under the excitement of the moment, she gave him 10s. His advertisement stated that he gave advice to the poor gratis, and that caused her to consult him. Her sister having confirmed her statement, the Judge summed up, and the jury very properly gave a verdict for the defendant, to whom also costs were allowed.

UTILITY OF SCIENCE.—The papers contain an account of the wreck of the Jenny Lind, a new vessel of 500 tons burden, on a coral reef 400 miles distant from Moreton Bay. The crew and passengers were saved by the boats, and conducted to a coral bank, partly covered with sand. Some provisions and water were obtained from the wreck, affording each person half a gill a day for a while; but soon afterwards, a boiler, some copper piping, and a cistern, having been got from the wreck, Mr. Beal, lately the surgeon of the ship Rajah, succeeded in distilling fresh water from the sea water, so as to give half a pint to each. This plan was continued, and, while one party was employed in building a boat to convey them away, Mr. Beal and his assistants, it is emphatically said, "were continually engaged in sustaining the lives of the people by distilling sea-water."

MANSLAUGHTER OF A LUNATIC.—A verdict of manslaughter has lately been returned against John Harvey, in whose charge the deceased lunatic George Harvey, had been placed. It appeared that the unfortunate maniac, formerly a patient in the Devon County Lunatic Asylum, had been treated most brutally by his keeper. There were the marks of bruises on his wrists and ankles, and on the back, where the skin was abraded, on one arm and the thighs, while the genitals were much swollen, as if from a kick. These facts having been proved, the jury returned a verdict, that the deceased died from the injuries inflicted by John Harvey; but acquitted the latter of malice, thus freeing him from the charge of murder.

EPIDEMIC OPHTHALMIA.—The Mayo *Constitution* says that ophthalmia has broken out amongst the inmates of the Union workhouse, at Westport, and that the number of cases in the last week exceeded forty. It appears to be prevalent also in the Kilrush Union-house.

THE EMU.—This bird, a native of New Holland and of New South Wales, has very rarely, if ever, fecundated in this country; but lately, at the Knowlesley aviary, Liverpool, six of its eggs have been hatched by means of the incubator. The young birds are remarkably strong, and as lively and healthy as if they had enjoyed a mother's care.

DEATHS *in the Metropolis for the week ending Saturday, April 26*, 1851.

CAUSES OF DEATH.	April 26. 0	15	60	All Ages.	Sum of Ten Weeks.
ALL CAUSES	544	299	216	1075	9036
SPECIFIED CAUSES	544	299	214	1057	8968
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	109	20	13	232	1672
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	5	17	18	40	507
3. Tubercular Diseases.	74	110	12	196	1943
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	64	37	30	131	1154
5. Diseases of the Heart and Blood-vessels	1	24	11	36	311
6. Diseases of the Lungs, and of the other Organs of Respiration ...	97	46	54	197	1334
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	33	15	13	61	583
8. Diseases of the Kidneys, &c. ...	...	4	8	12	96
9. Childbirth, Diseases of the Uterus	...	11	1	12	101
10. Rheumatism, Diseases of the Bones, Joints, &c.	3	6	1	10	72
11. Diseases of the Skin, Cellular Tissue, &c.	1	...	1	2	9
12. Malformations	1	...	...	1	16
13. Premature Birth and Debility ...	29	...	...	29	172
14. Atrophy	22	1	1	24	136
15. Age	...	...	45	45	320
16. Sudden	4	1	2	7	124
17. Violence, Privation, Cold, and Intemperance	11	7	4	22	214
Causes not Specified	...	...	2	18	68

TO CORRESPONDENTS.

COMMUNICATIONS are in Type as follow:—

A Clinical Lecture on "Absorbent Inflammation and on a Case of Lithotomy," by S. Solly, Esq., F.R.S.; Dr. Bryson, "On the Infectious Origin and Propagation of Cholera;" "Commentaries on Convulsive Diseases," by Charles B. Radcliffe, M.B.; Dr. Rigby, "On Displacement of the Ovary;" "Cases in Surgery," by Henry Smith, Esq., F.R.C.S.; "Remarks on the Etiology of Phthisis," by Edward Smith, M.D., &c. &c.

[To the Editor of the Medical Times.]

SIR,—In your last Number I find a letter from Mr. Greenhalgh, in which he emphatically declares, "that it is false that he has examined with the speculum many hundred women who had 'no uterine' disease." I sincerely wish, for Mr. Greenhalgh's own credit, and for the credit of the medical profession, that he may be able to substantiate the correctness of this assertion. What, however, are the facts of the case? In the paper which he read before the London Medical Society, February 1, 1851, Mr. Greenhalgh stated "that he had examined, in the course of a few years, above a thousand females with the speculum, and had found inflammatory lesions in about one-fifth"—that is, in two hundred. Now, Mr. Greenhalgh has never distinctly said what was the state of the remaining eight hundred, but his very silence has led me and most of the members of the Society to the conclusion that their condition was not very far from a normal one. Surely Mr. Greenhalgh does not now mean to insinuate that he met with eight hundred cases of cancer or fibrous tumour. And yet, if not, to what conclusion can we come except it be to the one enounced—viz., that many hundred of the thousand surgically examined had no uterine disease? If Mr. Greenhalgh can satisfactorily account for the specular examination of the sexual organs of these eight hundred females, the sooner he does so the better it will be for his scientific and professional position. I am, &c.

9, Cambridge-square. HENRY BENNET.

INSURANCE OFFICES.

[To the Editor of the Medical Times.]

SIR,—As you have so warmly advocated the adjustment of the claims made by the Medical Profession on Life Insurance Companies, I entertain the hope that you will permit your journal to be the medium of communicating to the public and the Profession the following statement, which exhibits the mode of management under which Scottish branches of English Companies continue to conduct their business. I am the more inclined to hope you will accede to my request in publishing this, that I have just observed in your advertising columns an advertisement of the United Kingdom Life Assurance Company, in which the Board of Directors give notice "that, taking into consideration the valuable information afforded them at all times by the private medical attendant of parties proposing insurance, they have resolved to pay the private Medical Referee a fee for such information."

I was lately applied to by the Agent of the Edinburgh Branch of the United Kingdom Life Assurance Company, who sent me the usual office form of questions submitted by the Directors for my answers, which questions are annexed to the letter in which it is mentioned, that the report of the medical attendant "will be considered strictly confidential." In my reply to this communication, I stated that, having been the medical attendant for upwards of twenty years of the party proposing to insure his life, I was enabled to give the fullest information on all the points submitted to me; but that I had formed the resolution, along with many of my professional brethren, to withhold on every occasion the important and responsible report requested of me, from all Companies who are not disposed to grant remuneration for the same; and that I should feel obliged to him to apprise me of the practice of the Company on that point. The answer I received was to the following effect:—

"United Kingdom Life Assurance Company, Edinburgh,
"81, George-street, April 17, 1851.

"Mr. ——— (the Agent) presents compliments to Dr. ———, and, on returning from the country to-day, found his note of the 7th inst. awaiting him. He need only mention, that the insurance matter referred to was settled some days ago"

The important questions in which the public and the Medical Profession are interested, are—

1. Whether an official communication addressed to the Agent of a public Company should in his absence remain for ten days unopened in his Office?

2. Whether in his absence the communication was opened and laid before a meeting of the Board?

I shall only further remark, that Boards, who are solicitous in asking and obtaining important information, surely place themselves in an anomalous position, who either decide hurriedly by not waiting for it, or who act without it, by refusing to give the just and reasonable means, which are in their power, to acquire it. And the Agent, who asks in the name of his Company for medical advice, is bound in courtesy, when requested to explain the terms of its Directors, to say whether they will pay for it or wish to have it gratis, and that above board dealing should have prevented him from burking the only question put to him.

Your publication of the proceeding will, I trust, have the effect of making the Edinburgh Board of Directors follow the line of improvement which the London Board has chalked out, as well as induce other Companies to be guided by a spirit of "Fair Play" to medical men.

I am, &c., J. R., M.D., &c. &c.

Glycerine.—"Dubitous" asks, "How in the name of common sense came this innocent fluid, (analogous to fat in a state of fluidity,) to be put forward as a cure for deafness?" How, indeed? say we. Mr. Yearsley, who has denounced it as "a monstrous absurdity" could, we suspect, a tale unfold in respect to it which would make some exclaim, "Can such things be, and not excite our special wonder?"

Psychologist.—Τεχνη is what in modern language would be called the creative power or faculty,—the poetic organ in its highest and lowest sense. Επιστημη is the converse of this. It deals with that which cannot be otherwise; it does not fashion anew, but perceives: what it deals with are are universals, not particulars. Νους is nothing more than quickness of tact, the result of practice and experience.

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Alpha.—The termination in co is noted in general for having a weakening force: for example, *claudico* is "shut a little," and the difference in meaning between *nigrantem colorem* and *nigricantem colorem* is, that the latter is less strongly inclined to black; hence we cannot say that pharmacopœial usage is incorrect.

A. Y. will find the information he requires in the admirable paper of Bisot, in the First Volume of "Mémoirès de la Société Medicale d'Observation de Paris."

A Young Microscopist.—Quekett's work.

Mr. R. Smith may rest assured the hint shall not be lost. We are already actively engaged on the subject.

A Father.—The man referred to, although in some way connected with the College of Physicians, is as little to be trusted as any of the herd of Quacks that fatten on the vices and credulities of our youth. Let him consult any respectable surgeon; his son is probably weaker in mind than body. The inconvenience complained of is by no means unusual during convalescence from severe illness.

Edinensis.—The *soirée* we last week spoke of was one for which four or five hundred invitations were issued. No reasons were assigned, so far as we have yet learned. Really the worthy President seems determined to be hated. What are the Edinburgh men about? We think we see signs of a determination ere long to throw off the incubus.

J. S. will find Nice as cheap as it is delightful for a place of residence.

An Old University Student.—We have made inquiries and find the statement to be simply untrue. The authorities, we fancy, would have required an extra clerk had they officially contradicted the legion of libels that have emanated from the same source. These fictions spring from disappointed ambition. He would, but they would not,—hence the fury, fire, and fibs.

A. Y. must send his name, or we must decline to insert his communication

Mr. Henry George.—The late Dr. Inglis, of Halifax.

Mr. Scrives.—Dr. P. Heunis Green's paper on Tubercle of the Brain in Children, in the 25th vol. of the "Medico-Chirurgical Transactions."

Mr. Harris.—On the whole we believe the selections made by the Council of the Sydenham Society to have been most judicious. The Society was not established for the publication of mere text-books. We trust the bibliography will shortly appear. If ably compiled, as we doubt not it will be, it will be invaluable.

A Student.—1. Otto pointed out the fact, that the size of the pelvis corresponds in some degree to the size of the contained organs, and refers to cases observed by himself, and by Professor Louth, of Strasburg, in confirmation. 2. Although many cases of universally adherent pericardium have been described as examples of its absence, yet it is new and then really absent—*e.g.*, a case described by Mr. Curling in the 22nd vol. of the "Medico-Chirurgical Transactions."

A Country Surgeon will find a brief account of Mr. Marshall's operation in our report of the proceedings of the Medical and Chirurgical Society. Having witnessed two of his operations, we can affirm that they were successful in the fullest sense of the word. In one of the two the knife could scarcely have been used with advantage. For the removal of polypi of the uterus, the method employed by Mr. Marshall seems likely to prove invaluable.

[To the Editor of the Medical Times.]

SIR,—Pray allow me a short space in your valuable Journal to remove some erroneous impressions which the letter of Dr. Henry Bennet, April 26, is calculated to induce.

He says, that some years ago he "examined" my "dissections." This, however, is a great error. Once, and once only, he was in the same room with me, whilst I was engaged with the first dissection, but he never, to my knowledge, "examined" it; nor did he ever, to my knowledge, even see the subsequent dissections. I cannot be mistaken as to the fact, for the preparations have never been out of my own possession; and no one has ever seen them except in my presence. To apply the term "examined the dissections" to this hasty glance of one, is a serious misrepresentation of a fact. I am glad to take this opportunity of strongly protesting against any one stating, as has been done, that he has examined a series of minute anatomical investigations, when he has merely glanced, for a minute or so, at one of the series. No one who values his scientific reputation, or who rightly estimates the importance of stating a fact correctly, would make such a statement. I must also protest against the assumption of knowledge contained in the phrase, "I rather leaned in feeling to the adoption of his (Dr. Beck's) views on the anatomy of the uterine nerves, but without, in any respect, accepting them as definitive." To judge upon a disputed point in anatomy requires sound anatomical knowledge. Of this Dr. Bennet has shown himself, in his published writings, to be grossly ignorant. How, then, can he assume to himself the right of "accepting as definitive" any researches of the value of which he is incapable of judging, from a want of sufficient knowledge of the subject?

Dr. Bennet adds, that Dr. Lee's researches and my own "have both received the highest scientific testimony—the medal of the Royal Society:"—this, again, is contrary to fact. Only one medal has been awarded. It may be thought that this is too trivial an error to require notice; but, when taken in combination with the previous misrepresentation of a fact, and with the assumption of knowledge which he does not possess, it affords an apt illustration of the many unfounded statements which are found in the works of this writer, and furnishes an estimate of the value which ought to be accorded to them.

The "hostility" which Dr. Bennet says I "evinced," was a decided opposition to statements which, I am convinced, are contrary to nature, and to a treatment which I believe to be improper, and, in many cases, unwarrantable. The literary research, the anatomy and physiology, the pathology, the symptomatology, and the treatment advocated by Dr. Bennet are, in my belief, equally erroneous. But this is not all. It is stated that ulceration has been discovered in the virgin, and a drawing, said to represent a virgin uterus so extensively ulcerated, has been published. The preparation from which this drawing is made is further taken as the basis of this discovery, and as a warranty for the improper application of the speculum in the treatment of the diseases of the virgin female; yet, when I saw this preparation, I could not discover any signs whatever of the existence of ulceration, nor did the uterus possess the characters of a virgin uterus. Is it possible to withhold opposition to such errors and such improper statements as these?

I am, &c. T. SNOW BECK.

Veritas, of Swansea, will find Dr. Culverwell's qualification stated in the "Medical Directory."

Mr. Ellis, of Bolesdale, had better apply to Dr. Forbes Winslow, Albemarle-street.

XXX.—Skey's Operative Surgery.

Cymrei.—Most decidedly not.

Enquirer and Subscriber.—We must decline.

MR. SKEY AND THE DAILY "TIMES."

[To the Editor of the Medical Times.]

SIR,—Having just seen an article in the "Times," purporting to be a critical notice of Mr. Skey's new Work on Operative Surgery, I feel curious to know something more of the Author. As represented by the newspaper critic, he must indeed be a person of singular parts and varied accomplishments—possessed of the most tender sensibilities, yet bold and decided in cases of real emergency—jealous of the honour and dignity of the profession, but careless and indifferent to his own private interests. Now, Sir, knowing the partiality and even venality of some Journalists, and that medical criticism is not their forte, I wish to hear the opinion of some who are behind the scenes. By the way, it must be rather mortifying to a gentleman with such chivalrous notions of professional honour, to have his productions puffed in the columns of a daily paper.

According to the "Times," Mr. Skey denounces all operations of complaisance, and darkly hints that our hospital surgeons are too much in the habit of using the knife with a view to their own credit and renown, rather than for the benefit of their patients.

Such practices, if they exist, cannot be too strongly reprobated; but is the Author of the new Operative Surgery without sin? Has he never tried his hand at feats of plastic surgery, keeping unfortunate sufferers writhing and groaning upon the table, while he vainly endeavoured to improve a maimed limb or a distorted feature? Because, if Mr. Skey has done these things, and writes in the style imputed to him, then he is little better than a humbug. If, on the contrary, he is able to appear with clean hands, I can only say that common report does most shamefully belie him.

Believing that many others besides myself are anxious to know the truth,

I am, Sir, your obedient servant, A SUBSCRIBER.

The Surrey Hills.

[Mr. Skey may well exclaim, "Save me from my friends!" We most sincerely condole with him upon the misfortune which a non-medical reviewer of a medical Work has, in the columns of the "Times," inflicted upon him. Nevertheless, Mr. Skey's book is a good and a useful book, and well deserves the great success it has met with.]

E. C. will have the kindness to apply to the Secretary of the Apothecaries Company, Blackfriars, London.

We beg that our Correspondents will append titles to their several communications.

We are obliged most positively to decline noticing any communications, of whatsoever description they may be, or from whomsoever they may emanate, which are otherwise addressed than to the Editor,

"Medical Times" Office,
46, Princes-street,
Soho, London.

COMMUNICATIONS have been received from—

MR. WILDE, of Dublin; Dr. HUTCHINSON, of the Hospital for Consumption; Dr. HUNT, of Brook-street; J. S; A NAVAL SURGEON; A. X.; Mr. HENRY GEORGE; Mr. SCRIVES; Mr. R. SMITH; A. Y.; A FATHER; Dr. THOMAS STONE; Mr. GIBBONS, of Liverpool; Mr. DARTE, of Warwick-street, Pimlico; EDINENSIS; Mr. HARRIS; Dr. LIGHTFOOT, of Fulham; A STUDENT; Dr. ROBERT KNOX; A COUNTRY SURGEON; Mr. MARSHALL, of University College; PSYCHOLOGIST; A CLINICAL STUDENT; ALPHA; J. R, of Edinburgh; Mr. TAYLOR, of Bishopwearmouth; VERITAS; A DUBLIN STUDENT; Mr. SIBLEY, of Middlesex Hospital; Dr. RADCLIFFE, of Henrietta street, Cavendish-square; Mr. FLETCHER, of the Liverpool Infirmary; Dr. SNOW BECK, of Langham-place; Dr. HENRY BENNETT, of Cambridge-square; Mr. DOVER, of Spring Gardens; Mr. MILTON, of Jewin-street; X.X.X.; FORTUNATUS; Mr. UNDERHILL, of Tipton; DUBITANS; A SUBSCRIBER on the Surrey Hills; Dr. LANE.

ORIGINAL LECTURES.

CLINICAL LECTURE

ON

A CASE OF ABSORBENT INFLAMMATION,

AND ON

A CASE OF LITHOTOMY.

DELIVERED AT ST. THOMAS'S HOSPITAL.

By SAMUEL SOLLY, Esq., F.R.S.,

Gentlemen,—In my last clinical lecture I took the opportunity of addressing to you some remarks on purulent absorption, illustrating them with the histories of three or four cases of the disease which had been under my care at the time. I explained to you how a vein, wounded either by accident or operation, is, under usual circumstances, plugged up by a coagulum, which serves as a barrier to the entrance of the morbid products of inflammation into the circulation; and how, when this barrier was broken down by accident, or in consequence of some dyscratic condition of the blood, was not properly formed, and thus pus was admitted into the vessels, there followed certain symptoms insidious in their character, and almost always if not universally fatal in their result. To-day I have to speak of a disease having somewhat analogous symptoms; but happily, in most cases, much less dangerous in its nature, and much more amenable to treatment; I mean, absorbent inflammation—inflammation of the lymphatic vessels and glands. This, like purulent absorption, is frequently ushered in by severe rigors, and arises from some mechanical injury offered to a part where inflammatory changes were previously going on. Like this disease, also, it frequently gives rise to the formation of pus in parts at a considerable distance from the original injury. But here the resemblance ceases. In phlebitis the local mischief, though sufficiently great, is yet the least part of the evil we have to encounter. The blood circulating through the vital organs of the body, carries to them, in its stream, a noxious material, which, by its further development, must needs spoil their fabric, and thus, by interrupting their functions, cause death. In inflammation of the absorbents, on the other hand, the local affection is the chief ill, the constitution being only secondarily affected. This difference between the two diseases is occasioned by the presence of the numerous absorbent glands through which the lymphatic vessels pass before mixing their contents with the blood. These important organs in the animal economy generally act as efficient barriers to the entrance of pus into the circulation. The purulent fluid having found its way into the absorbent vessels, passes along them until it reaches a gland; here, however, it is stayed, and inducing inflammation and suppuration, is thus eliminated from the system before reaching the more important organs of the body. Nevertheless, absorbent inflammation is still a serious disease, and the fact of its very frequent occurrence after the removal of necrosed bone, should warn the surgeon not unnecessarily to interfere with the process of its separation. I will not further describe the symptoms of the disease, for you cannot have them better delineated than in the history of the following case, reported by my dresser, Mr. Carpenter:—

Richard Donovan, aged 60, a labourer, of intemperate habits, was admitted, under my care, into George's Ward, on the 10th of December, 1851.

Three weeks before admission, a stone fell on the great toe of the left foot, bruising it and causing hæmorrhage. He continued at work, but was at last obliged to give over on account of the pain. On admission, the metacarpophalangeal joint was laid open, and the head of the metacarpal bone and base of the first phalanx exposed. From the sore there was a foul-smelling, sanious discharge. He was rather weak, but his appetite was good. A small piece of dead bone was removed, and a splint placed beneath the toe to support it. The same treatment was continued, poultices being applied over the sore, until the 28th of December, when, the granulations being flabby, and there being no attempt at reparation, the sulphate of copper was *freely* applied to the ulcer. On the following day, (Dec. 29th,) in the evening, he complained of great pain in the leg, and soon after he had a shivering fit, followed by general uneasiness and agitation, and tenderness up the inner side of the leg and thigh as far as the saphenous opening, where the glands were enlarged and painful. Now this attack was as long as nineteen days after the removal of the piece of dead bone, so that this could not, with any probability, be regarded as the exciting cause. I am rather inclined to refer it to the very free use of the sulphate of copper on the previous day.

On the 30th December the pain and tenderness were increased; there was slight redness near the knee-joint, but nowhere else; the pulse was sharp, 112; the tongue coated with a brown fur and dry. I ordered large poultices to be applied along the leg. Quinæ disulph. gr. ij., ter die.; hyd. chlor. gr. 11; opii, gr. i., st. et. rep. horâ somni. Towards evening he had another shivering fit, after which he became easier. On the 31st December he was better, though still agitated and restless. Red lines were seen running up the leg from the great toe, but the glands in the groin were less tender and painful; the tongue was much furred; pulse 108. To take the pill of opium and calomel nightly. In the afternoon, had another shivering fit. On the 1st of January, 1851, the red lines up the leg were diminishing, and the enlargement of the glands gone; had had no rigors. The face was less anxious, and the tongue more moist. In the evening, the toes and foot were attacked with diffuse inflammation; but this, together with the red lines up the leg and the febrile symptoms, soon vanished; and, on the 5th Jan., the toe had resumed its natural appearance, and his usual health was restored. I now removed a small piece of bone from the first phalanx.

The next day (Jan. 6th) he had considerable pain along the inside of the thigh and over the patella, where the skin was red and rather swollen; he was feverish, and had an anxious expression.

On the 9th of January, however, these symptoms were gone, and the toe began to assume a healthier appearance, smaller and brighter granulations springing up and encroaching on the exposed bone.

On the 13th January, his health had continued to improve; but a small, hard, and painful swelling had formed on the inner side of the thigh, just above the knee. The calomel and opium pills were continued until yesterday, when they were omitted, his mouth being slightly affected. He complained of tenesmus and pain in the bowels. For this I ordered him ol. ricini, ℥iss.; tinct. opii, ♏x. statim; and you will find, that where, as in this case, tenesmus and pains in the bowels have followed the use of mercury, you will not be able to relieve the patient by means of the mist. cretæ co.; but you must have recourse to castor-oil.

On the 14th the swelling above the patella was opened, and a small quantity of ill-formed pus let out. The tenesmus had been relieved by the ol. ricini, and the exposed bone was nearly covered by granulations. He improved after this, his appetite increasing, and the opened abscess healing kindly. On the 1st of February three small pieces of bone were removed by the forceps without any bleeding or pain. He remained well until the 18th February, when he had again an intense shivering fit without any evident cause, followed by hot skin, furred tongue, and loss of appetite. The toe not altered, but the groin very tender again; pulse, 104, soft and weak. Towards evening he became actually delirious, trying to get out of bed and go away. On the 13th the foot was very much inflamed, with red lines running up towards the knee, and tenderness up the inner side of the thigh. Tongue dry and brown, pulse jerking and weak; no appetite; much thirst, and headache. Ordered gr. ij. hyd. chlor.; opii, gr. i. st. et repet. hora somni. On the 14th he had had a good night, and was much easier, and quite rational; pulse 90, weak; tongue clean. He had lost much of the pain, tenderness, and redness of the limb. On the 15th the appetite was returning; the redness gone; the tongue clean, and the diseased toe looking well. On the 20th, three small pieces of bone, one the size of a pea, were taken away from the head of the metacarpal bone; no bad consequences followed. On the 24th a larger piece of dead bone was removed, apparently the last; and after this the toe healed quickly, and, on the 28th, was completely cicatrized, and he could walk about without pain. The toe was a little shorter than its fellow of the opposite foot, and was very moveable, showing a deficiency of bone in the situation of the first phalanx and the metacarpal bone. On the 5th of March he was discharged.

You will remark how strikingly the constitutional symptoms abated in this instance under the administration of calomel and opium. This would not have been the case if the pus had been absorbed by the veins instead of the lymphatics. The result in this instance was that the man lost part of the first phalanx, and a portion of the head of the metacarpal bone. I have seen several cases similar to this, and I am certain that the patient is in a much better condition when this has happened than when the toe has been cut off; for there remains a soft cushion covering the end of the toe, and serving to maintain the point of support there, as well as to prevent that troublesome ulceration which is so frequent a consequence of amputation at the metatarso-phalangeal articulation.

The same principle may be carried out in accidents or disease affecting the fingers, and with still greater advantage, for here the prevention of disfigurement is of much greater consequence. You have seen several cases in which this saving practice has been carried out with great success in our own wards, and of one of them I will just give you an outline. James Bishop, a healthy lad, aged 14, fell whilst riding the leader of an omnibus from Sydenham, and the wheel of the omnibus passed over his hand. There was a simple fracture of the first phalanx of the fore-finger, and a compound fracture of the first phalanx of the ring finger, with considerable laceration of the soft parts in front of its metocarpophalangeal joint, which was exposed, and into which the fracture extended. I determined to try and save this finger, and had it fixed with strapping and pasteboard splints. A loose piece of bone, which proved to be the base of the first phalanx, was subsequently removed, and after this the case did very well, and the wound healed quickly. I saw the patient about a year afterwards, and his hand was then so useful and so little disfigured that he had been able to obtain the situation of a groom.

And it is astonishing how much may be done with regard to saving fingers. The reason necessitating amputation in severe injuries or diseases of the larger joints is the great constitutional irritation consequent on them. In disease of the hip-joint it is this constitutional irritation which proves fatal. But in the case of fingers it is a mere question of time, and though in a labouring man this is sometimes of such consequence as to oblige you to operate, in the higher classes the preservation of the symmetry of the hand more than compensates for the somewhat more lengthened time necessary for the cure. I had lately, in my private practice, a case which caused me a good deal of annoyance. A young gentleman had the misfortune to become the subject of inflammation and suppuration of the joint between the first phalanx and metacarpal bone of the middle finger, resulting in destruction of the cartilages by ulceration. I told him that with time and rest he would recover without the loss of his finger, and allowed him to go down into the country, thinking that the change would benefit his health, and thus expedite the cure. After some little time I had a letter from him, telling me that the surgeon under whose care he was, advised amputation. I immediately wrote back begging that the finger might not be taken off at any rate without first consulting Sir B. Brodie, or some other surgeon. However off it came, and an unsightly deformity was entailed upon the patient. Even had an operation been necessary, the excision of the metacarpo-phalangeal joint would have been far preferable to the amputation of the finger.

The next case I have to bring before you is one of stone in the bladder, for which the operation of lithotomy has been performed. This case also is reported by Mr. Carpenter :—

Robert Besgrove, aged 38, a farm labourer, residing at Knightsbridge, in Somersetshire, was admitted into George's Ward, February 11, 1851, with symptoms of stone.

He stated that, seven or eight years since, he was frequently pained after passing water, the stream sometimes suddenly stopping before he had finished, and, at times, small clots of blood appearing in his urine, especially after exertion. Some time after this state of things had continued, he was visited by a very acute attack of severe pain in the loins, shooting along the inguinal canal into the scrotum. The pain, on and after passing the urine, continued, and he began to pass small calculi, about the size and shape of carraway comfits, rough, and of a rusty red colour. When quite dry, some of these crumbled to powder, but others permanently retained their form. In the four following years he passed about twenty of these. His health did not suffer much until about months since, when the last of these small calculi was voided. Since then he has become gradually weaker, and has lost flesh, receiving no benefit from the treatment adopted. He is now obliged to get out of bed to make water several times during the night, and for the last fourteen days he has been unable to retain his urine at all whilst lying on his back. He has once or twice had the testicle enlarge, this happening during or immediately after the attacks of pain in the loins. On admission, he complained of pain along the penis as well as in the perineum, where he said he could sometimes feel the stone. The urine is frequently bloody after exertion, and during micturition the stream sometimes suddenly stops, causing acute pain. He has been in the habit of relieving this condition by passing for himself an elastic bougie, with which he pushed the calculus out of the way. His spirits are low, he having been persuaded by his friends that he will never return home again. Latterly he has lost his appetite. The tongue is covered with a thick white fur, and he is rather emaciated. The urine is alkaline, and deposits a thick layer of ropy mucus, which, under the microscope, shows many triple phosphate prisms, and a few crystals of lithic acid; also many blood corpuscles, and what appeared to be a cast of a uriniferous tubule. No crystals of oxalate of lime were seen. On the 13th February, Mr. Green examined the patient, and caused the sound to ring very audibly upon what he thought to be a large rough stone, probably oxalate of lime. He remarked that it was very likely the patient had been passing triple phosphates ever since the formation of the stone; that the wasting away, the frequent pain in the loins, and inflammation of the testicles, would indicate a renal origin of the calculus, and thus, so far, render the prognosis unfavourable. He prescribed inf. buchu ʒii., acid. nit. dil. mxx., tinct. hyosc. mxx. ter in die.

On March the 8th he had considerably improved in his general health, and his sufferings were not so severe. He had a better appetite, firmer flesh, and he was not so emaciated. The urine was still alkaline, but did not contain so much mucus. The operation for removal of the stone had been delayed for some time, on account of the prevalence of erysipelas in the ward; but, this now being obviated, it was performed by Mr. Solly at 1 p.m., Mr. Green holding the staff. It occupied somewhat less than a minute. As the forceps were introduced, a gush of urine passed out. This was very fetid, and mixed with purulent matter. The stone, weighing 1 oz. 4 drs. 6 grs., measured in its long diameter 1½ inches, in its short 1¼ inches. It was rough, composed principally of lithic acid, and imbedded in a coating of coagulated fibrin. There was not much hæmorrhage after the operation, but he became very faint. In the evening slight bleeding still continued. He was free from pain; pulse 120, soft.

On the 10th he was doing well and quite easy, a few streaks of blood coming from the wound. Ordered wine, ʒiv.; meat; and to resume the buchu mixture, which had been omitted since the operation. The urine still remained somewhat fetid.

He continued to improve until March 16th, (except that his urine became very fetid, and the wound foul). In the afternoon of that day there was a sudden gush of arterial blood, and a considerable quantity had been lost before assistance could be rendered. This was stopped by pressure on the trunk of the pudic, which was kept up for two hours. It would appear to have been caused by the separation of a small slough. Towards night he became rather restless and feverish; but this condition passed away, and the next he was apparently none the worse for the bleeding. Mr. Solly ordered tannin, gr. ij.; opii, gr. ¼; 4tis horis; to omit the buchu mixture.

On the 18th of March, the urine, which flowed freely through the wound, was much less offensive, his health was improved, and the wound itself was much changed for the better in its appearance.

Now, this was as unfavourable a case for operation as you could well have; but we cannot pick our cases, and I felt bound (Mr. Green having kindly transferred the man to my care) to attempt the cure by operation. The history certainly favoured the idea that there was disease of the kidneys present, and that the numerous calculi which had passed had descended from those organs. But I do not feel certain of this. I think it not improbable that these calculi were from the prostate; and the occasional swelling of the testicles

might as well be referred to disease of the prostatic part of the urethra as to disease of the kidneys; for we know how frequently orchitis results from inflammation of that passage, and we are sometimes taught by experience that the mere irritation of this canal by the passage of a bougie is sufficient to produce this sympathetic inflammation. I had lately a case of this kind in my private practice, where the introduction of a cat-gut bougie caused such inflammation of the testis as to necessitate the administration of calomel and opium. The emaciation indeed pointed to renal disease, but might have resulted also from the injurious effect of the stone upon the lining membrane of the bladder; and the man's condition improved very remarkably under the exhibition of the acid mixture. In this hospital it is always the practice to allow a stone patient to remain a week or two in the house previous to operating, in order that he may be prepared for it, and may become somewhat accustomed to the place; and I am sure that to this partly is to be attributed the very favourable result of our cases of lithotomy at this hospital. The present sister of the ward tells me, that out of fifty-five stone patients who have been operated on since she has been here only four have proved fatal. In the present instance the delay was more than usually extended by the prevalence of erysipelas in the ward, and I am now glad that this delay happened, for I think the man stands a much better chance of recovering from the operation in consequence of the improved state of his health. I performed the operation in my usual method. As soon as I had opened the urethra, I changed the sharp-pointed scalpel for Blizzard's beaked knife, with which I entered the bladder and divided the prostate. The operation is of course performed more quickly with one knife—more quickly for two reasons, firstly, that you do not have to change your instrument; and secondly, that having once cut into the groove of the staff, you have nothing to do but pass your knife onwards into the bladder; whereas, in changing the knife, some hindrance frequently takes place in finding again the opening into the urethra. The best way of obviating this difficulty is to keep the nail of the left fore finger on the opening, and thus guide the probe-pointed knife into the canal. It is important also to use a large staff in this operation, for, of course, the larger the groove the more readily is it hit. I remember being put to some inconvenience in one instance, where the patient was suffering so much that I was induced to operate without having sufficiently dilated a stricture, and was thereby forced to use a small staff. Another cause of difficulty in this case was that near the termination of the staff there projected into the groove a diaphragm of steel. I thought I had come to the end of the staff, and accordingly cut out; but, on introducing my finger, (which I always make a point of doing before using the forceps) I found that I had not divided the neck of the bladder. This should teach us carefully to examine our instruments before commencing the operation. But I am sure that this, though not the quickest, is yet the safest plan of the two; for in using but one knife there is a danger, and not an imaginary one; for I have known it happen in more than one instance, that its sharp point may pass too far, and penetrating the posterior wall of the bladder, cause death. Now this cannot happen with Blizzard's knife.

In operating on children, where of course a large staff cannot be used, the beak of a large knife does not slide nicely along the groove of the staff; and I have therefore had a knife made with a smaller beak for operating on the young. In cases of lithotomy similar to the present, though you must watch that inflammation does not come on, yet you must not be in too great dread of it, nor, by submitting your patient to a preventive treatment, increase a weakness already sufficiently great. In most instances of a like character the patient will very soon require support, and stimulants must be given. This is the result not only of my own experience, but also of other hospital surgeons. Hæmorrhage occurred in this case nine days after the operation. Now, when bleeding does happen after lithotomy, you must not attempt to stop it by plugging the wound, but must compress the pudic artery against the bone; and this pressure may require to be kept up for many hours. Some years ago I divided the pudic artery whilst operating for fissured anus. In this case I did that which I will never do again, viz., I divided the sphincter from within outwards. The knife, which was very sharp, went quickly through the grisly substance around the gut, and passing too far outwards, wounded the artery. In the case, if I recollect right, pressure was kept up for upwards of forty hours, before I considered the patient safe from a return of the bleeding. You saw, at the operation, that a large quantity of pus followed the removal of the stone; and you will remember, in the history of the case, that the man said he could sometimes feel the stone in the perineum; and I have no doubt that he was right, and that it had formed an abscess in the prostrate in which it was occasionally lodged, and from which it was removed by the elastic bougie, which he was in the habit of using, in order to enable him to pass his water. Such extensive disease as this is of course very unfavourable; but I think it most probable, that the operation which has been performed will save his life.

Lithotrity was of course out of the question, for it would have increased the mischief caused by the stone, whereas, by cutting into the bladder, not only was the stone removed, but the abscess it had produced was freely laid open and thus put in the most favourable condition for healing. Lithotrity, however, is in many cases a very good operation, and I recommend it in fit instances in preference to lithotomy. In two or three cases which have been under my care at this hospital, and in which I have deemed the operation applicable, there has been an unaccountable aversion to it on the part of the patients themselves.

In conclusion, I would warn you, gentlemen, when you go into practice and meet with a stone case, do not waste valuable time in mere palliative measures, but immediately operate or send the patient to a hospital for operation. Had this been done in the present instance, not only would the man have been saved much severe suffering, but he would have had a much better chance of recovery after the performance of the operation.

LECTURES ON HISTOLOGY.

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS, LONDON.

By J. T. QUEKETT, Esq.,
Assistant-Conservator of the Hunterian Museum.

(Continued from page 448.)

CONCLUSION OF VEGETABLE TISSUES.

Having in my last lecture completed all the important tissues entering into the formation of vegetables, I shall now pass on to consider those composing the animal body; but before doing so, I purpose taking a rapid review of the subjects which have occupied our attention since the commencement of this course.

I stated in my first lecture, that all plants were made up of an elementary membrane existing in the form of cells, each of which in the young state is provided with a nucleus or cytoblast and nucleoli; the membrane being generally of a greenish colour, but, in ferns, occasionally brown. The membrane in process of growth becomes thickened by secondary deposit; this may be either in a homogeneous form, and occupy the whole interior of the cell, or be deficient in certain parts, when pits or pores result, or it may occur in a spiral form, the general direction of which is from right to left.

I next called your attention to the various forms under which cells are found in plants, and explained, that in the young state they were of a spherical figure, which becomes modified in process of growth into dodecahedrons, cubes, parallelograms, prisms, etc. etc., and even into fibres. I then passed on to the consideration of the contents of these cells, and showed you examples of various colouring matters in a fluid state, to which are owing all the varied hues of the corollæ of flowers. I then noticed one of the most common of cell-contents, and one of the most useful to mankind, viz., starch, which has definite and peculiar characters in different plants, and consists of grains of a more or less oval figure, composed of an outer membrane, exhibiting a central spot or hilum and concentric lines, within which the amylaceous or starchy material is contained. I pointed out to you the relative sizes of the grains in rice, potato, and *tous les mois*, and drew your attention to the peculiar club-shaped bodies found in the milky juice of the Euphorbiaceæ.

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Chlorophylle, a substance of a starchy nature, was then

considered, this material gives the green colour to all plants growing in the light; I showed you striking examples of it in the chara and vallisneria, in both of which the granules were seen in active circulation within the vegetable cell. Other cell-contents, such as milk, oil, resin, gum, were then mentioned, and separately described. The next product of cell-secretion is one always found in a crystalline state, known by the name of raphides; these being of various forms, sometimes occurring as single crystals, but more frequently in stellate masses of oxalate of lime, as in the rhubarb, or of phosphate of lime in needle-shaped crystals, as in the squill.

Another inorganic material, found principally as a coating to cells, is silica, which I described as so intimately blended with the tissues of certain plants, as to form a perfect cast of their original structure when all the soft vegetable matter has been removed; abundant examples of this were shown you in the grasses and canes.

I then exhibited a series of preparations in which sclerogen or hard tissue, approaching to bone in many of its characteristics, occurred as a cell-content, but in no one case was a cell entirely occupied by it, a central cavity, with a system of radiating pores, always existing. The last product of cells which I mentioned was that of phytozoa, or plant animals; these are met with in the *chara vulgaris* and in mosses, ferns, confervæ, etc.; each cell of the antheridia of mosses is occupied by a spiral filament which exhibits a peculiar gyrating motion, precisely similar to that of the spermatozoa in animals, to which they no doubt are analogous.

The aggregation and modification of the cells previously described, make up the entire structure of all classes of plants, each variety being characterised by the name of "tissue;" thus we have the woody tissue, the vascular, the porous, etc., the first of these being the most important; to it we are indebted for our linens, our cordage, and our paper. It consists of elongated tubes or fibres of a more or less cylindrical figure, and occurring in bundles; by maceration, and by a process termed hackling, the fibres are detached from each other, and are then capable of being worked into fabrics of various kinds.

The vascular tissue consists of cells more or less elongated, joined end to end, or overlapping each other, in which either a spiral fibre or a modification of the same has been deposited; hence, if the spiral be perfect, such a vessel is called *a true spiral vessel;* if interrupted at certain parts, and the fibre appears like a series of rings, it is then called *Annular*; if the fibre or rings be connected together by branching fibres, in such a manner that a network is produced, the vessel is called *Reticulated;* if the fibres be nearly close together, and the vertical connecting bands be short and equidistant, the vessel is called *Scalariform*, from the markings resembling the rounds of a ladder. Spiral vessels, from their resemblance to the air-tubes of insects, have been termed *Tracheæ* by some authors; the analogy however, is not far fetched, as in both cases, the tubes are composed of transparent membrane, which is kept open by spiral fibre.

In all the above described vessels the spiral fibre has a tendency to unroll; the last vegetable cells, however, which I brought before your notice, were those termed porous ducts, they are of very large size, have their walls covered with large pores, but are not capable of being unrolled; these are the tubes which are so visible to the naked eye in the generality of woods. There are other ducts found in all plants yielding a milky juice; they are called laticiferous or milk vessels, by Schultz, who, from supposing them to exhibit a circulation of their contents, likened them to the capillaries of animals; but by recent examinations, both the existence of the circulation, and the entire continuity of the vessels, like those capillaries, have been proved to be erroneous.

Such then, Gentlemen, is a brief outline of the subjects that have occupied our attention during the last three months. One great object which I have kept in view throughout has been that of endeavouring to impress on you the fact, that each cell of a plant should be considered as having an independent and individual existence; that in one situation it may secrete colouring matter, in another starch, gum, sugar, oil, etc.; and in another the material for the reproduction of its species.

ANIMAL TISSUES.

Let us now proceed to consider the elementary tissues of animals, and see how far they correspond with those of vegetables. In their earliest condition the cells in both are nearly the same; in some cases the cellular character is maintained throughout life; but in others they rapidly undergo certain changes in form, and all appearance of cell and nucleus is entirely lost. The animal cell, though in some degree possessing an independent existence, cannot perform its functions, as for example, of secretion, without being in a certain relationship with a series of vessels carrying the nutritive fluid or blood. In the Animal Kingdom, also, we have membrane as an element; it may be met with in the walls of cells, but principally in the form of an investing membrane, or sheath, in which cases it is perfectly structureless and as transparent as glass; as far as I am aware of, no such extended membrane is found in vegetables without some cellular structure being visible. It is in this coalescence of cell-walls that animal structures principally differ from those of vegetables; in the latter the cell-wall is always present, however old or hard the tissue may be; but in the former, with the exception of those tissues termed cellular, it soon disappears, and, in some cases, all trace both of nucleus and nucleolus with it.

For the purposes of study it has been found very useful to arrange the elementary tissues of animals in a tabular form, and various have been the modes in which this has been carried out by different anatomists; one of the best of these Tables, and the one which, with some few slight alterations, has, from the first, been adopted in these lectures, is the following, given by Messrs. Todd and Bowman, in their "Physiological Anatomy." It would however be impossible, in the short time allowed for these lectures, to go through the entire series of tissues in one course; I have therefore thought it best to begin with the beginning, and when any one of the compound tissues have to be alluded to, then to give you a brief account of it, in order that its relations to the subject under consideration may be the more readily understood.

Tabular View of the Animal Tissues.

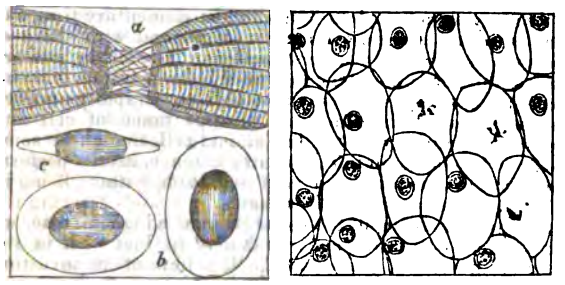
1. Simple membrane: employed alone or in the formation of compound membranes.	Examples:—Walls of cells. Posterior layer of the cornea. Capsule of lens. Sarcolemma of muscle, &c.
2. Fibrous tissues.	White and yellow fibrous tissues. Areolar tissue. Elastic tissue.
3. Cellular tissues.	Cartilage. Adipose tissue. Pigment. Grey nervous matter.
4. Sclerous or hard tissues.	Rudimentary skeleton of invertebrata. Bone. Teeth, etc.
5. Compound membranes: composed of simple membrane, and a layer of cells of various forms, (epithelium or epidermis,) or of areolar tissue and epithelium.	Mucous membrane. Serous and synovial membranes. True or secreting glands.
6. Compound tissues: *a*, composed of tubes of homogeneous membrane containing a peculiar substance.	Muscle. Nerve.
b. Composed of white fibrous tissue and cartilage.	Fibro-cartilage.

Membrane.—Membrane is thin, transparent, and structureless; it never presents any visible pores, although fluids pass through it readily; wherever it exists, it is more or less nourished by blood-vessels, which run on its outer surface, but never perforate it. The first specimen of this elementary texture that I shall show you, is a portion of the posterior layer of the capsule of the lens of the eye of a sheep, and, although somewhat dirty and folded at the margin, you will perceive, that this alone renders it visible, since it is completely structureless, and as transparent as glass, having no trace of cell in or upon it. This membrane, the capsule of the lens, in its early life is very vascular, especially its posterior layer; that is to say, vessels ramify freely on its surface, but they do not enter into its formation or structure.

In its young state both the anterior and posterior layers of the capsule are supplied with vessels; the former I have ascertained are the so-called vessels of the *membrana pupillaris*, and it is a matter of accident, whether it may come away with the lens, or be left behind to close the aperture of the pupil. In the adult state the vessels of the posterior capsule, if they do not quite disappear, are rarely if ever capable of being injected; but in the snakes, frogs, and some other reptiles, they are always present. (a)

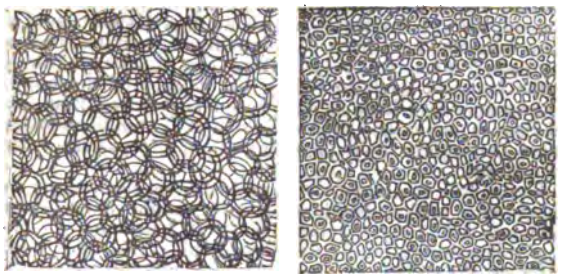
The same simple membrane forms a sheath for the minute elementary particles of muscle and nerve, being called in the former case *sarcolemma*, by Bowman, and in the latter *neurilemma*, by Schwann. You will readily be able to distinguish it surrounding a portion of the fasciculus of muscle from an eel which is represented by *a* in *Fig.* 38, A. I have said that simple membrane forms the walls of cells, as in the case of the blood corpuscles, which retain their original cellular character throughout life; I here show you some of them (*Fig.* 38, *b c*,) as taken from the lepidosiren, in which the cells are nucleated, of an oval figure, and, with a single exception, are the largest known.

A *Fig.* 38. B



Other examples of this elementary membrane occur in the early stages of cartilage and in adipose tissue; of the former, this specimen (*Fig.* 38, B,) from the chorda dorsalis of the lamprey is an example, and in it you will see a remarkable resemblance to the cellular tissue of plants: these cells are sometimes without nuclei; the same thing is also shown in the cartilage of the ear of a mouse, *Fig.* 39, A; but in this object from the ear of a bat, (represented by *Fig.* 39, B,) they are seen to be nucleated, each cell having a transparent nucleus in its centre.

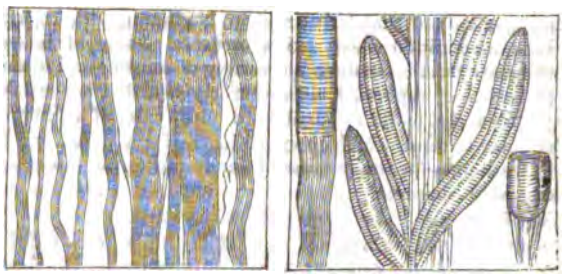
A *Fig* 39. B



Fibrous Tissues.—The next form of tissue is the fibrous or filamentous, entering largely into the construction of tendons, ligaments, fasciæ, etc.; it is of two kinds, called from their respective tints, white and yellow. Examples of the white are best taken from tendinous structures, these being almost entirely composed of it; for the yellow, in an isolated condition, we resort to the ligamenta subflava of the human spine, or the ligamentum nuchæ of the lower animals. The tissue termed areolar, or the cellular tissue of the old anatomists, furnishes examples of both kinds, being composed of an intricate interlacement of the two; the white fibres, which are most conspicuous in the natural state, are made to disappear by the addition of acetic acid, so that the yellow fibres, which remain unaltered, may then be separately examined. This areolar tissue is more extensively used than any other in the construction of the animal body; it forms a connecting material between organs and tissues, and in some cases occurs in enormous masses, as in the elephant, between the walls of the chest and the costal layer of the pleura, so that it may be taken out in handfuls. I here show you a great quantity of this material taken from the chest of the elephant, a portion of which will be also shown you as a microscopic object, in which you will have a good opportunity of observing the nature and appearance of the white fibrous tissue; it occurs either in wide bands, composed of minute equal-sized fibres, more or less wavy, or in separate fibres also wavy; they may, however, be rendered straight by extension.

I now show you a portion of tendon taken from one of the recti muscles of the eye of an ox; it is of silvery whiteness, and, as represented in *Fig.* 40, A, consists of wavy fibres, all taking the same direction. In some parts of the field you may observe portions of the same tissue crossing the wavy fibres; these are derived from the areolar tissue with which the tendon was invested.

A *Fig.* 40. B



C D

Having shown you a portion of tendon as an example of white fibres, let me now make a few observations on the mode in which tendons are connected with muscle. This is not, as has been generally supposed, by union with the investment or sheath of the muscle, but, as was first pointed out by Mr. Bowman, by the white fibres being closely connected with the terminal disc of each fasciculus, as shown by C in *Fig.* 40. The same thing is evident in the muscles of invertebrate animals,—as, for instance, in the common fly. In all works on Entomology you will find that the brown, horny shaft B with which the muscular fibres are connected, has been described as the tendon; if, however, the termination of any fasciculus be carefully examined, a perfect tendon of white fibres will be seen to spring from the terminal disc; by this tendon, as represented by D in *Fig.* 40, the fasciculus is connected with the horny shaft. The tendinous fibres in some of the lower animals, as the mollusca, are of larger size than those in Mammalia. One of the most remarkable is met with in the Terebratula; they are nearly straight, more or less flattened and $\frac{1}{500}$ of an inch in breadth; they are collected together in strong bundles, which present to the naked eye a very beautiful silvery aspect. In birds the tendons, especially in the legs, are of great size and strength, and consist of large bundles of white fibrous tissue, connected together by areolar tissue, in which the blood-vessels run as shown in this transverse section of one of the long tendons from the ostrich; in some birds the tendons are even bony; and those of you who at this festive season have been so unfortunate as to have been helped to the drumstick of a turkey or goose, must be familiar with the long tendons of these birds, which are flattened and tough where they are connected with the muscle, but bony near their insertions.

When a vertical section of a tendon of any large animal is examined it will be found always to present a silvery lustre, and the fibres, collected in bundles, proceed in parallel lines, each bundle being connected with its neighbour by areolar tissue; if a portion of such tendon be dried, all the silvery lustre will disappear, but if such a specimen be viewed by polarised light, not only will the direction of the bundles be seen, but each will display brilliant varieties of colour.

(a) "Transactions of the Microscopical Society." Vol. iii. Part 1.

HARRISON'S SPINAL INSTITUTION.—The Annual Report showed that there were six patients afflicted with spinal disease, on their couches, and that there were also fifty applicants who could not be admitted for want of funds. The income for the past year was 530*l.* 4s. 2d.; the expenditure, 370*l.* 6s., leaving a balance in favour of the charity amounting to 159*l.* 18s. 2d.

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ORIGINAL COMMUNICATIONS.

ON DISPLACEMENT OF THE OVARY.

By EDWARD RIGBY, M.D., &c.;

Senior Physician to the General Lying-in Hospital; Examiner in Midwifery in the University of London.

As it is more than six years since I first offered to your notice some reports on the disorders and diseases peculiar to females, I propose to return to the consideration of those affections with which I commenced these reports in 1844, and illustrate them by another series of cases which have occurred since; in the hope, that, by increasing experience and opportunities of observation, I may be able to confirm various remarks which I then made, correct others, and point out further improvements in diagnosis and treatment.

I will therefore commence with the disorders or functional derangements of the uterine system, beginning with amenorrhœa, a condition which exists under a variety of forms, and arises from a considerable variety of causes; and in this new series of reports, I need scarcely say, that it shall be my endeavour, as far as possible, to select cases of a different character to those which appeared in the former one, and to add fresh ones for the purpose of rendering former observations more complete.

M. P. B., aged 25; single; short and stout.

Sept. 20, 1850.—Constant sense of lassitude to a painful degree; great drowsiness; wakes unrefreshed. The heart it irritable, and easily excited. Bowels torpid, urine thick; the skin is always dry. Is subject to occasional flushings of heat; frequent tinnitus aurium. On sitting down, the muscles of the legs become stiff. She has not menstruated for seven months, although from time to time she has had the precursory symptoms or molimena; had a similar state of amenorrhœa a year and a half ago.

Pil. hydrarg.; ext. hyoscyami, aa. gr. v. alternis noctibus.

℞ Acidi hydrochlor. dil. acidi nitric. dil. aa. ʒi.; liq. taraxaci ʒi.; infusi gentianæ co. ʒvii. M. ft. mistura cujus sumat cochl. magna ij. bis die ante cibum.

℞ Sodæ potassio tart. ʒi. ʒjss. primo mane ex. aquæ.

Nov. 19.—Has remained in the country since last report, taking the medicine as above; has felt better in many respects, but, beyond occasional molimina menstruationis, nothing has appeared. She is weak; the bowels appear to have been tolerably well opened, but the urine is still thick, and she complains of the same flushings, drowsiness, and inability of exertion as before.

℞ Ferri sulph. gr. ij.; magnesiæ sulph. ʒi.; acidi sulph. dil. ♏viii.; syrupi rhœados ʒss.; aquæ menthæ pip. ʒi. M. ft. haustus primo mane sumendus.

℞ Potassæ bicarb. ℈iv.; potassæ nitratis ℈ii.; sp. ætheris nit. ʒss.; aquæ menthæ pip. ʒviiss. M. ft. mistura cujus sumat cochl. magna. ij. bis die post cibum.

Nov. 21.—Is better in every respect; bowels well opened, appetite very good, urine clear. Rep. med.

Nov. 23.—Urine not quite clear, pulse weaker, bowels less open; the sense of lassitude has returned; has had what she describes as a constant stiff pain of back; also stiffness of the legs after sitting down. Adde misturæ potassæ bicarb. and nitr. vini colchici ʒici.

Rep. mist. ferri sulph. c. magnes. sulph. o. m.

Nov. 25.—Bowels still torbid, urine thick; but the pulse is stronger, and the sense of lassitude is less.

℞ Pil. hydr. ext. hyosc. aa. gr. v.; M. ft. pil. ii. altern. noctibus sumendæ. Rep. med.

Dec. 14.—Returned to her residence in the country after the last report, and has continued the medicines then prescribed. She writes to say that the catamenia had appeared "most satisfactorily," with a marked relief to all her symptoms.

April 5, 1851.—Has returned to town with many of her former symptoms; the catamenia have continued to appear, but have gradually diminished to a mere trace at the last period; the urine is turbid; the skin is dry, almost scabrous; there is the same drowsiness and lassitude, but in less degree.

℞ Liq. potassæ ♏x., potassii iodidi gr. ii., decoct. sarsæ co. ʒi. M. ft. haustus ter die sumendus.

℞ Pulv. guaiaci, magnesiæ carb. aa. gr. x. M. ft. pulv. o. m. s.

The above case is one of amenorrhœa, resulting from, or at any rate connected with, general derangement of the assimilating functions. The torpid bowels, loaded urine, irregular flushings of heat, general lassitude, &c., point to this condition. The large deposit of fat of comparatively recent formation, and the disposition to rheumatic stiffness of the muscles, especially of the lower extremities, confirm this view. Sanguification had evidently been for some time very imperfect, the circulation has become more and more impaired, and amenorrhœa an almost necessary consequence of the insufficiency to supply the monthly secretion. The first step of my treatment was to rouse the liver to greater activity by means of a gentle alterative, to improve the tone of the stomach by a form of alterative tonic to which I am much attached, and to move the bowels by a saline laxative. In such conditions of the system, it of great importance to obtain an increased action of the liver, not only for improving as well as increasing the biliary secretion, but also for the purpose of throwing out from the circulation large quantities of effete matter which had hitherto impaired its various functions. The nitro-muriatic acid and taraxacum, given in a mild bitter infusion, form an excellent tonic to promote these objects, as also to render the functions of digestion and primary assimilation more perfect. I preferred the Rochelle salts for a laxative, as there is no doubt that the tartrates are a valuable class of remedies in removing the acid and loaded state of urine which generally exists in these cases.

My patient, being in the country, pursued these remedies longer than I had intended; so that when I saw her again, after an interval of two months, the relief experienced was but partial. Although better in many respects, her more prominent symptoms had been but little altered; there was the same drowsiness and lassitude, the same turbid urine, &c., as before. I therefore determined to keep up a brisk action on the bowels by means of a chalybeate purge every morning, and give a mixture of carbonate and nitrate of potass during the day. The combination of ferri sulphas with the mist. menthæ sulphurica of the pharmacopœia of St. Bartholomew's Hospital, is peculiarly useful in these cases. ʒi. of magnesiæ sulph. with 2 grains of sulphate of iron, will produce as much effect as three or four times that quantity without it; it enables us to keep up a brisk action in the bowels, which, but for the steel, the strength of the patient would not have borne; while, on the other hand, the sulphate of magnesia enables us to give steel where we otherwise could scarcely have done it. It may be fancy on my part, but I cannot help thinking that this form of chalybeate laxative tends to reduce the calibre of the bowels more than most others, for, if its action be watched, it appears to clear them out, and reduce the size of the tumid abdomen, more thoroughly than almost any other, except a large dose of calomel.

Under this treatment she improved more decidedly; but there were still indications of a rheumatic taint, which, although I had noticed from the first, I had not directed any treatment especially for them, hoping that they would yield to the course of alterative and purgative medicine which I had put her upon. Although the pulse was feeble, I preferred trying the colchicum in small doses, combined with the saline mixture which she was taking. It is difficult to say how colchicum acts upon the system; combined with saline, it certainly affects the liver, sometimes producing a copious discharge of yellow bile, like that of infancy, with great relief. Its action on the kidneys in relieving gouty or rheumatic symptoms is not so clear. The late Dr. Prout considered that it promotes the secretion of lithic acid or lithate of ammonia from the urine; and I cannot help thinking, that the increased turbidity of the urine, after taking it, was due to this effect, as the other symptoms had decidedly improved. Her health continued to improve, and the catamenia appeared in about three weeks afterwards.

As, however, this state of the system has only been alleviated, not subdued, and the amenorrhœa evidently inclined to return, I have put her upon a course of liq. potassæ, iodide of potassium, and sarsaparilla, regulating the bowels by guaiacum and magnesia.

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PRACTICAL OBSERVATIONS
ON
DISEASE OF THE EAR;
WITH RECORDS OF CASES TREATED AT ST. MARK'S HOSPITAL, DUBLIN.

By W. R. WILDE, F.R.C.S., &c.

[Continued from page 405.]

No. 4.—SYPHILITIC INFLAMMATION OF THE MEMBRANA TYMPANI ON BOTH SIDES.

January 24, 1850.—P.L., 30, a policeman, with fair complexion, light hair, and eyes; has complained of deafness, unattended with pain for one month. Had a primary syphilitic sore about three months ago, and lately suffered from sore throat; has slight copper-coloured patches upon the skin of the forehead, but does not exhibit symptoms of any other eruption. The deafness came on in both ears about the same period, and occurred during the day-time.

Left Ear.—Meatus dry, polished, of a grey colour, and totally devoid of cerumen; the tympanal membrane shows an exceedingly well-defined subacute inflammation. There is a pinkish hue, like that of a rose leaf all over it, but it still preserves its polish, and has not become collapsed or altered in shape: a tolerably well-defined crescentic opacity margins the inferior attachment of the membrane. The patient can inflate the drum, and thereby render the vascularity of its external membrane more intense, and of a darker red; has a singing noise in this ear, and only hears the watch when pressed against the auricle.

Right Ear.—Meatus paler, more polished and opaque than on the left side. Tympanal member is redder, and also somewhat collapsed, so that the malleus projects very prominently. Has an intermitting noise in character like that experienced when a conch-shell is held to the ear. Cannot fully inflate the drum on this side, but the effort to do so renders the tympanal membrane of a deeper colour. Cannot hear the watch on this side.

He has ulceration of the soft palate, a deep excavation, with a yellowish ash-coloured slough coating its bottom, existing on each side of the uvula. He did not get mercury for the original sore. A pill of two grains of calomel, one of blue pill, and a quarter of a grain of opium was ordered to be taken three times a day.

January 30.—The mercury has fully acted upon this man since the last Report. The breath bears the usual taint, although but in a slight degree; the gums, particularly beneath the lower incisors, have become red and spongy, and a line of greyish mucus lies between their margin and the teeth; all of which tell us it is time to be on our guard and, perhaps, to lessen the amount of mercury, lest profuse salivation might ensue. I do not think students attend sufficiently to the symptoms and appearances produced by mercury on the mouth. Among the lower orders, or with hospital patients, the over-action of mercury upon his patient seldom gives the practitioner much uneasiness; but in private practice it is very different. There is a general horror of mercury among the middle and upper ranks, and the prejudices and superstitions which exist on the subject with respect to the mischief it does to the constitution, and the difficulty of "getting it out of the bones," are still as rife among some classes as when a distinguished and titled senator swore, at the trial of St. John Long, that he saw the mercury which had been taken many years before appear in globules of pure quicksilver upon the forehead of a nobleman, drawn forth by the efficacy of the sponge and liniment of the redoubted curer of consumption. The effect of mercury upon the constitution, as well as upon disease, is, as you all know, most variable. With some the slightest quantity will, unless carefully watched, produce salivation; while other persons seem totally unsusceptible of its influence. The abuse, however, which one comes in for in practice, because a patient has suddenly got a very sore mouth, should be borne with philosophic indifference; as although it is in excess, the desired result has been obtained. Some ladies, however, will fret about the damage likely to be done to their teeth more than they did for the disease for which the mercury was given. Few of you have ever witnessed what mercury *can* do when allowed its full swing, or prressed to the extent which it was some twenty or thirty years ago. Very few of you have now an opportunity, I am happy to say, of witnessing many cases of mercurial erythema, or the prostration of erythismus, or seeing every tooth in a patient's head shaking, and streams of saliva pouring from his mouth, from the long-continued use of the mineral,—when the wards of an hospital were, from the quantity of mercury used in them, both internally and externally, by pill-taking, rubbing, and fumigation, rendered mercurial baths, in which the vapour of fetid breaths contended with the stench of sloughing ulcers, and the effluvia resulting from mercurial diarrhœa. Such times and scenes, I say, have passed, and the public and the Profession have reason to rejoice thereat. Practitioners are now satisfied with the mild exhibition of mercury, and deem it more prudent to keep up a gentle action for some time than to allow profuse salivation to occur. Yet, notwithstanding all this, cases will happen the reverse of the unsusceptible, in which the mineral acts suddenly and violently, and its effects are scarcely within control. This will occur occasionally in peculiar constitutions, where there is a special idiosyncrasy. Profuse salivation rapidly sets in, the glands of the neck enlarge, the mucous membrane of the throat and inside of the mouth runs rapidly into ulceration, and the tongue swells to an alarming extent, so as to resemble a case of glossitis; but it is white, slimy, and looks like a piece of macerated liver, and it not uncommonly protrudes between the teeth. The most alarming symptoms occasionally follow, and in one instance death occurred, in this city, some years ago, from swelling of the tongue in the manner which I described, and as the result of sudden and uncontrollable mercurial action. Sometimes the cheeks and other parts of the face swell to a great extent. It is scarcely necessary to tell you, that deglutition and respiration must be considerably impaired under such a state of things.(a) Now, it is, as I already observed, because I do not think students attend sufficiently to the appearances which mercury presents in the mouth, and also because cases of excessive mercurial action must occasionally occur in a large public institution like this, where it is absolutely necessary to give mercury to external patients, many of whom are either careless and indifferent about themselves, or are, from their domestic circumstances, more than ordinarily exposed to the vicissitudes of the weather, that I wish particularly to draw your attention to the earlier and milder symptoms of mercurial action. The fetor of the breath is a variable sign, though when present it is an unfailing indication; but it is seldom commensurate with the amount of mercurial action. Sometimes the breath is naturally heavy, or even fetid, and then it is difficult to distinguish the one from the other. By the way, I may here mention, that I do not remember a single instance in which mercurial action was fully produced in a person possessing naturally what is termed "bad breath," that that most unpleasant affection was not removed by it. In addition to the appearances of mercurial action already noticed in this man's case, there is some swelling of the gum behind the last molar tooth of the lower jaw. This I look upon as an almost invariable symptom, and sometimes it is the only one which can be produced. The mucous membrane between the tooth and the angle of the jaw swells and overlaps the tooth, rendering mastication very unpleasant, and giving rise to the disagreeable feeling which one experiences when cutting a wise tooth. You should always look into the mouth, as well as examine the gums beneath the front teeth, or smell the breath, where you wish to assure yourself as to the progress of the medicine. Another early symptom is, a slight discoloration of the mucous membrane upon the inside of the cheeks: it loses its fresh red colour, and becomes whitish, particularly opposite the crowns of the lower teeth, the indentures of which soon manifest themselves upon it, and in a short time, if the medicine be not lessened, ulceration will ensue in that locality. One of the first places, however, where any breach of surface occurs upon the mucous membrane is immediately below the red border of the lower lip, opposite the junction of the gum with the lower incisors. About the same time, the tongue becomes slightly swollen, and its edge deeply indented with the lower front teeth; it is of a greyish white colour, and covered with slimy saliva. All the glandular apparatus within the mouth is excited to excessive action. The papillæ of the sublingual

(a) Among the remarkable effects of mercury, I may mention the case of a lady who once consulted me on account of profuse salivation, which had continued five years.

ducts become swollen and erect. The ulcerations upon the inside of the lower lip and opposite the buccal glands upon the cheeks present the appearance of aphthous sores, greyish in the centre, with a slight straw-coloured margin, and saliva mixed with mucus pours from every possible outlet.

In this case the mercury has acted fairly and legitimately, and we find that the disease for which it was administered has already given way. In the right ear the pinkish colour of the drum-head is very much lessened, the polish has been in part restored, and the patient says that the singing noise has greatly decreased. He now hears the watch when applied to the ear. Upon the left side all the symptoms have improved, and the hearing-distance has increased about two inches. In using the watch for the purpose of measuring the hearing-distance from time to time, you should bear this circumstance in recollection. If you apply the watch to the ear and then draw it slowly from it, the deaf person will be able to catch the sound (the ear appearing to retain the impression of the ticking) at a somewhat greater distance than if you approached the watch to the ear.

The amount of mercury was ordered to be lessened to one pill night and morning, and directions were given to the patient to decrease it still further if the mouth became sorer. The ulcers upon the soft palate, which have assumed a more healthy aspect than before, were brushed over with a strong solution of nitrate of silver.

Feb. 1st.—This patient is greatly improved in every respect; hearing increased on both sides. Upon the left the tympanal membrane is much paler than at the time of the last examination, and the noise completely ceased in this ear upon the previous day, without the man being conscious of any crack or sudden sound at the time of its cessation. Upon the right side, the membrane has improved in colour and gained more polish. The ulcers in the throat have thrown off their sloughs and present a healthy appearance; the mercurial action upon the mouth is still manifest. The dose of the mineral to be decreased to one pill daily.

Feb. 5.—A still further improvement has taken place since last report. Upon the right side, the membrane is yet slightly pinkish; the hearing as before. Upon the left side, the membrane has greatly improved, and is now nearly of a natural colour; hearing distance seven inches; throat healthy; mercurial action still manifest. Ordered four grains of hydriodate of potash and one drop of tincture of iodine to be taken in decoction of bark three times daily.

Feb. 9.—General health and appearance much improved. Mercurial action scarcely perceptible; but the gums are still slightly retracted beneath the lower incisors, and exhibit a red, pulpy margin. Ulceration of the throat has quite ceased, and the cavity upon the left side is nearly filled up. He says his hearing is completely restored, but the noise comes on occasionally in the right ear. Upon this side there is some secretion of cerumen upon the posterior surface of the meatus. The tympanal membrane is still slightly pinkish, but bright, thin, and polished, reflecting the light from its lower convex portion. He can inflate the membrane with facility, and upon applying the stethoscope over the meatus while the patient presses the air into the ear, a slight gurgling noise can be perceived as the air gains the cavity of the middle ear, which, in all probability, contains a quantity of mucus, exuded from its lining membrane during the process of the inflammatory action, which there can be little doubt extended to it and to the lining membrane of the Eustachian tube, parts that we did not see, as well as the tympanal membrane which we did see. Left side: hearing-distance ten inches; meatus still red, shining, and devoid of cerumen; tympanal membrane opaque, but thin and polished. A couple of large red vessels traverse the membrane along the insertion of the malleus. Upon this side the air does not reach the cavity of the middle ear so well as upon the right, and it has a more squealing sound, probably arising from the thickened membrane and the decreased calibre of the Eustachian tube. Ordered to continue the iodide of potassium, and to apply counter-irritation by means of small blisters behind the ears occasionally for the next fortnight.

No. 5.—IMPACTION OF AUDITORY PASSAGES WITH CERUMEN—THICKENING OF TYMPANAL MEMBRANE ON LEFT SIDE.

January, 1850.—M. B., 25, literary teacher, complained of general deafness, with singing noise in both ears. Upon inspection the external auditory passages were found to be corked up with hard inspissated cerumen. This was removed by syringing with warm water in the ordinary manner, upon which hearing was quite restored in the right and partially in the left ear. A few days having been allowed to elapse in order that the meatus and external surface of the tympanal membranes might regain their ordinary appearance after the vascularity produced by the pressure of the wax, and the excitement and irritation caused by its removal had subsided, this case was again examined.

Right Ear.—Hearing-distance two feet and a half; the meatus dry, but no appearance of disease presented upon inspection with the speculum.

Left Ear.—Hearing-distance four inches; walls of meatus covered with flakes of thickened whitish cuticle, which present the appearance of partial maceration, and nearly fill up the cavity. Upon removing these with a forceps, the surface beneath presents a florid red colour. The membrana tympani is thickened throughout, and exhibits patches of vascularity, which deepen into a continuous red surface, above and behind the insertion of the malleus. He has a confused rustling noise in this ear. The surface of the meatus and the membrana tympani was washed over with a solution of nitrate of silver, five grains to the ounce. A dose of aperient medicine was prescribed for him. He was directed to wear a bit of cotton wool in the external aperture so as to exclude the cold air. In ten days this case was again inspected. The meatus on the left side had resumed its natural colour, but was very dry and somewhat scaly. The tympanal membrane had cleared considerably since last report, the lower portion in particular had become quite free from vascularity, but a few large vessels could still be observed coursing behind the manubrium. He could inflate the tympanal membrane after the manner described in the former cases. Hearing-distance had increased to fourteen inches; noise had very much lessened, and occasionally intermitted altogether. The surface of the membrana tympani was washed over with the solution of caustic again, and the walls of the meatus smeared with brown citron ointment applied in a melted condition.(a)

The chronic inflammation of the entire external auditory aperture in this case appears to have been the result of mechanical pressure and the irritation of the hardened wax. As very many other cases of deafness and diseases of the ear, either arising from or connected with the cerumineous secretion will no doubt be referred to in the course of these clinical expositions, it is unnecessary to dwell at greater length upon this instance.

ON THE INFECTIOUS ORIGIN AND PROPAGATION OF CHOLERA.

By ALEXANDER BRYSON, M.D., Surgeon R.N.

On the decline of cholera, in the autumn of 1849, as great contrariety of opinion still appeared to exist respecting its primary source or cause, its modes of propagation or extension, and also as to the various remedial measures which had been employed in the treatment of that formidable malady, the Director-General of the Medical Department of the Navy caused a circular letter to be sent to those medical officers who were known to have had the best opportunities for observing and studying the nature of the disease during its recent invasion, calling on them, in connexion with other questions, to state whether in their opinion there had been, during the two or three preceding years, any atmospheric cause in existence sufficient to account for the general prevalence of cholera throughout the kingdom; and, whether, if they had been led to believe in the existence of an epidemic cause, they considered its influence on the human constitution had, in particular districts, been increased or aggravated by the presence of local causes, such as effluvia, gases, or vapours. If they considered the disease to be contagious or infectious, they were requested to state in detail the principal facts which, from their own experience, they could bring forward in support of that opinion.

A considerable number of reports, containing much valuable information, were thus placed at the disposal of the Director-

(a) For a description of this ointment see my paper upon the Affections of the Membrana Tympani, in the *Dublin Quarterly Journal of Medical Science*, for February, 1848, p. 85.

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General; these it is now proposed to examine, in order if possible to determine, from the facts detailed, what are the proofs in favour of the disease originating from an epidemic cause or constitution of the atmosphere; and, in contradistinction, what evidence there is in favour of its being a disease which, like small-pox and measles, occurs occasionally from natural but unknown causes, and propagates itself by means of a specific virus, emanating from the bodies of the sick. In commencing this inquiry it will, in the first place, be necessary to make some extracts from those reports, in which local and apparently independent eruptions of the disease have been described; and then to give in detail the opinions of the several reporters, taking them up, as nearly as possible, in their order of date, that is, according to the date of the occurrences described, so that they shall not be out of place in the chronological scale of the epidemic.

The first, then, to be noticed is from Mr. Verling, the surgeon, of Haulbowline Hospital, at the Cove of Cork, or, as it is now called, Queenstown. In this Report it is observed, "I am not aware of any peculiarity having existed in the state of the atmosphere during the two or three last years, which could have been assigned as a cause for the outbreak of cholera." The first case was received into the hospital in March, 1849, and necessarily created great alarm, as the disease had not then approached within a considerable distance of Cork. The patient (a boy) was brought from the Avon steam-vessel, which had only left Limerick on the preceding day. Cholera was then raging in Limerick, and the patient, while the vessel lay there, had been repeatedly on shore, and in those parts of the town where it was most prevalent. He recovered, and no other case occurred at that time, either in the hospital or in Queenstown, or in the steamer.

About the middle of May, however, cases began to occur in Queenstown, infesting more especially the low, damp, and dirty parts of it; it is observed that "nearly all the seamen received into the hospital had spent their period of leave in one of these localities, pre-eminent above all the others for its offensive effluvia and want of ventilation. The patients after their reception into the hospital, were kept in a ward by themselves, but no great restriction was enforced as to intercourse with other persons in the establishment, and none of the inmates contracted the disease." Hence it was inferred that "in the ordinary acceptation of the term it was not infectious, but that it resulted from local causes." The same mode of reasoning, whether correct or not, is applicable to the case of the boy who was seized on board the Avon, after exposure on shore at Limerick. The impossibility of separately distinguishing the effects produced by local and personal causes effectually precludes the possibility of assigning these and similar cases exclusively to one or the other of these sources, while the non-propagation of the disease in the hospital and steamer might lead to the inference that it was not infectious.

With respect to the first appearance of the disease at Plymouth, it is proper to state, that so early as the 9th of April a female convict-ship anchored in the Sound, in which several deaths from cholera had occurred during her passage from the Thames. She remained in quarantine until the disease ceased, and then proceeded on her voyage. In this instance, the disease did not extend to the shore, or to the shipping in the neighbourhood. Towards the end of May, however, a small fishing-smack from Dieppe arrived at Noss, a village situated on the estuary of the river Yealm, about six miles distant from Plymouth. None of her crew were actually ill of cholera when she arrived, nor had any of them suffered from it on the passage, but the disease was prevalent at Dieppe when she left. The first person from Noss who visited this vessel remained in her some time and drank a quantity of brandy. On landing, he was seized with cholera, which carried him off in nine hours. The disease then immediately afterwards broke out simultaneously at two opposite sides of the village, and rapidly spread all over it. This might be set down as a coincidence, but it would certainly form a very remarkable one.

On the 5th of June another vessel, the American Eagle, with emigrants on board, amongst whom the disease had broken out on the passage from the Thames, anchored in the Sound. In this instance quarantine was not observed; the people on board landed, and mixed freely with the inhabitants of the town without communicating the disease to them, so far as was known. About this time, however, exclusive of Noss, scattered cases, which were attributed to the general epidemic cause supposed to be in existence in other parts of the country, began to occur in some of the adjacent villages; and in the beginning of July, the disease broke out in Plymouth; taking, according to one account, a westerly direction, it extended to Stonehouse; while, according to another, it first appeared in Stonehouse, secondly in Plymouth, and next in Devonport and Stoke. On the 12th of August it appeared at Torpoint, on the opposite side of the harbour; and on the 17th, at Kingsand and Cawsand.

With the exception of the apparent transmission of the disease from the fishing-smack to Noss, there does not appear to have been at the time any good grounds for believing it was propagated by infection. Although many cases were brought from without into the Naval Hospital at Stonehouse, yet not one of the residents or patients suffering from other complaints were attacked with the disease in its more malignant form.

"About the middle or the latter end of June, scattered cases began to occur in the neighbourhood of Chatham. One of these proved fatal in the parish of Stroud on the 20th; and early in July there were several fatal cases at Rainham, a village about four miles south east of Chatham; while almost simultaneously it made its appearance at Cliffe, six miles to the northward, and there was one case at Upnor, immediately opposite to the dockyard, on the north side of the river." According to our usual mode of reasoning respecting cholera, it was not deemed possible to attribute these cases to imported infection, or indeed to any other cause than that which was supposed to exist in the atmosphere hovering over the respective localities at the time. On the 29th, however, an itinerant musician, who had come from Gravesend, was found lying by the roadside, at a short distance from Chatham, ill of cholera; he was taken to the Medway Union, where he died on the following day. In the course of a day or two afterwards, the man who attended him in his illness was seized with the disease, and died of it also. These appear to have been the first cases which occurred in Chatham; and Mr. Drummond justly observes in his report, that the occurrence of the one case so soon after the other is strong evidence in favour of the infectious theory.

No other case occurred in the workhouse for nearly a month afterwards, although, on the day following that on which the musician was found by the road-side, the 30th of July, three fatal cases were reported to have occurred in Church-lane, adjoining the marine barracks, and others immediately followed in other parts of the town. But it did not extend to Brompton nor to the Brompton barracks, which are considerably elevated above the rest of the town. In the latter, there were nearly 4,000 men, who entirely escaped, while the marines in a barrack at the base of the same height, and close to the Medway, suffered severely.

It would thus appear, that cholera must either be propagated by a specific personal virus; or, if it arise from terrestrial or atmospheric causes, that these are developed in circumscribed spots, and do not pervade the atmosphere generally, nor exist in it, unless in a modified form, for any great length of time. Otherwise, scattered cases would have occurred simultaneously all over the town, but more especially in places immediately to leeward of those in which cases were daily occurring. This view of the question is further strengthened by the following circumstance. Mr. Drummond observes that "from this period (the 30th of July,) garrison orders were issued, prohibiting any communication by the men in the several barracks with either of the towns, and this measure for a time seemed to preserve them from the epidemic."

A large number of cases were treated in Melville Hospital; but here, as at Plymouth Hospital, although, including patients, nurses, medical officers, and others, there were about three hundred persons within the walls of the establishment, and although there was constant and free communication with the cholera wards, at all hours of the day and night, the disease, in its malignant form, was not communicated to a single individual. Still, many of the residents, during the period, suffered from diarrhœal affections, with spasmodic twitchings.

Cholera broke out in the ship Havering while she was proceeding down Channel, on her way to Cork to embark prisoners for Van Diemen's Land. One of the soldiers of the guard was first attacked, early on the 20th of June, when she was about abreast of the Start Point; he had been ill of diarrhœa, however, two days previously. On the same day,

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another soldier was attacked, but not so severely; and on the 27th, the day following, a third had an attack of diarrhœa. Early on the morning of the 28th, the vessel being then off Plymouth, other two soldiers and three seamen were almost simultaneously attacked. Again, on the 29th, five seamen, and on the 2nd of July a soldier, were added to the list of cholera patients. No other decided cases of cholera occurred up to the 7th of July; but a number of cases of diarrhœa—undoubtedly minor effects of the same cause—occurred amongst both classes of men.

In nearly all the cases of cholera, the symptoms first attracted the attention of the patients shortly after midnight or early in the morning. The vessel was new, perfectly clean, and there were no offensive effluvia perceptible on board. The seamen were in bad condition; ill-clothed, too closely berthed, and some of them were not provided with bedding. The soldiers, however, amongst whom the disease first made its appearance, were in good condition, and well supplied with all the necessaries of life. The surgeon superintendent, the officer of the guard, the master and the mates, who occupied the cabins under the poop, and were necessarily, with the exception of the surgeon, in a great measure separated from the men, particularly during the hours when the attacks were most frequent, entirely escaped. On the 29th of June the seamen were removed from their badly-ventilated quarters under the forecastle into the prison. After this, with the exception of one slight attack, no more cases of cholera occurred, although diarrhœa, which however assumed a milder form, continued to prevail until the 8th of July.

The surgeon, in this instance, did not consider the disease infectious; in a second report he hazards an opinion that it may depend on some change in the atmosphere—"very likely a deficiency of electricity."

The preceding are the principal facts which have been mentioned respecting what appeared to be separate and distinct eruptions of the disease. With reference to the second and third paragraphs of the Director-General's letter, the following extracts have been made from the reports, for the purpose of showing the various opinions held respecting the probable nature of the causes influencing its development in the first instance, and its subsequent epidemic extension in various directions over the country.

"I think there can be no doubt of the existence of an epidemic cause—from its gradual progress from India to Europe, and from its general diffusion over Great Britain and Ireland during the last nine months. I believe, also, that this complaint has been much increased in severity from local causes." "A case occurred in the Admiral's tender, lying off the principal sewer of Sheerness, which in all probability originated in that way, *i. e.*, from offensive effluvia, as no other case appeared on board of any of the ships in harbour. I do not consider cholera contagious under ordinary circumstances; but, where many patients are crowded together, and the ventilation is imperfect, it may, like some kinds of tropical fever, become highly contagious."(a)

"I think that everything connected with cholera seems to prove that it has its origin in places where it shows itself, and that the essential cause is evolved from the soil or subsoil, which, mingling with the air of the place, enters the system, producing mediately through the lungs its specific effect. The diffusion and aggravation of the disease is assisted by decomposing organic substances, but it is extremely doubtful whether these latter of themselves can excite it."(b)

"That a telluric or an atmospheric cause has been in operation for these last two or three years I think highly probable, taking into consideration the potato blight; but what it is remains as yet a mystery." "As to the contagiousness or non-contagiousness of cholera, the little experience I have gleaned, leads me to view it as non-contagious, (except, perhaps, when cases are congregated in masses,) for many of our workmen lost a part of their families—a few, the whole, while they themselves remained intact. This is something more than mere negative evidence, seeing that they were for part of the twenty-four hours exposed to the same exciting chlereal cause that produced the disease in other members of the family. Moreover, in many instances, one individual of a family has been affected without any of the others suffering. These circumstances could hardly take place, if cholera were of that contagious nature which some have asserted."(a)

"I am not aware of any conclusive evidence of the existence of any peculiarity of atmospheric constitution within the two or three last years sufficient to account for the general prevalence of cholera; but all I know about the disease leads me to believe in the existence of an epidemic cause, the influence of which seems to have been greatly increased or aggravated in particular districts by local causes, such as effluvia, gases or vapours." "I consider the disease to be neither contagious nor infectious; but under very unfavourable circumstances, such as over-crowding, imperfect ventilation, &c., it has sometimes seemed to be contagious."(b)

"It will be observed, that the variations of the thermometer were extensive on those days on which cholera and diarrhœa were most prevalent, and that the ranges of the barometer were low." "That the atmosphere carried a poisonous quality was obvious, from the number of deaths. Although many of the intemperate and exhausted were carried off, still frequent deaths took place amongst persons on whom no such causes could have operated." "Although I do not consider that cholera depends upon personal communication and infectious influence for its propagation, I do not hesitate to allow that the products of cholera patients frequently prove prejudicial to the human body, as exemplified by the indisposition of medical men and nurses, induced during their attendance on the sick."(c)

"It is evident from cases about to be given, that it was increased by the intercourse of the inhabitants of this parish (Stonehouse) with those of Plymouth, and, consequently, must be contagious."(d)

"With respect to contagion or infection, it cannot be advocated from anything that has come under our notice in this hospital. Patients have been admitted in all stages of the disease, many of them from houses in Stonehouse, where it was sweeping away almost every inmate. The cholera wards were never left without the presence of a medical officer; the nurses were constantly hanging over the patients, lifting and assisting them in every way; unavoidably inhaling their cold breath, and pressing their hands upon the anus, restraining the passage of the contents of the gut after enemata had been administered; yet no one suffered either from cholera or diarrhœa; neither did the washerwomen suffer, although they washed the clothing and bedding on which the patients had lain, which were commonly saturated with the rice-water motions. We must conclude, therefore, that cholera is not communicable, but that it requires the media of bad air, bad living, filth, and wretchedness, through which to strike its victim."(e)

"I have no reason from what I have seen to consider cholera as contagious. There must have been nearly 200 persons living within the walls of the hospital at the time it prevailed, yet no one showed any symptom of the disease. At the same time, it appears more than probable that, like some other diseases, it may, under certain influences, become communicable from one person to another."(f)

"So far as my observations go, they incline me to think it most probable that cholera is propagated by contagion." "I think it is highly probable it has spread from India over the world by contagion."(g)

"That something superadded to the causes just mentioned, (filth, bad drainage, bad ventilation,) and which re-acting on them in some unknown way, produces the series of morbid phenomena which is expressed by the term cholera, it is as impossible to deny as it is to deny the existence of cholera itself; but what that something is, whether a chemical product, a modification of atmospheric electricity, a telluric emanation, or a microscopic sporule, or none of them, is a question which yet remains to be decided."(h)

"With regard to infection I am inclined to the opinion that the disease is neither infectious nor contagious."(i)

"A consideration of the circumstances which attended

(a) Chas. Smith, Esq., Surgeon, R.N.
(b) Dr. Wilson, Inspector of Hospitals, &c.

(a) James Henderson, Esq., Surgeon, Dock-yard, Portsmouth.
(b) Dr. D. G Miller R.N.
(c) Dr. Millar, Royal Marines, Stonehouse.
(d) Mr. Kay, Assistant-Surgeon R.M.
(e) Dr. Rae, Plymouth.
(f) Deputy-Inspector Drummond, Melville Hospital.
(g) A. Muirhead, Esq, Surgeon H.M.S. Ganges.
(h) Dr. Evans, Deputy-Inspector, Woolwich.
(i) P. Suther, Esq., Surgeon, Chatham Dockyard.

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the outbreak, course, and decline of the disease, have led to an opinion that the poisonous agent is contained in the atmosphere. Persons of credibility observed a peculiar unpleasant odour pervading a narrow tract of the atmosphere, and perceptible only for a short time, an assertion which, if corroborated, would add an important testimony to its atmospheric nature."(a)

"Contagion or infection is not borne out by observation in this department, one nurse or attendant only having been attacked; and this man lived all the time on board the hulk where the disease first showed itself." "From the general spread of the disease over the kingdom, I am inclined to believe it is essentially endemial, but aggravated in certain places from local causes, such as bad sewerage." (b)

"That cholera is epidemic, there can be no doubt, and that the general prevalence of the disease is much increased and aggravated by local causes there can be as little." "Now that the epidemic has disappeared, I feel more and more satisfied that my first impression was the correct one. Cholera is not contagious, but depends on some peculiar atmospheric condition not yet ascertained." (c)

"Of the existence of an atmospheric poison as the exciting cause, and of its maintenance and aggravation under the individual or collective influences which are admitted to have a tendency to vitiate the atmosphere, such as effluvia, gases, vapours, or exhalations from stagnant deposits, confined and filthy habitations, &c., I have not a shadow of a doubt. Of its non-contagious character, I have as little doubt." (d)

"The greatest liability to cholera, and its greatest mortality, were coincident with a stagnation of the lower stratum of atmosphere, and a diminished evaporation while the temperature was high and the ranges great. My conviction is, that cholera, under favouring circumstances, may be communicated." (e)

"I have no doubt in my own mind, from what I have previously witnessed, that Asiatic cholera, as it prevails in this country, is a truly contagious disease, and that atmospheric influence has little to do in its production, although it may in its extension." (f)

In the majority of these opinions there is little that is new; generally speaking, the reasoning amounts to this,—namely, that there was an epidemic, and because there was an epidemic there must have been an epidemic cause. Whence that originated, of what it consisted, how it acted, was perpetuated for brief but indefinite periods; how it advanced by stages from one part of the country to another—declining here and progressing there—whilst it harmlessly passed by intermediate places, has nowhere yet been satisfactorily explained. Admitting, for the moment, that there did exist some malarial, efficient, aërial, or earthy principle in the atmosphere, capable of producing the disease, has its successive evolution at all times and in different places within the last forty years, from India to Europe in the first instance, and subsequently in this country and in America, been so generally in accordance with the laws of atmospheric diffusion as to afford any reasonable proof in support of the assumption? Most certainly it has not. The disease has extended as frequently against the wind as in the direction in which it was blowing. This could not have happened had the poison or cause been of the nature of a material agent generally diffused throughout the atmosphere, and subject to the ordinary laws of matter. Instead of breaking out and infesting particular spots, or lines of dwellings for three or four weeks in succession, and then passing onwards to others, a vast preponderance of cases of nearly contemporaneous evolution must necessarily have occurred, particularly in populous districts, where the physical and moral conditions of the people were the same, in lines corresponding and continuous with those over which the supposed poisoned wind had swept in a steady current; it might be for days or even weeks without ceasing. If, indeed, the essential cause of cholera be contained in the atmosphere, it would appear, that on the great scale, that is, as regards its general diffusion over a country, it is uninfluenced by the motions of the atmosphere; and, if we may judge by the slow progress of the disease from one country to another, and by its successive stage-like developments, it can no more be wafted about on the surface of the earth than the forces of magnetism and gravitation. On these premises, then, it may be safely assumed that the excitant cause of cholera is not engendered in the air, nor does it exist in it in the form of any miasm, effluvium, or gas, physically resembling any product of the soil with which we are acquainted. If in reality there be any such condition as an epidemic constitution of the atmosphere, it evidently must depend on local emanations; but, as to whether these are of a personal or a terrestrial character, is a question that need not at present be entered upon.

With respect to the state of the weather, and the periodical changes of the seasons in the various districts over which the disease spread, as it does not appear that in these phenomena there was any great deviation or difference observed from what has been common to other years marked by a high standard of health, we can hardly suppose that they had any influence either in the production or the propagation of cholera. While, damp, hazy weather preceded it in one locality, dry bracing weather preceded it in another; in a third it was ushered in with heat, in a fourth with cold, in a fifth with an east wind, and in a sixth with a west. We might suppose that it had progressed in its erratic course, seeking out its peculiar victims in particular places, uninfluenced by wind or weather, climate or season. Neither do the more laboured results obtained from instrumental observation, afford us the slightest grounds for supposing it was in any way connected with meteoric agency, whether as regards its origin or progress. The relative weight, moisture, and, so far as has been ascertained, chemical constituents of the atmosphere, were everywhere the same, or, at all events, nearly the same, as they had been through a continuance of years, when the disease did not exist. But, even although they had not been the same, any observable difference in either of these particulars would not help us to explain why the difference—defect or surplus—should act as an efficient excitant of the disease on one side of the Thames, and not on the other; why the inhabitants on one side of a street should be more than decimated, while those on the other side entirely escaped, both being equally exposed to the influence of the same atmospheric agencies.

The same remarks apply to electricity; for, whether it be quiescent or disturbed, whether stealing silently from cloud to cloud, or bursting through the air with explosive violence, we are not aware that it has the slightest influence on the human constitution, unless, indeed, when man places himself in the path of its destructive discharge. In its latent state, or even when disturbed by natural causes, the experience of ages has not furnished us with a single well-established fact on which to found any one of the vague, unmeaning speculations which have been advanced respecting its influence on health. It is, therefore, imperative that we altogether set aside electricity, as an agent wholly inoperative in the causation or propagation of cholera.

The facts noticed respecting the influence of local causes in favouring the evolution of the disease, but more especially when viewed in connexion with similar facts elsewhere adduced, as bearing on the same question, are so clear and conclusive, that it would, indeed, be difficult to believe that they have not been the means of forcing it into existence in places which might have escaped, had they been in a different condition,—that is, if they had been cleaner, more free from putrid or offensive effluvia, drier, and better ventilated. At Woolwich, the convicts were first attacked in a hulk which lay close to the opening by which a large covered drain discharged its fetid contents into the Thames; and, what is more remarkable even, the first attacks, and by far the greater majority of those that followed, occurred amongst the prisoners berthed on the side of the hulk next to the drain. A solitary case occurred in the tender to the Ocean, which, for a short time, lay in a somewhat similar situation with respect to the mouth of the principal sewer at Sheerness. "At Chatham, a gentleman, whose health was good, although not robust, and who resided in a clean, healthy locality, had occasion, during the prevalence of the epidemic, to superintend the cleansing out of a stagnant ditch at a considerable distance from his house. Whilst so engaged, he complained of an almost intolerable stench, arising from the filth, and feeling himself uncomfortable, he returned home. At his usual hour he retired to bed, apparently in good health. At three o'clock next morning he awoke in a state of collapse, and died nine hours afterwards." At Greenwich Hospital, a

(a) Mr. F. Noot, Assistant-Surgeon R.N.
(b) Dr. Webber, Convict Cholera Hospital, Portsmouth.
(c) Dr. Belth, Assistant-Surgeon, Greenwich Hospital.
(d) J. M'Ternan, Esq., Surgeon, Greenwich Hospital.
(e) Dr. Bruce, Deptford Dock-yard.
(f) Dr. Anderson, Sheerness Dock-yard.

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drain in which filth had been accumulating for many years was opened, when there suddenly arose from its contents an overwhelming stench, which was instantly followed by a most destructive eruption of the disease; the mortality in that part of the hospital nearest the drain being greater than in others more distant. Still, as the same drain had for years previously poured its filth into the Thames alongside the convict hulk at Woolwich,—as vessels had frequently before been moored off the great sewer at Sheerness, and as men of every grade and condition in life have been exposed to the most offensive and unwholesome effluvia, both at Chatham and Greenwich, without being attacked by cholera, it becomes clearly evident that some other cause, besides the exposure to offensive effluvia, must have been in operation to produce the disease at the particular periods in these several places.

"The epidemic poison appears to travel in streams or currents." This seeming peculiarity may be accounted for thus:—First, as regards a country; men, if not generally, frequently live and follow their avocations in narrow tracts, such as along the banks of rivers, in valleys, and by road-sides; and secondly, as regards towns, in streets and lanes. In both these sites, as well from geographical position as from other causes, there are generally accumulations of filth; and if, as is frequently the case, they are situated at low levels, a damp, polluted atmosphere destructive of health, and tending to predispose the inhabitants to be attacked by any prevailing epidemic. Whether cholera be or be not infectious, these circumstances are deemed sufficient to account for the apparent extension or distribution of the exciting poison in streams or currents.

It is observed, that "as from experience we know the effects resulting from the exposure to the malarious atmosphere of the swamps of Africa and of the Pontine marshes, therefore we seek for similar causes to explain the origin of cholera." This, it is well-reasoned, should be received with caution. Remittent and intermittent fevers, depending on malaria, do not occur far from the jungles and marshes which yield these peculiar emanations; the cause of cholera, on the contrary, when once it has acquired epidemic force, extends far from the source of its evolution. Are we then to suppose it is a product of the earth—the result of some physical change? That at certain times, and from unknown causes, there is let loose a specific miasm, which is wafted thousands of miles away from its source; riding—if the expression may be used—on the blast, and retaining without diminution of force its destructive properties for months and years after it has been evolved? Or are we to suppose that this agent is liberated from the soil at different, but yet not very distant points, extending in lines across a country, as if the earth itself were diseased, and had its lazar spots, out of which issued a lethal product of the malady, inimical to man, and to man only? Fairly examined, neither of these propositions (although involved in the theory of an epidemic cause,) can stand against others less extravagantly conceived. For instance: we cannot imagine or suppose, that in 1817 there issued from the grand foyer at Jessore a poison which, dividing into continous streams, passed over India, Europe, and America. Neither is it possible to conceive that the soil should cease to give out the poison at the spot where it first issued, but continue to send it forth at short intervals for several successive years, not generally over the surface of the earth, but here and there at points sometimes distant, sometimes contiguous, yet never at any great distance from the principal channels of intercommunication between towns, tribes, and nations; at least, we know of no similar agent, influence, or law in nature which can be adduced in support of an hypothesis so formed. If the same mode of reasoning be applied exclusively to the atmosphere, we are equally at a loss to comprehend how a distempered portion of it could extend to so great a distance without being dispersed and lost amidst the ever-varying currents by which it is disturbed. That the exciting cause of cholera is either so produced or disseminated is clearly at variance with all the known laws of chemistry and pneumatics. God—if it be admissible so to speak, has mercifully ordained, that neither the sea nor the air shall become corrupt. In each there are inherent powers of elimination which speedily remove from them all abnormal or obnoxious impurities. The foul effluvia and smoke thrown into the one from the vast crater of London; and the horrid stream of liquid filth drained away from its base by the Thames into the other, are not traceable in either ocean beyond a few miles from their respective sources. The theory of a distempered condition of the atmosphere, depending on natural causes, would, therefore, appear to be utterly untenable. Considering the extent of space it occupies exterior to the earth; the varied and dissimilar nature of the earth's surface over which it sweeps; the incessant changes it undergoes in relation to its specific weight, by the influence of heat,—considering how it is disturbed by storms and currents, washed by the frequent descent of rains and vapours,—we need hardly, it is assumed, seek for other arguments to demonstrate the improbability, if not the impossibility, of a disease being induced by the presence of a morbific agent extending in streams over regions so widely separated as India, Europe, and America; unless, as hereafter to be noticed, it be maintained by local reproduction.

(To be continued.)

CASE OF ACUTE NON-SUPPURATIVE PHTHISIS,

FATAL IN THREE WEEKS FROM THE FIRST APPEARANCE OF GENERAL SYMPTOMS.

By STANHOPE TEMPLEMAN SPEER, M.D., Cheltenham, Formerly Clinical Assistant at the Brompton Consumption Hospital.

C. P., aged 24 years, of marked tubercular diathesis, had suffered for upwards of ten months from a strumous affection of the right forefinger-joint, finally requiring amputation. The wound progressed but slowly, and was still far from being cicatrised, when an examination of the chest was made; more as a matter of curiosity, however, since at this time she complained of no pulmonary symptoms. Under the right clavicle I detected a short, abrupt, inspiratory murmur, and a loud, harsh, very prolonged sound of expiration limited to the supra and infra-clavicular regions. A similar modification of the murmurs was audible on the left side, but over a very limited space; no râles of any kind were to be detected, even upon forced inspiration, in these regions. There was no increase of vocal resonance; no appreciable difference, on percussion, on or under the clavicles, and in the remaining portions of lung no evidences of disease existed. At the time she made no complaint of her chest; but about a fortnight subsequent to this examination she was suddenly attacked with all the symptoms of an acute inflammatory affection, severe cough, scanty viscid expectoration, hurried respiration, lividity of countenance with great anxiety, frequent, small pulse, and high fever. Examination of the chest now revealed intense sonorous and sibilant râles occupying the whole of both lungs; while in certain places the expiration was not only prolonged, but slightly bronchial: in the upper lobe of the right lung a deep-seated subcrepitant râle was audible notwithstanding the loudness of the dry râles in the same situation; no bronchophony, however, was present, and percussion gave no comparative results, the whole front of the chest affording merely a generally duller sound and a little more resistance than it had done previously. The above condition lasted for a few days uninfluenced by treatment. A true subcrepitant râle now invaded the whole of both lungs; no signs of solidification supervened; but only here and there, as before, a bronchial quality accompanied the harsh, prolonged expiration so generally audible over the whole chest both front and back. The expectoration still retained its scanty viscid character, untinged by blood. The breathing became more and more rapid; extreme distress and feeling of impending suffocation supervened; delirium and severe diarrhœa terminated the category of her symptoms, and death took place three weeks after the first invasion of acute general symptoms.

Cases of acute phthisis are, we know, rare in comparison to the more usual and lingering form of the disease; and the one just recorded is remarkable on account of the extreme rapidity which marked its course. I find, in fact, that three weeks is the shortest period mentioned by Louis, Andral, and other French pathologists; while Laennec says that it may run its course in six week. My reason, however, for bringing forward the above instance of acute non-suppurating tubercle, is simply that, although marked by all the more usual symptoms of intense bronchitis, and differing

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completely in its physical signs from the ordinary forms of phthisis, the diagnosis of an acute general development of miliary tubercle was enunciated for some days before death.

The circumstances which rendered this condition very probable were the following:—

1st. The diathesis of the patient. This form occurring for the most part in young or highly scrofulous individuals.

2ndly. The probability (from physical evidence) of a small amount of tubercle having previously existed in the right upper lobe.

3rdly. The evidences of an intensely-inflammatory condition of all the air tubes, without some of the more marked phenomena of ordinary bronchitis.

4thly. The occurrence of bronchial respiration of a low type in isolated spots.

5thly. The general diminution in the absolute resonance of the chest, without signs of complete or extensive solidification.

Lastly. The obstinate nature of the disease, and the persistence of the same character in the sputa, notwithstanding the change in the quality of the râles.

The appearance of the body after death was natural, no evidences of emaciation being visible. Upon opening the thorax, the lungs were found to fill the cavity completely—both were adherent to the chest, especially the right lung at its summit and posterior portions; both were of an iron grey colour, more friable than usual, but still crepitating. On cutting into them, an immense number of small tubercles were found studding every part from the summit to the base, being, however, more thickly congregated in the upper lobes. The majority of them were about the size of a large rape-seed; some, however, were as large as a small pea. These latter were in the condition of crude yellow tubercle, the smaller ones being still in the miliary form; the intervening tissue in some parts appeared inflamed, and heavier than natural. The surface of the lungs had an emphysematous appearance, and felt rough and granular to the finger. The left pleura contained a small quantity of serum, but little fluid was found in the bronchial tubes. No appearance whatever of cavities could be detected in any part of either lung; but here and there a few of the larger tubercles appeared to be just beginning to soften.

The patient had evidently fallen a victim to the asphyxia produced by the rapid development of the morbid deposition in its early stage.

I should not have ventured upon detailing the above case, but for the acknowledged difficulty which pertains to the diagnosis of this form of the disease. The few following propositions may, I think, however, be hazarded concerning it:—

1. That it usually occurs in persons of a highly scrofulous temperament.

2. That it may occur in individuals apparently in perfect health, or may supervene upon a more or less chronic form of the disease, especially in its early stage.

3. That it may be mistaken for intense bronchitis, from which, however, it differs in the following particulars: 1st. The extent to which it occurs, the upper lobes being still more involved than the lower ones, though both are affected, which is rare, even in the worst forms of ordinary bronchitis. 2ndly. In the quantity and character of the expectoration, which remains up to the last viscid and scanty, and uninfluenced by the change which the physical signs give evidence of as occurring in the lungs. 3rdly. In the peculiar character of the dyspnœa, so well described by Fournet, "Recherches Cliniques sur l'Auscultation," Vol. II. page 640. 4thly. That, instead of attaining its greatest intensity, and then gradually subsiding or yielding to treatment, it obstinately resists all the means found efficacious in the ordinary severe forms of bronchitis. 5thly. In the gradual diminution of clearness in the percussion sound, and increase of resistance to the finger, without, however, anything like absolute dulness. 6thly. In the occurrence of isolated spots when a bronchial character of respiration is audible, but without any signs of true pneumonic crepitus or hepatization.

These are the chief points in which, I believe, the two diseases will be found to differ. That they, however, present many points of resemblance cannot be denied, and hence the difficulty always attending the diagnosis of this form of phthisis. But, by a careful consideration of the symptoms with reference to predisposition, and accurate, frequently-repeated physical examinations, it may be generally detected; and of the importance of doing so, with reference to prognosis, there can indeed be no second opinion.

7, Pittville-terrace, Cheltenham.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	May 10.—Medical Society of London. *Subject*: Dr. C. Toogood Downing, "On Catalepsy." Eight o'Clock.
Monday,	May 12.—Geographical Society. Half-past Eight o'Clock.
Tuesday,	May 13.—Royal Medical and Chirurgical Society. Half past Eight o'Clock. Zoological Society. Nine o'Clock.
Wednesday,	May 14.—Geological Society. *Subjects*:—1. Sir R. I. Murchison, F.G.S., "On the Angular Flint Debris of the South East of England; and on its Distribution within and without the Wealden." 2. S. Mackie, Esq., "On a Deposit containing Fossil Mammalia at Folkestone." Half-past Eight o'Clock.
Thursday,	May 15.—Royal Society. Half past Eight o'Clock. Harvæian Society. Eight o'Clock.
Friday,	May 16.—Royal Institution. *Subject*:—Captain W. H. Shippard, "On Central America and the Ship Canal." Nine o'Clock.
Saturday,	May 17.—Medical Society of London. *Subject*:—Mr. Barber. "On a Case of Disease of the Spinal Chord, with General Remarks." Eight o'Clock.

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THE MEDICAL TIMES.

SATURDAY, MAY 10.

MEDICAL TAXATION.

The injustice inflicted on the medical Profession by the imposition of the Income-tax is freely admitted, even by those who advocate its continuance.

The men who propose to renew the lease of this tax, acknowledge that it bears with great severity on those whose cash is coined from their brains; but they add as an excuse, that they are incapable of framing an Income-tax more equably adjusted to the paying powers of the different sections of the community. It is necessary, then, for the public weal, that we, in common with the other Professions, should be robbed by the law,—

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yes, robbed is the correct word, for to levy the same rate on income derived from the daily hard toils of the members of our Profession, and on income derived as rents by those "spacious in the possession of dirt," is to do that which might may enforce, but right can never sanction; and to take money by force, in direct contradiction to right, is robbery. However, granting for the instant, that the Income-tax must be continued a little longer in its present form, is there no mode by which some compensation may be afforded, some relief granted to those who are thus robbed by the strong arm of law? An opportunity now offers to the Chancellor of the Exchequer to render a little justice to professional men. Our readers will have observed, that a House-tax is to replace the Window-tax—that private houses are to pay ninepence in the pound on their rental—shops sixpence in the pound. By the Bill, as now worded, the houses of a majority of the members of our Profession will have to pay the higher rate, while a large number of those who have half-closed surgeries will, we doubt not, open them a little wider, so that their houses may be taxed at the lower rate; thus an encouragement will be afforded to that practice already too prevalent in the Profession, and which its best friends cannot but deplore as an evil—although in some cases, it may be, a necessary evil.

By a slight alteration in the Bill at present before the House, a boon might be conferred on the members of the Medical Profession, without any injury being inflicted on the State. We would suggest, that the clause by which houses used for the purpose of trade, *i.e.*, shops, are rated lower than those used as private dwellings only, should be extended so as to include houses used for professional purposes. There is not an argument that can be adduced in favour of rating houses, portions of which are used as shops, lower than ordinary dwelling-houses, that does not equally apply to houses used for professional purposes. Mr. Dash has his ground-floor arranged as follows: front-room, waiting-room; back-room, consulting-room; third room, dispensary, or surgery as it is called. Now, the whole of this portion of the house is used for business purposes; it is used for the purpose of affording accommodation to his patients, or, in other words, to his customers; and how the fact of each of those customers having to knock at his door, instead of walking directly in, can make any difference in the amount at which the house of the shopkeeper and the house of the professional man should be taxed, we are unable to divine. Why does Dr. Highman live in a large house? Is it for the same reason that his neighbour, the Honourable Mr. Broadacres, resides in a large house? No; the Honourable gentleman lives there to please his own pride, or gratify his wife's or daughters' vanity. The doctor lives in his great house because it is necessary for the purposes of his profession; his patients, or, in other words, his customers—those who come to him to buy advice—would hold it but lightly and pay him but poorly, were he to retire into a small house, in a back street. His large house is as essential for the successful prosecution of his profession, as are the magnificent warehouses of Messrs. Howel and James for the disposal of their gaudy commodities. Nay, so far is the Doctor from requiring his great house for himself, that it is a notorious fact that many resort to means not professional to meet its expenses, *e. g.*, taking inmates of some kind,—because, while for the purposes of their profession the handsome waiting-room and consulting-room are essential, the spacious drawing-rooms and bedrooms are unsuited to their *res augustæ domi*.

We earnestly trust the Chancellor of the Exchequer will, of his own free will, take this matter into consideration; it augurs badly for the future prospects of a nation when its statesmen do justice only by compulsion; when wrongs are righted only because the redresser fears that his place will be lost if he longer refuse; when its law-makers, its great men, its *noble*men, fail to do what is right because it is right, and inflict injustice, or render justice, simply because such acts are the most ready instruments for serving their present purpose. Oh! doctrine of expediency, how many statesmen have unwittingly sacrificed themselves or their places by sacrificing justice to thee! Heaven grant that Sir Charles Wood may not be among that number!

THE GREAT EXHIBITION.

OBJECTS CONNECTED WITH THE THEORY AND PRACTICE OF MEDICINE AND SURGERY.

The records of the human race, filled as they are with military and regal spectacles, afford nothing at all comparable with that which now adorns our Metropolis, and exhibits the characteristics of the present age,—an age eminent above all others for the peaceful arts, for invention, and for scientific progress. Here are gathered together, from all the nations of the earth, the evidences of their social condition,—of their intellectual character,—of their idea of beauty in form, and colour,—and, indirectly, of the nature of the government under which they live. When it is borne in mind, that excellence in any work of art or utility is the result of intellectual as well as manual and mechanical power, it is evident that the relative progress of each nation may be estimated by its productions. Nature produces the raw material, in the bowels of the earth, by vegetation, and by animal life; but even these raw materials are either capable of improvement by the care of man, or are not, in their pristine condition, in a state for use. The metals, for example, rarely occur in a pure condition, but require to be extracted from their ores; the plants, in their wild state, often afford only an innutritious food, and that in scanty proportion; and the animal must be caught and killed, and its organs prepared, before they can be suited to our wants. Here commences the empire of mind over matter: at first the efforts are small, and adapted to the most absolute requirements of food and shelter; but, with the progress of the nation from the savage to the civilised condition, these wants extend, and the mind of man is racked to discover new powers over the crude material. Gradually new artificial forms arise, each more nicely adapted than its predecessor to satisfy these wants, until a new principle is introduced, and the senses are gratified by the beautiful as well as the useful. Still progressing, man endeavours to shake off the burden of labour imposed upon him by nature, in his earlier conditions, by compelling her powers to increase or supersede his muscular efforts,—and machinery begins to appear; at first simple in its character, but gradually evolving itself into those triumphs of mechanical ingenuity—the steam-engine and the power-loom. The absolute wants of man in food and clothing being satisfied, certain of the race, either by the accumulation of wealth, or, what is infinitely better, by the wise provisions of the Government of the country in which they live, being rendered independent of the necessity of labouring for their daily bread, direct the whole force of their minds to the investigation of the laws of nature, by and through the agency of which natural phenomena are daily reproduced and perpetuated. Here commences the dawn of *science*, which proceeds, gradually brightening and extending, until the accumulated facts and inductions become too numerous and extensive for

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the grasp of a single mind. Thence arises the division of sciences,—one man following one branch, another another,—each subdivision of mental labour shedding its natural light on all around. But, were science to stop here, and afford only intellectual pleasure, it would indeed be barren of those glorious fruits which now hang upon its branches. Science educes laws from the phenomena of nature; it investigates the powers and properties of the forces and matter by which we are surrounded; and it directs another quality of the mind, *invention*, to the combinations by which natural phenomena may be imitated or rendered subservient to the useful and the beautiful. Thus, although art, in its first origin, was *empirical*, modern art may be characterised as *intellectual*.

In this grand Exposition of the results of modern art and science are seen all the transition states, from the raw and unaltered produce of nature to the most brilliant of the triumphs of mental and manual power; here, the mastery of mind over matter is most beautifully and instructively exemplified; here are crowded the fruits of countless ages of mental and manual efforts, gradually evolving themselves by slow and measured steps, each solitary or combined effort producing some improvement in beauty or progress towards perfection, until we arrive at the consummation of our own era. All these mighty results are collected in a building which may be termed, for its extent and novelty of construction, the wonder of our age,—a building which now stands where the grass was green last year, reminding us of the fairy palaces of oriental romance which delighted our boyhood. To this grand spectacle almost all the nations of the earth have contributed according to their extent and ability. The States of Europe, as being nearest in geographical position, rank as the largest and most valuable contributors; the mighty Empires of Asia, whose civilisation long preceded ours, but has remained stationary for ages, afford but few results of intellectual labour, their productions being chiefly raw material, and efforts of manual dexterity; these, however, are of an extremely interesting character, arising partly from their novelty to us, but more so from the varied and prolific bounties of nature in tropical regions.

Alluring as it is to enlarge on the general characteristics of this most extraordinary and brilliant scene, we feel it to be necessary to resist such temptation, and confine our observations to the products, either of nature or art, that bear an especial relation to the Medical Sciences. So large is the collection, that we feel almost at a loss to determine the order in which they shall be noticed. Another drawback to our proceeding with regularity, and instituting a comparison between the British and Foreign productions, is the fact, that while Englishmen have shown their characteristic punctuality in arranging their contributions, our Continental neighbours are sadly behind in their preparations.

The following arrangement will, we believe, embrace the whole of our department of the Exhibition; but it will be very difficult, if not impossible, to adhere rigidly to it in this or the succeeding notices, because in so doing we should be compelled to range over the whole building to discover the different articles included in each class. We shall, however, endeavour to keep as closely to our classification as circumstances will permit.

I. Medicinal substances in the raw state.
- A. Vegetable productions:—
  - a. Roots
  - b. Barks
  - c. Woods
  - d. Flowers
  - e. Fruits
  - f. Seeds
  - g. Gums
  - h. Gum-resins
  - i. Resins, etc.

II. B. Vegetable productions more or less manufactured:—
- Infusions
- Decoctions
- Extracts
- Fixed oils
- Essential oils.
- Tinctures, etc.

III. Chemical productions.
- A. Inorganic:—
  - a. Metals
  - b. Metallic oxides
  - c. " chlorides
  - d. " iodides
  - e. " bromides
  - f. Metallic sulphurets
  - g. Salts
  - h. Metalloids
  - i. Mineral acids.
- B. Organic:—
  - a. Cyanogen series
  - b. Uryle series
  - c. Benzoyle series
  - d. Salicyle series
  - e. Cinnamyle series
  - f. Ethyle series
  - g. Acetyle series
  - h. Methyle series
  - i. Fomyle series
  - k. Amyle series
  - l. Glyceryle series
  - m. Organic acids
  - n. Organic bases
  - o. Indifferent non-azotized compounds—
    - Starch
    - Gum
    - Sugar
  - p. Products of distillation of wood, coal, &c.
  - q. Proteine series.
  - r. Gelatinous substances.

IV. Chemical and pharmaceutical apparatus, especially those modifications adapted to the examination of morbid secretions and excretions.

V. Instruments connected with the practice of medicine.

VI. Surgical instruments.
1. Used for exploration.
2. Employed in operations.
3. For the rectification of deformities, &c.

VII. Philosophical instruments.
1. Electric and galvanic apparatus.
2. Polarising apparatus.
3. Thermometers, hygrometers, &c.
4. Microscopes.

VIII. Anatomical models.

IX. Botanical collections.

England, as we have stated above, exhibits an enormous collection in all the classes into which we have divided our department. The chemical and pharmaceutical products (Class 2 of the Catalogue) are characterised by their purity, the large quantities exhibited, the perfection of crystalline forms,—where the substances are capable of crystallization,—and, we doubt not, by their activity and power. It has never fallen to our lot, although we have examined very fine museums of chemical and pharmaceutical products, to behold anything approximating to what is now collected in our Exhibition. Such collections may have been more extensive, but the specimens they contain cannot bear comparison with those now before us. The roots, barks, flowers, seeds, etc., employed as medicinal agents, are of the choicest character. The collection of chemical and pharmaceutical apparatus is very extensive, and neatly arranged. The whole of the principal surgical instrument makers of the kingdom seem to have vied with each other to present a glittering array of surgical instruments and appliances. The philosophical instruments are very numerous and excellent; especially the microscopes, of which, as one of the most important aids to physiological and pathological investigation, we shall have much to say hereafter. A few anatomical models and collections of dried plants complete the British collection.

Our East Indian possessions furnish only specimens of the first class, or raw materials; opium and spices, some natural gums and resins, forming the chief part of the collection. The products of Ceylon are of a similar character. The Ionian Islands and Malta contribute nothing to our department. The Cape of Good Hope sends collections of medicinal herbs and drugs; the remainder of our African possessions nothing. Canada contributes scarcely an article of interest. Nova Scotia, some samples of cod-liver oil, and

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some chemical preparations. The only contribution to the Exhibition from Newfoundland is some cod-liver oil. Of the West India islands, Barbadoes alone sends specimens of fruits, including numerous varieties of capsicum. The Bahamas, Trinidad, and the Bermudas, may be included in the same category.

The Australian Colonies are very poor in specimens of medicinal substances, although, from the peculiar vegetation of this part of the globe, we should have expected a much larger contribution.

Of the foreign States, following the order of arrangement of the Catalogue, Austria sends a number of chemical and pharmaceutical products, some philosophical and chemical apparatus, and surgical instruments from one maker only. The contributions from Belgium are extremely meagre. China sends specimens of camphor, galengal, and some few other things of small interest. Denmark—a small contribution of philosophical apparatus, and a few surgical instruments. Egypt has a long list of medicinal substances indigenous to or cultivated in that country. France, as might be expected, contributes specimens in all the classes into which we have divided our department; but such is the absence of all arrangement of her productions, and so tardy has she been in unpacking her contributions, that everything is as yet in the direst confusion. This precludes us from making any comparison with those of other nations. Berlin sends a considerable number of chemical substances,—some drugs, surgical and obstetrical instruments, and, as might be expected, a large assortment of chemical apparatus and pharmaceuticals, especially those excellent articles of pottery known to chemists as Berlin ware. Cologne affords a few chemical products, some trusses and bandages, and abundance of "Eau de Cologne." Dantzic presents us with nothing. Dusseldorf with a number of chemical products; the substances obtained in the manufacture of salt, soda, and alum; and some philosophical, chemical, and pharmaceutical apparatus. Magdeburg contributes a number of chemical and pharmaceutical substances, and instruments. Bavaria, nothing of interest. Saxony, the same. Wurtemburg, what is termed in the Catalogue "hydroiodinic potash," "pure kali hydroiodinic," and pure kreosote. Frankfort yields some pure kreosote and chinoidine. Hesse presents us with a few chemical substances. Luxemburg and Nassau, nothing. Greece, some native sulphur and carbonate of magnesia. Hamburgh, absolutely nothing. Hanover the same. Holland, some animal charcoal, chrysammic acid, used as a dye, and a delicate chemical balance. Lubeck, Mexico, Mecklenburg, New Granada, Oldenburg, and Persia, nothing. Portugal yields the products of the vine and olive. Madeira, castor-oil seeds, saffron, cochineal, and curcuma, with some spices. Rome sends specimens of the alum, so much in request in bygone days. Russia, some chemical products. Sardinia, chemical and pharmaceutical preparations and apparatus. Spain, the products of some chemical manufactures, drugs, orthopædic apparatus, and artificial teeth. Sweden and Norway, iron and cobalt ores, and chemical balances. Switzerland, a wooden leg, cupping apparatus, and osteotome. Tunis, saffron, a few other drugs, and specimens of the mineral waters of Hamman, Ellen'f, and Korbus. Tuscany, sulphate of quinine, and santonine. And lastly, the United States, drugs, chemicals, surgical instruments; artificial teeth, and dental instruments in abundance.

Such are the results of an analysis of the Catalogue of this vast collection, presenting a general view of the objects of interest to the Medical Profession, and the contributions forwarded by different nations. In our next article we shall descend to particulars, commencing with that which alone is in good order, the British collection.

ST. MARY'S HOSPITAL.

It will be seen, by our report of the proceedings at St. Mary's Hospital last Friday, that the opponents of Dr. Lankester having failed in two direct attempts to get rid of him as a candidate for the office of assistant-physician, have had recourse to a trick for the purpose of inducing the Medical Staff Committee to reconsider his claims. We hope, however, for the sake of the future reputation of St. Mary's Hospital, that the Committee will not stultify themselves by recalling their previous recommendation. That the opposition to Dr. Lankester is one which can always be got up at any of our public Institutions by disappointed candidates, is very evident, from the conduct of Dr. Heale, its prime mover. That a majority was obtained for the amendment of Mr. Kemshead, depended entirely on the fact, that many of the Governors felt that the Medical Staff Committee, as men of honour and principle, must adhere to their first resolution of recommending the same gentlemen in their next, as they had done in their first Report. Although we have no doubt that the members of the Medical Staff Committee have their predilections as well as other members of the Board of Governors, we cannot think that they will dare to yield so far to personal feelings, as to allow the clamour of an interested minority as an excuse for an act of gross injustice. The law of the Hospital is plain and obvious to every unprejudiced man; and if the law of the College of Physicians is opposed to Dr. Lankester, of which we have great doubt, it is for him and them to settle the matter, not the Medical-Staff Committee of St. Mary's Hospital.

Whichever way the election of officers to this Hospital terminates, it cannot fail to be a lesson to all future founders of hospitals. But without at present entering on this subject, we shall be glad to find that the result of the deliberations of the Committee of St. Mary's Hospital will be to prove that they have rather sought the interests of the Institution, than the indulgence of personal feelings, or the interests of personal friends.

THE "EDINBURGH MONTHLY JOURNAL" AND ITS CONDUCTORS.

There is a monthly Journal which, just drawing on a sickly existence, has, during a very few months, passed into many hands. This Journal not long since was taken possession of by a certain number of the Professors of the Edinburgh University, whose names twelve times a-year are blazoned forth as its conductors, and whose lucubrations are with each revolving moon committed to the obscurity of its pages. This Journal has seven conductors, *bona fide* fighting men, and it has also one responsible Editor, behind the shelter of whose straw-like frame the seven real living men may play their ungainly antics, and fancy themselves unseen. A machinery this, gentle reader, sufficient to sink a Journal of infinitely greater weight and metal than our Edinburgh contemporary. In all Commonwealths are one or more men who aspire to the post of dictator; some men are born to rule,—their destiny leads them on, their talents warrant the hope they entertain of reaching what their ambition prompts them to grasp at; but there are also men whose greatness of talent exists but in their own

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imagination, and whose energy and conceit only lead them to engage in contests as unseemly as they are frequent. The Professor of Clinical Surgery in the University of Edinburgh is a man of the latter class; possessing a fair share of abilities, and a certain energy of character, he might have filled his place in the scientific world with credit to himself and benefit to his fellows, but for two failings—overweening conceit, and a burning desire to ride rough-shod over his equals, nay, often over his superiors. "There are no surgeons in the world equal in ability to the Edinburgh surgeons; there is but one pure surgeon in Edinburgh, and know, that I am he!" Such is the cuckoo note of the Regius Professor of Clinical Surgery. These remarks were suggested by the communication of Mr. Syme, and the letter of Mr. Miller, Professor of Surgery in the University of Edinburgh, published in the April number of the *Monthly Journal of Medical Science*, which until now we have not had space to notice. No reference to Professor Miller's letter is contained, be it observed, in the index of the Journal.

Let us recall, for an instant, to the recollection of our readers, some of Mr. Syme's *recent public* quarrels. We limit ourselves to the last year, and recapitulate them in the order of time.

One with ourselves.

One with Professor Lizars.

One with Mr. Gay.

One with a Contemporary, for daring to insert a communication containing views opposed to his own.

One with Professor Miller, for presuming to give publicity to facts, showing that a pet operation of his (Mr. Syme's) was not "all his fancy painted it."

Really the Regius Professor of Clinical Surgery in the University of Edinburgh must be a most amiable Professor, a most agreeable colleague, and a most suitable conductor of a Journal.

Two weekly periodicals and three hospital surgeons have in twelve short months so demeaned themselves, that in the pages of the former he (Mr. Syme) cannot condescend to write, that two of the three latter are unworthy of his further notice; while the third hospital surgeon, his own colleague, a Professor of Surgery in the same school as himself, is treated in a manner neither reflecting credit on the acuteness of his (Mr. Syme's) perception of right and wrong, nor, we must add, on the moral courage of the other conductors of the *Monthly Journal*.

GENERAL CORRESPONDENCE.

DR. RADCLIFFE'S COMMENTARIES.

[To the Editor of the Medical Times.]

SIR,—I believe that much of the perplexing obscurity which hangs over the pathology of epilepsy is to be attributed to the imperfect manner in which the circulation in the neck has been observed, and especially to the confounding together the phenomena which accompany with those which follow the convulsion; and I am glad, therefore, of the opportunity which is given me, by your able correspondent of the 19th ult., of speaking more fully upon this topic.

Before the convulsion, I am not aware that anything remarkable is to be noticed. The neck presents its usual appearance, or is, perhaps, somewhat more pale and sallow; but there is no fulness in the veins, or increased action in the arteries.

During the convulsion, it is widely different. After the fall, the neck swells in a very remarkable manner, the superficial veins stand out like tense cords, and the skin looks as if it were saturated with black blood, while, at the same time, there is not unfrequently a throbbing, pulsating movement, which seems to be seated in the deeper vessels. Now, regarding the manner of its appearance, as well as its peculiar livid character, it would seem probable, that this congestion is chiefly due to the stagnation of the venous current occasioned by that spasmodic fixation or irregular action of the muscles of the chest and abdomen which is cotemporaneous with, if not antecedent to, the violent agitation of the limbs; in other words, it would seem a passive phenomenon due to asphyxia, rather than the expression of an increased determination of arterial blood to the part. Indeed, at the very time the congestion is making most rapid progress, or has attained its height, there is often no pulse at the wrist, or at best one that is extremely feeble; and hence we obtain other evidence in favour of its purely venous character. From the same considerations, it may be likewise argued, that any inordinate vascular throbbing which may be present at this time, that is, during the convulsion, must be referred to the venous and not to the arterial side of the heart; for it may readily be supposed that wave-like pulses are communicated from the right ventricle to the column of blood, which (in consequence of the asphyxial impediment to the passage through the lungs) has accumulated to such a degree as to separate the curtains of the mitral valve, and so make the cavity of the ventricle continuous with the veins which lead to it. We have, it is true, no direct evidence in favour of this opinion, and (considering the difficulty of using a stethescope while the body is shaken to and fro in convulsions, and the improbability of being able to detect the vague signs of auriculo-ventricular patency in the midst of the rubbing sounds which result from the action of the thoracic muscles,) I am afraid we have no right to expect it; but, at the same time, we must not underrate the evidence we have, and think, that because the pulsation does not extend to a vein, which, like the external jugular, is cut off by a special valve, that there is none in the deeper veins, whose cavities are directly continuous with the auricle. I admit it to be possible, that we may sometimes mistake the seat of the movement, so far as to refer to a vein what in reality belongs to a muscle in the neighbourhood, but no more; indeed, there can be no difficulty in distinguishing whether or not it is in the arteries, for the simple reason, that if it were these, we should have similar phenomena in other parts of the same system, which is not the case. Whatever, therefore, may be the nature of any unusual throbbing in the neck during the convulsion, we may be satisfied that it is not arterial in its character; and this is the point which I am at present desirous of establishing.

After the convulsion, with the exception of a few passing startings, the patient lies motionless, with the face turgid, and the hands dusky and cold, and having been in this state for a longer or shorter time the system rallies, and the colour, and heat, and pulse return. The neck also participates in this change, and the carotids recover themselves as the swelling subsides. Generally this reaction is inconsiderable, but occasionally it is greater, and there is danger of coma from the effects upon the brain; but, whatever its degree, one thing is constant, namely, that the convulsion ends when it makes its appearance, and continues absent so long as it remains. Reaction, indeed, constitutes a part of what is called an epileptic seizure; but it is as distinct from the first or convulsive phase, as the febrile period of cholera is from the primary and spasmodic collapse of that complaint. The one, in fact, is antagonistic to the other. I grant, then, that there may be throbbing and violent throbbing in the carotids; but, I maintain that it is a sign of recovery, and not of convulsion.

The knowledge of these changes affords a key to the true pathology of convulsion. We learn from it, indeed, that we must not look to active arterial congestion for the cause; for, if this comes on at all, it is not until the convulsion is over. We learn, also, to doubt, that venous congestion is the cause; for this phenomenon makes its first appearance after the convulsions have begun, and not only so, but continues, and is at its height at the very time they cease. What we do learn is more difficult to say; yet there is something concerning the cause of the venous congestion, and something concerning the convulsion itself. Upon the first point the lesson would seem to be, that we must not stop short at the contraction of a thin muscle in the neck (which, nevertheless, may be a partial cause of local congestion), nor yet at an asphyxial fixation, or comparative fixation, of the muscles of the chest and abdomen, but go beyond to a state of collapse or contraction in the coats of the capillaries, in the lungs, and elsewhere, itself indicated, as I have endeavoured to show, in another place, by the free secretion and discharge of urine at the commencement of the fit; while vascular collapse or contraction is a first fruit of that series of contractile operations which eventually extends to muscular fibres, and causes the proper phenomena of convulsion. In the difficulty which is thus presented to the capillary movement of the blood, we may perhaps find the first link in that chain of causes which produce congestion in the veins, and ultimately the aggravated

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phenomena of asphyxia. The second point upon which we gain information follows out of the first, for, in tracing beyond congestion, we are able to realise a more fundamental idea as a cause of convulsion, namely, collapse of the vessels. But upon this I do not dwell.

I venture an opinion with diffidence which is not in accordance with the views entertained by the Croonian Lecturer of the present year, as with those of Mr. Reynolds, whose operations are known to have given Dr. Marshall Hall very important data in his argument; but I do not this without adducing what I hope will be deemed some reason for so doing. I am, &c.

C. Bland Radcliffe.

4, Henrietta-street, Cavendish-square.

DR. M'WILLIAM'S REMARKS ON THE STATEMENTS OF MR. BAKER REGARDING THE YELLOW-FEVER EPIDEMY IN BRAZIL.

[To the Editor of the Medical Times.]

Sir,—It is by no means my intention to notice every correspondent of yours who may imagine himself competent to discuss the question of the contagion of yellow fever; but the letter from Mr. Thomas Baker, which appeared in your journal of last week, calls for the following remarks.

That the Brazil touched at the Havana is supported by the evidence of the British Consul at Bahia, as well as by that of Dr. John Paterson and Dr. Alexander Paterson, of the same place, all of whom investigated the case after the Brazil's arrival at Bahia, and whose trustworthiness there is no reason to doubt.

To denounce quarantine or any other system as useless, merely because persons are found to transgress its laws, is unfair, illogical, and absurd. There are no greater enemies to the reform of the quarantine laws than those who seek to condemn their present condition, by untenable, because irrational arguments.

The prevalence of yellow fever in any unusual or marked form, either at New Orleans or the Havanna, was by no means necessary to establish the point for which I contended, inasmuch as a person may contract yellow fever in Cuba, or on any of the West India islands, without being to his knowledge near a yellow fever patient, in the same manner that small-pox may be contracted in England without the possibility of tracing anything like a contagious chain of communication.

That yellow fever may be conveyed to persons through the medium of fomites is supported by recorded evidence and by analogy, as in the case of scarlet fever, puerperal fever, typhus, etc. etc. The importation of the fever of Bahia, however, rests not alone upon such grounds.

With regard to Pernambuco, the place was healthy before the Alcyon's arrival. That vessel had yellow fever on board when she arrived, and that disease appeared in the town within a week afterwards,—rather a striking fact. Although it was not shown that Dr. Paton was near the Alcyon or her crew, we are not on that account alone to reject the view of the importation of the disease by that vessel. It is quite clear that Dr. Paton became infected from some source, but not until after the arrival of the infected Alcyon. It is not always that a contagious chain can be proved in the progress of the most notoriously contagious diseases. After Dr. Paton, his apothecary, two out of three patients in the hospital, Dr. May, his housekeeper, and Dr. May's servants, were successively attacked, and this, too, in the airiest and cleanest part of the town.

The case of Mons. Lassere is a positive instance of contagious propagation; and so is that of Dr. Domingos de Souzu's wagoner, quite sufficient to convince any unprejudiced mind. If the disease was contagious in these cases, *à fortiori* it was contagious in others.

The occurrence of one case only in Rio Grande do Sul is presumed to be far more favourable to contagion than against it. We are not yet in possession of the facts; but, on the supposition that the disease depended upon a general cause, will any man venture to assert, that out of a population of some hundred thousands, a single individual only was susceptible to its influence? The circumstance of there being one case only is wholly inexplicable if we adopt an endemial cause. It is perfectly explicable on the ground of foreign introduction.

It is quite right to state, that at Monte Video there were cases of yellow fever on board the Tweed and Cormorant men of war in the harbour; but it is utterly wrong to infer that either vessel contracted the disease at Monte Video, for that place, as I said, enforced quarantine, and escaped throughout. The Tweed was infected at Bahia, and the Cormorant at Rio de Janeiro. The case of the steamer Prony, mentioned by your Correspondent, I have not heard of.

The hypothesis of Dr. Lallemand so eagerly adopted by your correspondent, that the origin of yellow fever at Rio de Janeiro, is to be ascribed to the absence of thunderstorms, &c.; common in former years, if correct, would go to prove, that in Brazil, south of the line (a region of peace) yellow fever should nearly always prevail, and that north of the equator, including the West Indies (compared with the south side or region of storms) yellow fever ought seldom or never to be present. We know that the very reverse is the case.

It is a gross injustice to Dr. Lallemand to insinuate that his answers in reply to queries were favourable to contagion, merely because he imagined those queries emanated from the British Cabinet. I have not the honour of Dr. Lallemand's acquaintance; but, from what I have heard of him from my friends and relations, I feel assured he is not the man to be influenced in his judgment by a leading question from any Cabinet whatever.

That the fever should be contagious at Petropolis (2000 or 3000 feet above the sea) or even lower down, is what every one, whether contagionist or non-contagionist ought to have known. Some notoriously contagious diseases require a certain temperature to maintain their contagious properties. Elevation not only destroys the contagious powers of yellow fever; but, if a sufficient height be attained, it entirely annihilates the disease, as shown by Humboldt, in Mexico, more than half a century back.

I am not sure that I ought to condescend to notice the charge of garbling the evidence to which I had access; but I may mention, that I have never seen any document from Dr. Sarmento; that the bilious fever at Rio Grande do Sul, which I have omitted to notice, was said by the consul to have been of a "mild nature;" that the passage in Dr. Lee's report, to the effect "that many who lived out of the city and took every precaution, and some even went so far as to refuse to visit or receive visiters," etc., which I am accused of having intentionally passed over, is surely amply supplied by the quotation from Dr. Pennel's report on the same subject, the substance of which appears in my papers in the following words:—"Dr. Croker Pennel states, that there were many cases where no source of infection could be traced."

The concluding sentence, containing the pathetic denunciation of quarantine, the quotation from Scripture, etc., is, doubtless, very affecting, but I am at a loss to see how it helps us in the adjustment of the question at issue. I am, &c.

14, Trinity-square. J. O. M'William.

THE IRISH MEDICAL CHARITIES AND THE IRISH APOTHECARIES.

[To the Editor of the Medical Times.]

Sir,—In the statement of the foregoing case contained in the leading article of the last number of your journal, you have advanced certain observations relative to the history, status, and education of the Irish apothecary, which I beg to refer to, and to set you and the public right upon. You state that "you believe the late Dr. Cheyne was one of the first Dublin physicians who introduced the practice of consulting with apothecaries." The truth is, that physicians have been at all times in the habit of doing so here, and that the innovation effected by Dr. Cheyne, and to which you refer, regarded the surgeons, who, up to his time, were not met by the physicians if they happened to be called over them in medical cases. You then imply, that it was in consequence of this newly-acquired position that "the Company of the Apothecaries' had added to its curriculum of education lectures upon Anatomy and Physiology, practice of Physic, Surgery, etc., as well as those upon Pharmacy, Chemistry, and Botany, which its pupils were originally compelled to attend," etc. Now, with regard to the order of education, the case of the Irish apothecary stands thus: a bye-law of the Company, passed shortly after its incorporation, upwards of half a century ago, rendered the subject of medicine a necessary part of the examination for candidates seeking its "licence," and a professorship of the practice of physic constituted part of the foundation of the original Hall-school; that it was subsequently, in consequence of the College of Surgeons refusing to recognise the certificates granted by the Professors of the Hall, the Company established the school in St. Cecilia-street, and added chairs of Anatomy, Surgery, Midwifery, and Medical Jurisprudence, and required candidates to attend those additional branches of education; so that the course of Instruction laid down for the last fourteen years for the Irish apothecary's licence, includes every department of medical science. You further state, that in adopting this system of education, "you fear the legitim-

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ate objects of the Company, the improvement of pharmacy and its collateral and contingent branches, has been neglected." Now, I am at a loss to imagine how such a charge can lie against the Company, after having instituted professors for the express purpose of teaching these branches, and awarding, as it does, a prize annually for proficiency in the most important of all those relative subjects, "organic analysis;" but in the writer's opinion, the exclusive study of any of its branches is not the best means of advancing medical science, and the desire to separate pharmacy from medicine, at present so generally expressed, will, if carried out, prove equally injurious to the progress of both, and especially to medicine itself, which, regarded as the most important of practical arts, must mainly depend for its efficacy upon the appliances it makes use of. The Irish student is not, however, without ample means of instruction upon all special subjects connected with his profession; he is free to the Botanic Gardens, both of Trinity College and the Royal Dublin Society, and possesses every opportunity for acquiring a knowledge of practical pharmacy and chemistry during his apprenticeship, and his attendance upon the schools, as well as in the splendid laboratory of the Hall. The Irish Hall can moreover boast of distinguished names in chemistry, pharmacy, and botany, as Sir Robert Kane, Donovan, Scanlan, Aldridge! In reference to your next statement, "that there are now but comparatively few pure apothecaries in Ireland, and that other practitioners inveigh bitterly against the Apothecary-general-practitioner," I beg to observe that until lately the instance of a pure apothecary, in the sense you make use of the term, was unknown among us; that apothecaries have always been *ipso facto* general practitioners; that not many years ago more than a dozen apothecaries, possessing no other medical title, drove in their "carriages and pairs," to visit their patients in this metropolis; that the formation of establishments, professedly for selling and compounding medicine only, as well as for the disposal of all sorts of quack medicines and haberdashery, has been a late innovation in Dublin; and that these "medical halls," and a certain self-created class of "general practitioners," who are imposing upon the credulity of the public by the most shameless puffing, are the modern encroachments upon the established usages of the Medical Profession, formerly so respectable, in Ireland.

Lastly, with respect to your closing advice to apothecaries, "that instead of opposing the Medical Charities Bill because it will not acknowledge them as medical men, to endeavour to get a clause introduced by which each hospital will have its medicines properly compounded by a pure apothecary," I candidly acquaint you that they will do no such thing, and I feel assured that you, who have always shown yourself to be the strenuous and consistent advocate of the rights of the General Practitioner, now that you are informed of the true character of the claims of the Irish apothecary, would be the last person to advise such a course. In England it has been decided, that the license of the College of Surgeons is not a sufficient or legal qualification to entitle a person to act as "medical officer" under the Poor-law, without a diploma from the College of Physicians, or a certificate "to practise as an apothecary," from the Society of Apothecaries of London; and, as the appointments under the Medical Charities Bill will be perfectly analogous, the Irish apothecaries will not be satisfied unless the same two-fold qualifications are clearly specified in it.

I am, &c. CHARLES HENRY LEET,
Secretary to the Court of Examiners,
Apothecaries' Hall, Dublin.

IRISH MEDICAL DEGREES.

[To the Editor of the Medical Times.]

SIR,—Permit me, on the part of a numerous class of Irish students, amounting to nearly 700 or 800, of which number at least 600 annually attend lectures, &c., in Dublin alone—to tender you our thanks and gratitude for your notice of the "obstacles" existing in our native University to the obtaining of medical degrees. The subject has for years been over and over again discussed, but no kind friend has ever come forward to say a good word in our behalf in that respect; the fact is, that we, one and all, are obliged to go elsewhere to obtain that which our own University shuts us out from. Their excuse is, that they have enough without us, and are not over anxious about medical degrees; and that, in fact, "Trinity College" is more for theological education than anything else. This may be all very well for a certain class; but are medical students to be altogether thrown over board to suit the ideas of the heads of the University? Perhaps they are rich enough, (so it is said at all events,) without us. I think, however, that some few dozen degrees annually conferred on this said class of "six hundred," might yet benefit the coffers as well as the candidates, instead of, as at present, "two" graduating on their greatest commencement-day in the year, namely, Shrove Tuesday. This fact alone speaks for itself: only two took the M.B. this year—one M.D., another M.D. *honoris causa;* in fact, nearly all our eminent physicians in Dublin are honorary M.D.'s of T.C.D., nearly all of whom are Scotch graduates, proving, that notwithstanding these men have not been educated in T.C.D., nevertheless, they have proved themselves deserving of a degree in it; thus, it shows that the public make no distinction; the sick man, whether he consults the Glasgow M.D., or the T.C.D., M.B., he consults the best physician, not the best mathematician, or the best botanist, or the best chemist. I might add logician, rhetorician, etc., as required by Trinity College; but Dr. Graves, in his "Clinical Medicine," very properly says, "What has the physician at the bedside of a fever-patient to do with such things? Have such means exalted such names as Stokes, Corrigan, Churchill, Neligan, Sir Robert Kane, Bellingham, O'Ferrall, and a host of others, who never entered the doors of T.C.D?" Sir, we want an Act of Parliament to enable the University to grant the degree of M.D. at once, without any preliminary A.B., M.B., four or five years more, and so on, besides launching out twenty or thirty guineas for every step we go, year after year; in fact, to obtain the degree of M.D. T.C.D., one must pay some hundreds of pounds, and spend eight or nine years in the University, and of Dublin surgeons just the same. But I would say, if a man is to be a medical man, surely let him be an M.D. at once. What an absurdity is the M.B. at all. In our new colleges, I see the degree of M.D. is very properly laid down as the medical degree. I would it were the case in the Dublin University. I am, Sir, &c. A STUDENT.
Dublin.

THE GRADUATES' COMMITTEE.

[To the Editor of the Medical Times.]

SIR,—Permit me, as a Graduate of the University of London, to ask your attention to another scene in the farce which the Graduates' Committee have got up for their fellow-graduates. These gentlemen urged the Senate to have a public day on which they might exhibit in caps and gowns; and the Senate good-naturedly yielding to this piece of vanity, have been sadly put about.

Last year they had to gather up their traps and move to King's College; this year they have to seek a resting-place in University College. Can anything, Sir, be more absurd and ridiculous than to see a flock of hoary-headed senators running from place to place seeking the accommodation which is absolutely required for the University, and which must have been granted by the Government long since, if the necessity had been properly represented by the Senate and Graduates.

Far better would it have been if the efforts of the Graduates' Committee had been directed towards obtaining a local habitation, as well as a name for the University, instead of rushing after that "will-o'-the-wisp" and airy-nothingness convocation which, in the present state of matters, could exist but for the glorification of agitators, and for sowing dissensions among the Graduates themselves, the majority of whom feel deeply grateful to you for your constant attention to their interests; and they will have still stronger grounds for gratitude, if you can help them to obtain this most desirable object—a real University; for at present much is left to imagination. I am, &c. FORTUNATUS.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

DR. MURPHY, President, in the Chair.

ANEURISM OF THE AORTA.

Mr. Latty detailed the following case of Aneurism of the Aorta:—A military officer, aged 41, after twenty years' service in India, returned to England in October last, having, during the previous year, had repeated attacks of spleen, and been reduced to a state of great debility. On coming under his (Mr. Latty's) care, in the beginning of February, he was in the following condition:—He was jaundiced, his lips bloodless; he had lost flesh, and complained of great debility; he had lost his voice, being able to speak in a whisper

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only; he had a hoarse, croupy cough, with scanty expectoration, which was glairy, more or less rusty or streaked with blood, and intermixed with sputa, having all the appearance of pus. When he slept through the night, he always expectorated, in the morning, one or two sputa of pure blood of a dark colour, which had evidently oozed out during the night. His pulse was quick and feeble, but quite regular; tongue foul, appetite bad, and urine scanty, very high coloured, and depositing a copious pink sediment. He had no fever. The right lung exhibited signs of being in a healthy condition. The left side of the chest afforded, upon percussion, a very clear sound as far as the nipple, below which there was a remarkable dulness. The vesicular murmur was very distinct in the upper part also, but all over the lower region, where the dulness existed, it was scarcely audible, and was accompanied by a slight crepitant râle. The heart's impulse was feeble, its action regular, and it emitted no abnormal sound. He had no difficulty in his breathing, either in walking or lying down. By appropriate remedies, the digestive functions resumed their healthy condition, the lips became less anæmic, but no alteration whatever was produced in the cough or expectoration; he was gaining flesh very sensibly, and his strength had increased very much, when, on the 25th of April, he suddenly expectorated a large quantity of florid blood; the hæmorrhage ceased after a few minutes, and the expectoration resumed its usual appearance; but on the first of May it returned to a frightful extent, and soon terminated his existence. On examining the body after death the lungs were found perfectly healthy, except the lower lobe of the left, which was flattened, compressed, and dense in its structure, somewhat resembling its condition in the first stage of pneumonia, except that air could be forced into it. The heart was slightly hypertrophied, flabby, and pale. The aorta, immediately from its origin, was dilated into a large aneurismal sac, which occupied the whole of the arch immediately in front of the trachea and was firmly adherent to it; a pouch, about the size of a large pigeon's egg, sprung from the upper part of the sac; the arteria innominata arose from its base on the right side, and its upper portion was filled with firm coagula; there were two slight deposits of coagulum in the large sac; the lining membrane of the trachea, through its whole extent, was of an intensely red colour; that portion against which the aneurismal pouch rested was bulged out, giving it the appearance of a vascular tumour, in consequence of the cartilaginous rings of the trachea having been absorbed, and resistance to the pressure of the aneurism thereby removed; four round, smooth openings, capable of admitting a common probe, existed in it. The pouch projecting from the aneurismal sac having been, in a great measure, removed from the current of the circulation, allowed the deposit of the coagulum, which had the effect of hindering the rapid effusion of blood that would otherwise have taken place when the process of absorption had made an opening into the larynx, and which, instead, produced a constant oozing of blood, thus very closely imitating ulceration of the larynx, from its continuance to such a slight extent, for so many months, without any more extensive hæmorrhage till within a few days of death. The record of such cases may assist in forming a diagnosis in this very obscure disease.

FALLACIES IN MEDICINE, AND HOMŒOPATHY.

Dr. Routh read a paper "On some Fallacies in the Modern Practice of Medicine, more especially Homœopathy, and in Estimating the Results of Practice by Imperfect Statistical Inquiry." He would not enter on the subject of the theory of Homœopathy, but simply on that of the practice, *i. e.*, the argument of experience. To prove this, homœopaths first disfigured the allopathic practice, and then advanced on their side statistical tables well calculated to deceive. In defence of rational practice, he adduced chlorosis as an example, in which the blood globules and the iron contained in them were deficient. In a healthy person the iron varied from 33 to 45 grains, an appreciable quantity, which infinitesimal doses would not congregate in centuries. In the collection of these data, homœopaths overlooked three considerations: 1st. Differences of locality, whereby type, variety, and amenableness to treatment were greatly affected, illustrating this point by his experience on visiting the continental hospitals. 2ndly. The constitutional or prevailing diathesis of diseases in the same places might vary. The present type of British disease was adynamic; twenty years ago it was dynamic; hence many cases of homœopathic success now. 3rdly. There existed at present a peculiar mental epidemic as it were, which often tended to effect cures; a tendency to perversion so powerful as, by its influence on the mind, to assist recovery materially. To this cause he ascribed several instances of cures, and astounding results which he had obtained by coloured water. Here was one secret in homœopathic cures. That such was really the case was proved by the failure of homœopathy in the treatment of animals. The real cases of cure were only those in which, if left to themselves, the animal would have recovered, or where a most severe dietetic regimen was also conjoined. These alleged cures also were anonymous, or came second-hand, reported by non-medical persons. The alleged cures of fancy and glanders in horses, extending as they did over two to twenty-eight months' treatment, he believed were either not genuine, or chronic cases where the disease had worn itself out. The argument from children was only negative. This class of patients were most of all susceptible to dietetic regimen. Dr. Routh then entered largely on the subject of the general mortality in hospitals. The homœopaths gave a result of 4 to 6 per cent. The allopaths, sometimes as low as 2 per cent., gave a result usually of 7 to 9 per cent. This he illustrated by results from the different hospitals in Europe. Amongst the causes of this disparity he had traced the following:—

1st. Homœopaths excluded in their results the cases brought in moribund. Allopaths did not. He showed, however, a table of the mortality from fever in Belfast from Dr. Mateer. This exclusion, in an average of eighteen years, diminished the mortality 22 per cent., and in 1821, 127 per cent. If it were so for one disease, what would it be for all?

2. Were the cases admitted as severe? Owing to the common prejudice against homœopathy, few severe cases came to them. They went to the allopathic hospitals. In one case he had seen one patient admitted for very slight headache; besides cases of intoxication, vast numbers of hysterical patients were included. This, by increasing the number of non-fatal diseases necessarily diminished the per centage of mortality.

3. The numbers used were small; and he showed, from the Irish tables of hospital mortality, that no returns could be depended upon unless above 10,000. It was said 100 well-selected cases gave good results. He believed, however, from experience, they were only in the direction of truth. Another 100 cases equally well selected might give a direct negative. The best homœopathic returns were those obtained from small numbers.

4. Another source of fallacy was the different amount of comfort enjoyed by hospital patients. From personal observation he could state, that Fleischmann's Hospital was unsurpassed in this respect by any other hospital he had seen. The students were either none or few in number, and the patients were not tormented by repeated manipulations.

5. They were both younger and of a better class. Out of 320 patients seen in that hospital by Dr. Balfour, 280 were under 40, only 22 above. In the published account for Linz, in 1844, out of 555 patients, 478 were under 40. They were of a better class, not the very poor and weakliest. This he had personally remarked, so had also a Fellow of this Society, Dr. Glück. The effect of youth in arresting the mortality of disease generally was well-exemplified in the Army returns, where, out of some 400,000 admissions, the mortality was only 1 in 56. In the Navy, out of 300,000, 1 in 101.

He then alluded to the homœopathic returns from pneumonia, which had made so many perverts among allopaths. Homœopaths were fond of quoting Grisolle's 304 cases, with a mortality of 13 per cent. Dr. Sampson had collected 209 from Briquet, Grisolle, the Edinburgh Infirmary, and Skoda, giving a mortality of 28 per cent. In opposition, Fleischmann's cases were quoted—300, with a mortality of 6 per cent.; or from a larger collection, including the results of these other hospitals, 970 cases, with a mortality of 43 or 4 per cent. Many of the reasons above given would explain this; some required, however, particular mention.

1st. Pneumonia in Austria is seldom complicated: usually simple idiopathic. This he attributed to the extreme rarity of Bright's disease of the kidney in that country; and in many returns the complicated were usually classed under the head of the fatal complications, and thus escaped notice. The complicated were only distinguished from the idiopathic in the Linz returns. From 1843-6 there were 93 cases of idiopathic; only 8 of complicated: proportion, 8 per cent. In Dr. Tessier's 41 cases, the proportion was 14·6 per cent. In 140 he had collected occurring in the practice of Drs. Taylor, Walshe, and Peacock, 55 per cent. were complicated. This would explain the difference of mortality. The cases of the Glasgow Infirmary, so often quoted by homœopaths, from 1843-45, were mostly all complicated, chiefly typhoid, and many brought in moribund.

2nd. Age was most important in pneumonia. The mortality was high above 40; low below it, excluding children. The army returns gave the mortality out of 12,000 cases as 1 in 29, sometimes as low as 1 in 45; the navy, 1 in 26; sometimes as low as 1 in 59, out of some 3000 cases. The best homœopathic return was 1 in 22; Fleischmann's, 1 in 16, and these were simple cases; the others mixed.

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3rd. Sex was another most important feature. The distinction was not made by homœopaths. There were 75 males usually seized by pneumonia to 25 females; but the per centage of mortality among females was more than double. Indeed, by comparison in the Registrar-General's Returns for 1843 and 1844, calculating from 8000 fatal cases, the different numbers of persons living at each age, the per centage mortality to seizure from pneumonia, excluding children, was 100 males to 211 females. In Dr. Tessier's 41 cases, 8 only were females; and if we took Fleischmann's 19 cases, recorded by Dr. Belfour, as a sample of all, the results from the preponderance of males would be 4 per cent. too favourable.

Dr. Routh then gave an analysis of Tessier's 41 cases. There were 3 deaths; the cases were, 4 only of double pneumonia, 1 fatal; 30 of simple idiopathic single, 1 fatal; 1 secondary and fatal; 5 complicated. Of these 38 successful, 1 died, before leaving the hospital, of phthisis; and another, of erysipelas: giving thus a mortality of 1 in 8. In the 38 besides, 6 had been treated also allopathically, and should be excluded; leaving 35 cases, 5 deaths, or 1 in 7. The cases treated allopathically had a shorter duration of treatment, and left the hospital sooner after convalescence. For so many cases of idiopathic, and with so many males, this was high. On the other hand, the analysis of 141 cases in the practice of Drs. Taylor, Walshe, and Peacock, gave 48 deaths: mortality, 1 in 3; but in this number (141) there were 33 cases of idiopathic single pneumonia, 14 idiopathic double, 2 deaths, among males: mortality, 1 in 23; among the females, 5 of idiopathic single, none of double pneumonia: general mortality for idiopathic, 1 in 25. There were 9 cases of simple pleuro-pneumonia among males, and no deaths; giving a general mortality of 4 per cent. only. The remaining were complicated: 52 cases, 30 deaths among males, or 1 in 1·7; 26 cases, 12 deaths, among females; mortality, 1 in 2: total, 78 cases, 42 deaths, or 1 in 1·8. In 127 cases the age was stated:—61 males under 30, 35 above; 17 females under 30, 14 above; or 78 under 30, 49 above. After some remarks on the inert treatment observed in such cases by the Viennese allopaths, Dr. Routh concluded by giving examples where, under divers treatment, the mortality with Laennec, Wolf, Bouillaud, Louis, Boug, Husson, had been occasionally very low; adducing also the eleven of Grisolle, cured by emollients only. Declining, however, to deduce conclusions from small numbers, he finished by stating, that idiopathic simple pneumonia under 40 was a very benignant disease; instancing the cures effected by drinking cold water only in many of these cases; as recorded by the Belgian Commission, Drs. Moreta and Compagnani, in Italy. The best treatment in these cases appeared, from the researches of Dr. Dietl, of Vienna, the allopathic physician to the Wieden Hospital, to be simply the dietetic. Dr. Dietl (he quoted from Dr. Roth) had treated 85 cases of pneumonia by blood-letting, with a mortality of 20·4 per cent.; 106 by tartar emetic, mortality 20·7 per cent.; and 189 by simple and strict dietetic regimen, mortality only 4·12 per cent. The bleeding often made the pneumonia complicated. He concluded by stating, that the homœopathic returns should be more carefully analysed before credit was given them; he admitted the excellence of their dietetic regimen, but attributed their success wholly to the powers of nature, and their selection of cases; and added, that perhaps, even amongst ourselves, some good might result by trusting more to nature and diet, where this could be with safety done.

In the discussion that followed, Mr. Clarke, Dr. Daniels, Dr. Lankester, and others took part. Some objections were raised against the reading of the paper, as it was supposed to be in some respect in favour of Homœopathy, but such was not apparently the general impression, and Dr. Routh disclaimed having any such object in view.

SURGICAL SOCIETY OF IRELAND.

Dr. Jagoe in the Chair.

Dr. Bellingham exhibited an amputated leg, in which the ankle-joint had been opened by the application of a plaister, most probably arsenic. A quack had applied it, and a large slough had formed in consequence, and so opened the joint. The suppuration and hectic which ensued obliged the patient to have it removed.

Dr. Barron exhibited a cast, showing the ravages which cancer in the neck causes. A cancer of the lip had been removed about one year previous to the appearance of a small tumour under the jaw. This last increased, and so went on to involve the whole neck, and cause the horrible disease exhibited. It was interesting to observe that one side of the neck presented a good example of fungus hæmatodes.

Dr. Fleming gave some details of a case of aneurism, in the middle third of the thigh, in which more than ordinary difficulty was experienced in effecting a cure by pressure. The process occupied some weeks, and when cure began to take place, it was curious that it went on very rapidly. The case was watched closely by a medical gentleman from *Edinburgh*, who was in Dublin at the time.

Dr. Walsh detailed a case of the hæmorrhagic diathesis, in a child of two years old. It had been seized with convulsions, for which the gums were lanced. This was followed by bleeding, which went on in spite of every means used to stop it, and the child ultimately sank about the fourth day.

Vice-President of the College in the Chair.

Dr. Bagot detailed a case of gout in the stomach, of a very severe character. The gentleman had suffered from the disease before in the extremities. On this occasion it had attacked the knee in the first instance. It suddenly left this part, and attacked the stomach. The symptoms were those of extreme collapse, during which Dr. Bagot used, and with the best effects, a combination of chloroform and ether. As reaction came on the stomach got very irritable, and for this calomel was exhibited in small and repeated doses, and with good effect. At the end of thirty-six hours the knee became again affected, and the patient finally did well. The case was considered one of much importance, and remarkable, as being probably the first of the sort in which chloroform was used.

Dr. H. Kennedy read a paper on the difficulties attendant on the diagnosis of diseases of the stomach. Cases were given where no symptoms of disease of this organ existed till within a few days of death, and yet where the most extensive organic malignant disease was found after death; and others again where the patient had suffered for months from symptoms referred to the stomach, and yet on examination no morbid lesion could be detected. The author also gave a remarkable case where black vomit was present, and where also a tumour was felt by Sir H. Marsh and Dr. M'Donnell, and yet where the patient recovered. He attributed the tumour to a spastic action of the muscular fibres, close to the pylorus, and its disappearance to their relaxation; and he showed that black vomit was by no means uncommon in acute diseases, where no organic disease of the mucous membrane existed. From these several facts, then, he drew the conclusion that much caution was still requisite in arriving at a correct diagnosis in the various affections of this organ, as we might be deceived by the presence of symptoms which most were inclined to look upon as absolutely diagnostic of the presence of organic disease.

CONVENTION OF POOR-LAW MEDICAL OFFICERS.

A third audit of the Treasurer's account necessarily leads to a review of the past exertions of the Committee, and calls for a notice of the position and prospects of the Convention.

The energy and co-operation which characterised the early efforts of the Association have, in a measure, flagged under the discouragement of hope deferred.

The Committee for some time past have felt, that the period was approaching for them for a while to suspend their meetings, if not to resign their trust to the great body of the Union surgeons, by whom, in 1847, they were authorised to act. Though the labours of the Committee have been nobly seconded by a few of the Union surgeons in the provinces, they have not been able to realise anything tangible, chiefly because they have been only partially supported from without, and have wanted the steady perseverance and united personal exertion of the many, which alone can conquer such diffused and deep-rooted evils as the Convention was formed to overcome. The contributions to the funds have been few, if we except the sums subscribed in 1849, when an impulse was given at the meeting over which Lord Ashley presided.

On the 21st April the treasurer wrote, "we have over expended to the amount of 7*l.* 11s. 1d.," and added, with his habitual consideration and liberality, "this sum I shall be happy, if I may be allowed, to present to the Committee." The Committee gratefully record this generous offer, but they feel that it cannot be the will of their constituents that it be accepted.

In looking over the list of the names of those who have contributed to the funds of the Association, it is matter for surprise and humiliation to see that not more than about 400 out of a Pro-

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fession of 15,000, and only 404 out of the 3,000 union surgeons, have come forward in aid of a cause in which the Profession generally, and the Union Medical Staff more especially, are concerned.

Whatever feeling of timidity, apathy, or hopelessness may have existed amongst the majority of the Profession, the Committee, on recurring to the small list of free-hearted contributors to their finances, and of manly coadjutors in their operations, cannot but congratulate those gentlemen on the efforts which they have made to overcome a system so oppressive and unjust, as that through which medical relief is administered under the domination of the Guardians of the Poor-law Board. They entertain unshaken confidence in the goodness of their cause, and a full conviction that judicious and well-supported efforts will yet obtain for the Union Surgeons the redress to which they are so eminently entitled. At the same time they feel it their duty to urge the Poor-law Medical Officers and the Profession in general to consider how much the redress which is sought, and for which so large a sacrifice of money, exertion, and time, has been made by some of their brethren, is within their voluntary grasp; but that it can never be hoped for so long as the degrading and ill-paid appointments are not merely accepted, but made the objects of eager competition.

During the past three years, frequent attempts have been made to call the attention of the Government, and also of the public, to the subject. Earnest applications have been addressed in writing and by deputation, to parties of influence in the Colleges and the Hall, to the Poor-law Board, to the Home Secretary, and to the First Lord of the Treasury. Petitions have been again and again addressed to the House of Commons; the public has been appealed to by advertisements, by addresses, and by reports, which have been seconded by leading articles in many of the most influential journals. These varied efforts cannot have failed to prepare the country for amended legislation; and the speeches of Lord Ashley in February, 1849, and of General Sir de Lacy Evans and Dr. J. Arthur Wilson, at the recent interview with Lord John Russell, are proofs of the cordial and stirring sympathy already awakened.

Under the present political aspect, the Committee have thought right to suspend their meetings until some special circumstances may determine the time for resuming their exertions. They have, consequently, discontinued the expenses which secured the services of their Assistant Secretary. Through the liberal consideration of the Council of the National Institute of Medicine, who all along have placed at the disposal of the Committee their eligible rooms in Hanover-square, they have been saved a considerable outlay for offices. This courteous assistance has been specially noticed by a vote of thanks from the Committee, which they have pleasure in thus publicly recording. The cordial thanks of the Committee have likewise been voted to their excellent treasurer, Thomas Martin, Esq., whose numerous engagements have obliged him to resign the office.

Contributions in aid of past and future expenses for printing, advertisements, etc., (charges inseparable from the operations of the Committee,) are solicited, and may be sent by Post-office order to Mr. Lord, who, on the resignation of Mr. Martin, obligingly consented to unite the Treasurer's duties with those of the Honorary Secretary.

The Treasurer's Report of Receipts and Disbursements, from the 19th Feb., 1849, to the 17th April, 1851.

RECEIPTS.	£	s.	d.
Amount of Subscriptions received from 404 Contributors	247	14	3
Balance due to the Treasurer	7	11	1
	£255	5	4

DISBURSEMENTS.	£	s.	d.
Balance due to the Treasurer, as per last account ..	22	17	9
Printing	63	0	11
Stationery	7	15	11
Postages	28	18	0
Advertisements	47	17	6
Room, and incidental expenses for Deputations ..	3	11	0
Messrs. Fuller and Saltwell's fee	1	1	0
Salary of the Assistant Secretary	65	0	0
Miscellaneous expenses	15	3	3
	£255	5	4

We, the undersigned, having examined the foregoing accounts with the vouchers, do find the same correct; and that the balance due to the Treasurer is 7*l.* 11*s.* 1*d.*

JOHN PROPERT, GEORGE JAMES SQUIBB, } Auditors.

Dated 17th April, 1851.

By order of the Committee,
THOMAS HODGKIN, Chairman.
CHARLES F. JAMES LORD, Hon. Sec.

MEDICAL NEWS.

UNIVERSITY OF OXFORD.—Dr. Lee's reader in anatomy purposes to commence his next course of lectures on the 12th inst. Gentlemen who attend with a view to obtain a certificate of attendance, or to take up physiology in the School of Natural Science, should inform the reader after the first lecture. The Reader in Experimental Philosophy commenced a course of lectures on electricity at the Clarendon on the 7th inst. They will be continued three times a week, Monday, Wednesday, and Friday, until completed.

UNIVERSITY OF CAMBRIDGE.—The examination of candidates for the license *ad practicandum in medicinâ*, and for the degree of M.B., will commence on Monday, May 26, at ten a.m., in the schools under the public library. Those gentlemen who intend to offer themselves for examination should make known their intention to the Regius Professor of Physic on or before Monday, the 19th inst.

LONDON UNIVERSITY COLLEGE.—The distribution of prizes for the Faculty of Medicine at this Institution took place on Saturday afternoon in the theatre of the College. The prizes awarded were gold and silver medals and certificates of honour. At three o'clock the different Professors of the College, arrayed in their gowns, entered and took their places at a table in the centre of the theatre. Mr. Henry Crabb Robinson presided as Chairman, and was supported by Baron Goldsmid, and other supporters of the Institution.

The Chairman explained, in a few words, that they had been disappointed of the presence of Sir James Graham, who was to have presided.

Professor Graham, Dean of the Faculty of Medicine, read the Report of the Institution, stating that 196 students had been enrolled during the term, and expressing great satisfaction at the assiduity and good conduct of the students generally. The library had been enlarged both with medical and general works, and the Flaxman Gallery completed.

The distribution of prizes then commenced. The following were the names of the principal prizemen, with the different departments in which they proved themselves the chief:—

Chemistry.—Gold medal, T. Z. Lawrence.

Botany (Summer, 1850).—Gold medal, J. W. de Tunzelman.

Pathological Anatomy.—Gold medal, Henry Thompson.

Anatomy and Physiology.—Gold medal, William Henry Flower.

Anatomy.—Gold medal, Joseph S. Gamgee. And in the senior class, silver medal, W. B. Ramsbotham.

Comparative Anatomy.—Gold medal, Joseph Lister.

Medical Jurisprudence.—Prize, S. W. Sibley.

Medicine.—Gold medal, S. W. Sibley.

Materia Medica.—Gold medal, William Roberts.

Surgery.—Gold medal, J. S. Gamgee.

Midwifery (Summer, 1850).—Gold medal, T. G. Fitzgerald.

Dental Surgery.—Silver medal, John Caldcleugh.

Fellowes Clinical Medals.—Summer Term, 1850—Gold, F. G. Fitzgerald; silver, R. Bowman. Winter Term, 1851—Gold medal, William George Bacot.

The Chairman then addressed the students, and expressed his unqualified satisfaction at the Report which had been read. He said, there was a trite saying in the legal Profession, that testimonies were to be weighed not counted to prove their value, which he thought might be applied in the present case. For they constituted but a small item among the Institutions of this land, and if estimated by number would be ashamed to lift up their heads; but, if by quality, not quantity, they need not deprecate comparison with any other learned body. He then explained the reasons that led to the foundation of the Institution, which was

for the establishment of reformed principles of medical study independent of the State. It must be a source of gratification to the founders if other Institutions, acting on these principles, even went beyond them. He then addressed the two classes of successful and unsuccessful candidates.

The visitors then inspected the Flaxman Gallery and the library, which were thrown open on the occasion. On the death of Mr. Flaxman the works in his studio became the property of Miss Maria Denman, who regarding herself as entrusted with these precious relics for the public, presented them as a free gift to the College.

University of London.—The Annual General Meeting of the Graduates of the University of London was held on Tuesday evening, at the Freemasons' Tavern. Dr. Gull, of Guy's Hospital, took the chair soon after seven o'clock. The Committee reported, that the more objectionable part of certain regulations proposed to be adopted by the Senate, and strenuously remonstrated against by the graduates, (according to which the University of London would have conferred some of its degrees on the faith of examinations conducted by other universities,) had been withdrawn. They further reported, that a declaration of the desire of the graduates to be incorporated in the University, signed by an overwhelming majority of the body, including almost all the holders of high degrees and honours, had been laid before the Senate, and that the Senate had considered it at two several meetings, but had not as yet agreed to any resolution on the subject. The Committee then, in tendering their resignations, submitted a scheme for the future election of Committees by ballot. By this scheme the whole Committee would retire annually, and the names of all candidates nominated in due time by four graduates, would be transmitted to all the graduates, together with the names of such retiring committeemen as were willing to be re-elected. Dr. Ayres and Mr. Bower, B.A., disclaiming all hostility to the Committee, proposed amendments, to the effect, that one-third only of the Committee should retire annually, and that that third should not be re-eligible. It was argued, on the other side, that this course would endanger the frequent exclusion of very efficient officers, and that, inasmuch as the votes for each candidate would be reckoned on the ballot, so that there would be no necessity for accepting or rejecting the retiring committee-men in a mass, ample opportunity was afforded for making changes desired by any considerable number of the graduates. The amendments were negatived by large majorities, after an animated but friendly discussion, and the scheme was adopted. A Committee was then appointed, to act until the first election under the scheme. Votes of thanks to the Committee, the Secretaries, and the Chairman, were carried by acclamation. Many graduates from a distance were present, among whom we observed Dr. Birkbeck Nevins, of Liverpool, Dr. Williams, of Swansea, Dr. Russell, of Birmingham, Mr. Colfox, of Bridport, &c. The tone of the meeting evinced strong determination to obtain a proper place for the graduates in the University. The speakers urged the necessity of moderate, but regular and general subscriptions, in case the decision of the Senate rendered necessary a prolonged agitation of the claims of the graduates.

King's College, London.—The Annual Report of this Institution stated the number of matriculated medical students to be 196, occasional students 27, for the past year. It noticed further the imperfect accommodation afforded by the present hospital, and the steadily increasing number of patients, last year's returns showing an increase of 3167 upon those of 1849. The fund for the erection of the new hospital now amounted to 33,320*l.* 5s. 9d., leaving a further sum of 16,769*l.* 14s. 3d. to be collected. The site of the building has been purchased. The Bishop of London presided at the distribution of the prizes. Professor Guy, the dean, read a short report of the condition of the medical school, which he described as highly satisfactory. The conduct and attendance of the pupils left no ground for complaint. *Anatomy.*—1st. prize, F. N. Macnamara; certificates of honour, H. B. Franklin, W. Langford, second year; G. K. Curme, G. Skrimshire, R. B. Searle, first year. *Physiology.*—1st prize, F. N. Macnamara; certificates of honour, A. Playne, T. H. Cheatle, W. Langford, J. H. Drew, second year; G. Skrimshire, G. K. Curme, W. Pearl, R. B. Searle, first year. *Chemistry.*—1st prize, H. W Lewer; certificates of honour, W. Langford, C. J. Jackson, W. Pearl, G. K. Curme, G. Skrimshire. *Chemical Manipulations.*—1st prize, F. N. Macnamara; certificates of honour, H. W. Lewer, W. E. Masfeu. *Materia Medica.*—1st prize, A. D. Smith; certificates of honour, H. W. Lewer, J. H. Sylvester. *Surgery.*—1st prize, A. M. Edwards; certificates of honour, F. W. Headland, J. H. Sylvester. *Medicine.*—1st prize, E. Liddon; certificates of honour, W. R. Masfeu, J. H. Sylvester, F. W. Headland, W. Hoar. *Midwifery.*—1st. prize, T. H. Cheatle; certificates of honour, R. Wilkinson, J. H. Sylvester, S. B. Partridge, G. Lawson. *Botany.*—1st prize, A. Playne; certificate of honour, R. Wilkinson. *Forensic Medicine.*—1st prize, E. A. H. Head; certificates of honour, S. B. Partridge, M. L. Burrows. *Comparative Anatomy.*—1st prize, E. A. H. Head. *Medical Clinical.*—(Winter,) E. Liddon; certificate of honour, J. H. Sylvester; (summer,) J. C. Dickenson. *Surgical Clinical.*—(Winter,) A. M. Edwards; certificates of honour, E. D'Arcy Evezard, C. Lee; (summer,) J. C. Dickenson; certificate of honour, J. B. Cockburn. *Medical Society's Prize.*—J. K. Spender. *Associates.*—R. C. R. Jordan, D. H. Monckton, H. Smith.

King's College Hospital.—The Quarterly Meeting of the Governors was held on the 5th instant, and the Report read, from which it appeared, that on the 1st of January 114 patients were in the house; 300 had since been admitted, making a total of 414. Of these 250 had been cured or relieved; 16 were discharged incurable, unrelieved, or disorderly; 32 died; and 116 remained under treatment. The out-patients numbered 68,941, and the total admissions since the opening of the Hospital was 13,048 in-door, and 182,605 out-door patients. The proposed Parliamentary Bill for a Charter of Incorporation was next read, and Sir W. Riddell requested to watch its progress in Committee.

Bristol Medical School.—The annual distribution of prizes and certificates of honour took place at the Medical School on the 1st of May, at the opening of the summer course. After a very suitable address to the students, Mr. Henry Clark awarded the prizes to the following successful candidates at the last examination:—For proficiency in the studies of the third year, a prize to Mr. G. L. Poole, and a certificate of honour to Mr. C. A. Hadow; for proficiency in the studies of the second year, the first prize to Mr. J. A. Ellis, the second to Mr. W. H. Day, and a certificate of honour to Mr. H. H. Cox.

St. Mary's Hospital.—An adjourned meeting of the Board of Governors was held on Friday last. At the previous meeting, the report of the Medical Staff Committee, recommending Dr. Handfield Jones, F.R.S., Dr. Lankester, F.R.S., Dr. Markham, Dr. Miller, and Dr. Sieveking, as candidates for the office of assistant-physician; and Mr. Brown, Mr. Dampier, Mr. J. Lane, Mr. J. Maclise, Mr. B. Norman, Mr. Henry Smith, and Mr. Haynes Walton, as assistant-surgeons, was read. Two amendments, one moved by Dr. Heale, that the Report be not received; and another, moved by Dr. James Bird, that the candidates for the office of assistant-physician be referred to the College of Physicians, were lost by a large majority. An amendment proposed by Mr. Kemshead, a member of the Medical Staff Committee, that the Report be referred back to the Medical Staff Committee, came on for discussion. Dr. Heale moved, that the Minutes of the last meeting be not confirmed; this, not being seconded, Mr. Kemshead's amendment was discussed. Mr. Kemshead complained, that the medical staff had endeavoured to interfere in the election of the assistant-physicians and surgeons, and on that ground he had moved the present amendment. Mr. Lane stated, that he believed it was the duty of the medical officers already appointed to give their support to those candidates whom they deemed best fitted to perform the duties of the hospital. Mr. Martineau, a member of the Medical Staff Committee, hoped the Board would not vote in favour of Mr. Kemshead's amendment, as he felt that, although its ostensible object was to prevent the medical officers from interfering in the ensuing election, yet its real object was to get Dr. Lankester removed from the list of candidates. He thought Dr. Lankester was not eligible as a candidate for the office of physician; but he wished the Board to determine that question independent of any other. Dr. Lankester stated, that he had been returned as a candidate by the Medical Staff Committee; he had the support of the Medical Staff and he believed nine-tenths of the Medical Profession connected with the Hospital; and on two occasions the majority of the Board of Governors had voted in his favour; he, therefore, could not believe that the Medical Staff Committee would recal their recommendation, even if this amendment were carried. With regard to his eligibility as a candidate, he maintained that the law of the hospital was most explicit. He had sought the opinion of the highest legal authorities in the country on this subject, and they were unanimous in their assertion, that all the "licentiates" of the London College of Physicians had the same status in relation to the College; and contended, that the law of the Hospital, which required that the physicians must be fellows or licentiates of one of the Colleges of Physicians of the United Kingdom must embrace the licentiates *extra urbem* of the London College of Physicians. He complained of the attempt made by one or two disappointed candidates and their friends to oppose his election to St. Mary's Hospital, as a gross violation of professional courtesy, and unworthy the great object the Governors

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of the hospital had in view,—the securing to the sick-poor the most efficient medical aid. Dr. Pettigrew complained, that the Medical Staff Committee, in recommending candidates, had been open to personal solicitations, and had systematically disregarded the professional claims and qualifications of the candidates they had recommended. The chairman, Mr. Bond Cabbell, having put the amendment, it was carried by a majority of 31 to 26.

London Hospital Medical School.—The annual distribution of prizes took place on Tuesday, May 6, in the presence of a large body of the Governors of the Hospital, and of the pupils and their friends, C. B. Stalfield, Esq., the Chairman of the House Committee, presiding. Gold medals presented by the Governors of the Hospital to pupils for zeal and intelligence in attending to the patients.—*Medical.*—Robert Brudenell Carter, Tiverton. *Surgical.*—Alonzo Henry Stocker, Sheerness. *Medicine.*—Senior class, gold medal, Thomas Peete, Margate; honorary certificate, A. H. Stocker: junior class, silver medal, Harry May, Peckham. *Surgery.*—Senior class, gold medal, A. H. Stocker; honorary certificate, Henry Hanks, Bath: junior class, silver medal, Horace Kersey Debenham. *Anatomy and Physiology*—Senior class, gold medal, George Edmund Smale, Plymouth; honorary certificate, Thomas Peete: junior class, silver medal, H. K. Debenham. *Chemistry.*—Silver medal, Robert Walker Jenkins, Charing; honorary certificate, Sydney Haynes, London. *Forensic Medicine.*—Silver medal, T. Peete; honorary certificate, G. E. Smale. *Materia Medica.*—Silver medal, G. E. Smale; honorary certificate, Thomas Busby Jeffs, London. *Midwifery.*—Gold medal, A. H. Stocker; honorary certificate, R. B. Carter.

Middlesex Hospital.—The last quarterly Report showed that there were 265 patients in the hospital, and that an average of 45 had been admitted weekly. A donation of 10*l.* had been received from a poor gentlewoman, who had long been a patient in the Cancer Ward, peculiar to the Institution, and died there. It was sent at her earnest request, when dying. The anniversary meeting will be held on the 11th of next month.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 25th ult.:—

Crocker, Henry, Launceston, Cornwall.
Cupiss, Francis Philip, Diss, Norfolk.
Dunn, Joseph Thomas Holt, Whitstable, Kent.
Osborn, Henry, Southampton.
Taylor, Thomas Henry, Hanbury, Gloucestershire.
Turle, John, Holloway.
Tuson, John Edward, Harley-street.
Walker, John Herbert, Sheffield, Yorkshire.

And on the 2nd instant,—

Allday, Francis, Merthyr Tydvil, Glamorganshire.
Blackett, Joseph Byron, Green-street, Park-lane.
Carter, Richard, Toronto.
Cockburn, James Balfour, Guernsey.
Darlington, John George, Prees, Salop.
Jackson, William, Bolton-le-Sands, Lancashire.
Skinner, John, Exeter.
Stephens, William Bray, Plymouth.
Whatmough, Charles, Whitchurch, Salop.

Sydenham Society.—The Anniversary Meeting was held on the 1st inst., at half-past 8 p.m., Mr. Phillips, F.R.S., Vice-President, in the chair. The attendance was remarkably scanty, consisting chiefly of members of the Council; very few non-official members of the Society were present. The Annual Report was read by the Secretary; after which an account of the financial state of the Society was given by the Treasurer, from which it appeared that there were about 2,000 subscribing members. The balance in hand was stated to be about 700*l.* The adoption of these Reports was moved and seconded, and was about to be put from the chair, when Mr. Rogers asked why the meeting was not convened by circular, as was usual in other Societies, instead of merely by advertisement? The Secretary replied, it was owing to the expense. To which Mr. Rogers rejoined, that the expense would be comparatively slight,—15*l.* would be sufficient; and if the funds would not allow that, it might be met by an additional subscription of threepence. He added, that the expense was not the real reason for not circularising the members; but the desire of the Council to keep the meeting snug, and confined to their own friends, so that they might carry every measure as they pleased. The Secretary here stated that the meeting had been advertised, and he supposed that was all that was required. Mr. Rogers answered, that the paucity of attendance was a reply to the Secretary's observation; he believed that not one out of twelve members had seen or noticed the advertisements. He then inquired as to the duties of the Secretary, and remarked on the large salary paid him, while the secretaries of the other medical societies of the metropolis served gratuitously. Some points of pecuniary importance he next touched upon, more especially with reference to the editorial department, 495*l.* 17*s.* 6*d.* having been expended in one year in editorial charges. He finally commented on the fact, that few if any General Practitioners were on the Council, although the Society was mainly supported by them. This spirit of exclusiveness was owing, he thought, to their unwillingness to admit fresh blood into the corporation. In reply, the Secretary said, the average expense of editing was 190*l.* per volume, and that of the 24 members of Council, five were General Practitioners.(a) Dr. Copland spoke highly of the Secretary's services, and said he revised the productions of the Society before going to press. He added, the remarks of Mr. Rogers were merely a repetition of the anonymous charges made in the medical journals. Mr. Rogers disclaimed having written any of those letters. Other members spoke to the same effect, and the resolution was then carried. The following is the list of the new officers of the Society:—President, Sir James Clark, M.D., Bart., F.R.S. Vice-Presidents: W. P. Alison, M.D., F.R.S.; Sir John Richardson, M.D., F.R.S., K.C.H.; R. Cusack, Esq., M.R.I.A; J. A. Paris, M.D., F.R.S., President of the Royal College of Physicians; J. A. Symonds, M.D.; B. Phillips, Esq., F.R.S.; R. Dunglison, M.D.; J. Hodgson, Esq., F.R.S.; C. Locock, M.D.; T. Shapter, M.D.; Sir C. Hastings, M.D.; A. D. Anderson, M.D.; T. Turner, Esq.; Prof. Miller; A. Robertson, M.D., F.R.S. L. and E.; T. Watson, M.D., F.R.S. Council: E. F. Lonsdale, Esq.; E. L. Birkett, M.D.; A. B. Garrod, M.D.; W. R. Basham, M.D.; Golding Bird, M.D., F.R.S.; W. D. Chowne, M.D.; T. G. Balfour, M.D.; Marshall Hall, M.D., F.R.S.; James Copland, M.D., F.R.S.; H. Powell, M.D.; R. P. Cotton, M.D.; John Forbes, M.D., F.R.S.; R. Quain, Esq., F.R.S.; E. Headland, Esq.; J. Hilton, Esq., F.R.S.; W. F. Barlow, Esq.; W. J. Iliff, Esq.; J. Pereira, M.D., F.R.S.; O. M'William, M.D.; C. C. de Morgan, Esq.; E. H. Sieveking, M.D.; J. W. Woodfall, M.D.; D. Maclachlan, M.D.; R. Partridge, Esq.

Naval Appointments.—Surgeon John Ferrier (1840) to the Impregnable, flag-ship at Devonport.—Assistant-Surgeon John M. Duffus (1849) confirmed to the Niger, 14, screw steam-sloop, on the west coast of Africa station.

Assistant-Surgeons in the Navy.—The non-recognition by some of the commanding officers of Her Majesty's ships, of the right of assistant-surgeons in the navy to cabins, more especially in the Mediterranean, was brought before the House on the 5th inst. by Captain Boldero. Sir F. Baring asserted the intention of the Government fully to carry out the resolution of the House, and promised to send out orders to ascertain whether it had been adopted in the Mediterranean fleet.

Obituary.—On the 2nd instant, at Portland-terrace, Southampton, Charles Young, Esq., Assistant-Surgeon Royal Artillery, aged 33.—At San Francisco, California, James Bruce, Esq., surgeon, late of Maitland, New South Wales.

Medical Appointments and Vacancies.—The office of surgeon-dentist to the Bleinheim-street Dispensary is vacant, also that of apothecary to the Bloomsbury Dispensary, and the surgeoncy to the Royal Infirmary for Diseases of Children.

Charitable Bequests.—The late Rev. R. W. Baxter, B.D., rector of St. Peters, with Kingsthorpe, Northampton, has bequeathed the following legacies:—To the Hospital for Consumption, Brompton, 1000*l.*, to the Convalescent Society, Carshalton, 350*l.*, and to the Infirmary at Northampton, 100*l.*

Epidemiological Society.—A Committee of this Society, engaged in investigating the facts connected with small-pox and vaccination, are desirous of obtaining information from every authentic source, and request answers to any or all of the following questions before the 1st of July next:—

1. Have you any record of the cases of small-pox which have fallen under your observation, whether
   a Natural,
   b After a previous attack of small-pox, or
   c After vaccination;
and if so, would you state the number of each kind, and any particulars you may be acquainted with, especially with regard to the ages of the patients and the character of the attack in each class of cases?

2. What has been the mortality in each class that you have specified, and in how many cases, especially in those after vaccina-

(a) This is an error: there are only three General Practitioners on the Council, including Mr. Barlow, the apothecary to the Westminster Hospital.—Rep.

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tion, could the death be fairly ascribed to small-pox, or to previous, coincident, or superadded disease?

3. In each case of small-pox after vaccination, how long a period had elapsed since the performance of the vaccination?

4. In cases of small-pox presumed to be after vaccination, what was the evidence of the vaccination having been effective?

5. Have you any facts to show that the protective or modifying power of vaccination bears any relation to the number of genuine cicatrices left by the operation?

6. Have you seen the vaccine disease and subsequent small-pox occur in the same individual; and, if so, in how many cases?

7. Have you ever had an opportunity of watching an epidemic of small pox from its outbreak to its termination; and would you favour the Society with the result of your observations? The Committee are desirous of being informed whether the disease first appeared among the resident inhabitants of the district, or whether it was imported, or produced by inoculation.

8. Have you any evidence of the spread of small-pox from the improper exposure of persons labouring under the disease?

9. In what manner are you in the habit of performing the operation of vaccination? How many punctures or incisions do you make? In a person whom you have vaccinated, what are the tests which satisfy you that the vaccination has been effective?

10. Are you in the habit of omitting to vaccinate in the winter; and, if so, for what reasons?

11. Are you able to maintain a supply of lymph? If not, how are you supplied? Have you (at any time) experienced difficulty in obtaining lymph when required?

12. Have you ever seen any anomalous effects follow vaccination, or anything to support the notion that other diseases may be introduced into the system through vaccine lymph?

13. Have you ever vaccinated directly from the cow, or known any one so vaccinated, and with what results?

14. In how many cases have you re-vaccinated? what were the results of the operation? what evidence had you in each case of the former vaccination having been effective? Have you any facts in proof of re-vaccination affording additional protection from small-pox?

15. By any inquiries you have had occasion to make on the outbreak of small-pox, have you ever been able to ascertain, or could you now ascertain, the number of unvaccinated persons in your town, parish, or district?

16. Have you known instances in which vaccination of all the inhabitants of a village or district has prevented the epidemic visitation of small-pox, although it prevailed in adjoining places; and, if so, will you state the exact particulars?

17. What have you found to be the principal obstacles to vaccination being universally practised? and can you suggest any plan for insuring the vaccination of every person throughout the kingdom?

18. Have you yourself been vaccinated, and at what age? Are there any cicatrices visible; and, if so, what is their number and character? Have you been re-vaccinated, and with what effect? Have you been frequently exposed to small-pox? Have you taken small-pox? and, if so, what period had elapsed since the vaccination, and since the re-vaccination?

Printed circulars containing the above questions will be forwarded on application to the Secretary. The inquiry is one of great importance, and we do not doubt but a large number of the Profession will readily aid in its solution, and contribute to the utmost the results of their experience.

MEDICAL CHARITIES BILL, IRELAND.—The Faculty of Physicians and Surgeons of Glasgow have petitioned the House of Commons, praying that the qualifications of the Medical Officers to be appointed under the Medical Charities Bill for Ireland, be defined so as to include the Fellows and Licentiates of all public medical boards of the United Kingdom, who have been examined in all the branches of the Medical Profession.

GENERAL HEALTH ACT.—Market Harborough, Great and Little Bowden, and Yarmouth, have petitioned against being brought under the operation of this Act. There are some people who have a natural love for filth and disease.

THE ship Statesman has lately returned to England with troops from Hong-Kong, having lost twenty-two men while at sea from dysentery.

LONGEVITY.—The Paris correspondent of the *Times* states, that a Polish soldier died lately, in the Hotel des Invalides, at the advanced age of 127.

GIBRALTAR.—Dr. W. Hackett, Deputy Inspector-General of Hospitals, has been appointed Inspector of Health at Gibraltar by His Excellency the Governor.

DEATHS *in the Metropolis for the week ending Saturday, May* 3, 1851.

Causes of Death.	May 3				Sum of Ten Weeks.
	0	15	60	All Ages	
All Causes	418	321	222	994	8829
Specified Causes	442	319	222	983	8776
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	141	19	17	177	1660
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	2	21	21	44	457
3. Tubercular Diseases.	84	117	10	215	1857
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	67	29	32	126	1136
5. Diseases of the Heart and Blood-vessels	1	24	17	42	311
6. Diseases of the Lungs, and of the other Organs of Respiration ...	51	43	47	136	1382
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	21	27	12	60	538
8. Diseases of the Kidneys, &c. ...	11	6	9	16	87
9. Childbirth, Diseases of the Uterus ...	...	6	...	6	108
10. Rheumatism, Diseases of the Bones, Joints, &c.	4	4	1	9	82
11. Diseases of the Skin, Cellular Tissue, &c.	2	...	...	2	15
12. Malformations	2	...	...	2	25
13. Premature Birth and Debility ...	21	...	...	21	207
14. Atrophy	26	1	4	31	134
15. Age	...	...	45	45	515
16. Sudden	3	5	1	9	105
17. Violence, Privation, Cold, and Intemperance	16	12	6	34	260
Causes not Specified	1	2	...	11	58

1. Small-pox ...	14	Paralysis	22	Disease of Spleen	...
Measles	31	Delirium Tremens	1	8. Nephritis.....	...
Scarlatina ...	13	Chorea	1	Nephria or Bright's Disease ...	2
Hooping Cough	57	Epilepsy	6	Ischuria	1
Croup	5	Tetanus	...	Diabetes	3
Thrush.....	1	Insanity	...	Stone	...
Diarrhœa ...	8	Convulsions	46	Cystitis	1
Dysentery ...	1	Disease of Brain, &c.	10	Stricture of Urethra ...	1
Cholera	...	5. Pericarditis...	3	Disease of Kidneys, &c.	8
Influenza ...	11	Aneurism ...	...	9. Parasemia ...	...
Purpura and Scurvy	...	Disease of Heart	39	Ovarian Dropsy.....	...
Ague	...	6. Laryngitis ...	3	Childbirth (see Metria)	3
Remittent Fever	...	Bronchitis ...	68	Disease of Uterus, &c.	3
Infantile Fever	1	Pleurisy	1	10. Arthritis	2
Typhus	25	Pneumonia...	53	Rheumatism	2
Metria or Puerperal Fever	3	Asthma	10	Disease of Joints, &c.	5
Rheumatic Fever	1	Disease of Lungs, &c.	11	11. Carbuncle ...	1
Erysipelas ...	4	7. Teething	9	Phlegmon ...	...
Syphilis	2	Quinsey	1	Disease of Skin, &c. ..	1
Noma or Canker.....	...	Gastritis	1	17. Intemperance	...
Hydrophobia	...	Enteritis.....	5	Privation of Food.....	...
2. Hæmorrhage	3	Peritonitis ...	5	Want of Breast-milk	5
Dropsy.....	17	Ascites.....	2	Neglect	...
Abscess	...	Ulceration (of Intestines, &c.)	2	Cold	...
Ulcer	...	Hernia.....	3	Poison	3
Fistula.....	...	Ileus.....	2	Burns and Scalds	2
Mortification	6	Intussusception	1	Hanging, &c.	9
Cancer	16	Stricture of Intestinal Canal	2	Drowning ...	6
Gout.....	2	Disease of Stomach, &c.	4	Fractures ...	7
3. Scrofula	8	Disease of Pancreas ...	...	Wounds	2
Tabes Mesenterica	8	Hepatitis.....	5	Other Violence.....	...
Phthisis (or Consumption)	145	Jaundice	3	All Violence	29
Hydrocephalus.....	50	Disease of Liver	15		
4. Cephalitis ...	19				
Apoplexy.....	23				

BIRTHS AND DEATHS.

	Births.		Deaths.		Births over Deaths.	
Males	757	1487	484	994	273	493
Females	730		510		220	

The Deaths in the several Districts are as follow:—

Districts.	Population in 1841.	May 3, 1851.	Sum of Ten Weeks.
London...	1948369	994	8829
West	301189	141	1379
North	376568	208	1577
Central...	374199	183	1636
East	393067	209	1930
South	503346	253	2305

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TO CORRESPONDENTS.

Sarcina Ventriculi—Professor Goodsir. Their pathological importance is still *sub judice*.

Mr. G. Denby.—Time will right the grievance complained of more effectually than agitation. In all public bodies there are some men who move slowly, —and well it is that there are,—for if the "fast men" drove the coach down hill without a "drag," it would soon be upset, and then woe to the outside, as well as to the inside passengers.

An Old Correspondent.—Thanks. If we may judge by the strongly-expressed congratulations of some of the best men, morally and intellectually, in the Profession, we need no meretricious aid to maintain the first position.

B. O.—Declined. The subject is hardly professional enough for our pages.

MEDICAL ETIQUETTE.

[To the Editor of the Medical Times.]

SIR,—A and B reside in the same street, but are personally unacquainted. While A is from home, a patient of his is taken suddenly ill. B is sent for, considers the case to be one of great severity, bleeds, and prescribes calomel and opium every four hours. Six hours after B first saw the patient, and during which time B calls twice—A returns, visits the lady, and finds her labouring, as he supposes, under an attack of aggravated hysteria. He prescribes some valerian, and advises the patient to forward B a guinea for his two visits, etc. In forty-eight hours the lady is walking in one of the parks, only complaining of a sense of weakness. In the mean time B calls at the house of the patient, returns the fee, and informs an aged relative that A's conduct is ungentlemanly and unprofessional. Will you, Sir, kindly point out "the law" in the matter; for if I know anything of A, he desires only to act on this, as well as on other occasions, as becomes a member of that noble profession to which he has the honour to belong.

I am, &c. A MEDICAL MAN.

[A should have called on B either before or immediately after visiting the patient, especially as he differed from B in his view of the nature of the case. A ought to have expressed (and may, perhaps,) his difference of opinion from B to the patient in as gentle or ambiguous words as possible. The public greedily catch at differences of opinion between medical men, and though now and then a man may rise by decrying his neighbour's knowledge, the Profession always suffers. B ought to have called on A when he felt himself aggrieved, and not on the patient. We feel confident, from the tone of our Correspondent's letter, that A is a high-minded man; that B is the same, we also feel confident from the fact of his declining the fee. We suspect, too, that both are young men. If A will but call on B in a right temper, we are sure they will, ere their interview is over, be excellent friends.]

Student.—Consult some of your excellent teachers; there is not one connected with the school who would refuse advice under the circumstances.

One Fond of Art.—University College is indebted to Miss Denman for the magnificent works of art contained in the Flaxman Gallery. Some of the pieces of sculpture are said to be almost unrivaled.

Mr. G. Temperance will find the information he requires in the last volume of the "Medical Times." The Index is sufficiently copious.

M. B., Lond.—The Senate *must yield*,—the only question is *when* will they yield? Two of three years' *quiet energy* will open the gates.

B. M., Edin.—It is true, although at first we could scarcely credit the report. The conductors of the "Edinburgh Monthly Journal" refused to allow an advertisement of Mr. Lizars' work to appear on the cover of their Journal. As a consequence, the Profession must hold those gentlemen henceforth responsible for the accuracy of the statements made in all works advertised in their periodical. How can some of the men, whose names we see among the conductors of the "Edinburgh Monthly Journal," consent to be the cat's-paw of the Right Royal Professor? Surely he reigns over them with an iron sceptre.

Halifax.—Wounds of the heart are not necessarily fatal. Cases are on record in which foreign substances of considerable size have been found in the heart years after the injury by which they entered must have been inflicted.

M.R.C.S.—The Cholera Report will doubtless appear before very long. Learned bodies, such as the one in question, necessarily move slowly; they do well not to commit themselves rashly.

Juvenis.—"Hope told a flattering tale," etc. The saying is stale, but true for all that.

Mr. F. Mann.—Hastings, or Ventnor.

Vienna.—Dr. Peter's translation of Rokitansky's work extended only to one hundred and sixty pages. We suppose the sale was not large enough to encourage him to proceed in his difficult task. It was published, in 1845, by Radde, of New York, and Baillière, of London. The learned Professor is engaged, it is said, on a second edition. Perhaps the Council of the Sydenham Society wait for that to appear.

O. O. O., Cornwall.—The libel doubtless owes its existence to the well-known Father of Lies. There is no man whose character might not be blasted by insuendos. Mr. Liston died of aneurism, and the reports in question are as unfounded as they are libellous. We could not have supposed that they required contradiction.

A Friend.—Mr. Lee has given *soirées* on previous occasions in the same place, without any obstacle being thrown in his way. The refusal to allow him to give one this year was in harmony with the President's generally urbane and courteous conduct.

[To the Editor of the Medical Times.]

SIR,—In my letter on "Scotch Diplomas," Saturday, May 3, there are two errors of the press which I will trouble you to correct:—Column 1, line 3, for "slaked" read "shaked;" column 3, line 1, for "arrested," read "wrested."

Great Yarmouth. I am, &c. M.D., Edin.

Dr. Frederick Bird's Papers on Ovariotomy.—Our Correspondent must put no such interpretation upon the non-appearance of Dr. Frederick Bird's papers on Ovariotomy. That gentleman is pledged to the Profession and to ourselves, to publish his cases, and most undoubtedly he will do so. Dr. Frederick Bird lately informed us he was nearly ready for publication. We fully understand our Correspondent's anxiety.

[To the Editor of the Medical Times.]

SIR,—In a review of Dr. Monro's work on Insanity, published last week in your periodical, (page 488,) the reviewer asserts that I entertain opinions relative to the seat of the soul, so absurd and so untrue, that I deem it right to deny that I have ever entertained any such opinions as those that the writer attributes to me.

The Reviewer makes me say:—"You are all wrong,—the soul, surrounded by its own ethereal atmosphere, sits on its throne in the fourth ventricle. I alone am the true servant and interpreter of Nature."

In the first place, I have never published any opinion on the cerebral seat of the soul; secondly, I have never uttered such trash, as that the seat of the soul is in the fourth ventricle; nor lastly, have I ever had vanity enough to dub myself the true interpreter of Nature.

I trust, Sir, that your love of truth and justice will induce you to insert this note in your forthcoming Number. I am, &c. WM. STEVENS.

Wick-house, Worcester.

[We rejoice to find Dr. Stevens able to deny the parentage of the "trash" attributed to him. It is true, that Dr. Stevens has not *published*,—that is, not *printed*,—his opinions concerning the seat of the soul. It seems to us to matter little to the argument of the reviewer of Dr. Monro's work, what "local habitation" Dr. Stevens may give the soul—whether it sits in the fourth ventricle or in the third; but we do think, considering the great perseverance with which the opinions of Dr. Stevens upon the subject have been urged in private, that it is full time his views were made public. The antecedents of Dr. Stevens will command an anxious and most attentive hearing for any views and statements he may bring forward.]

Dr. Lee's communication was in print before we received his last letter

A Sufferer must avoid advertising specialists, and apply to any legitimate practitioner. He will soon be cured.

The microscope required for researches into the nature of urinary deposits need not be a very expensive one. Dr. Goldirg Bird recommends ("Urinary Deposits," third edition,) that it always be provided with a good half-inch, or still better, quarter inch achromatic object-glass. Oberhauser, of Paris, sells a very economical instrument of the kind—his "Microscope pour l'hospice." Ross, Powell, and Smith, of London, all sell efficient instruments for seven pounds, and Dancer, of Manchester, for ten pounds. Dr. G. Bird speaks of a very useful microscope made by Pillisher, of 398, Oxford-street, for five pounds.

A Subscriber of some Standing.—We fully agree with the opinions of our Correspondent, but we object to the style and tone of his letter. Couched in other terms we will readily publish our Correspondent's communication.

The Statistical Society holds its sittings at No. 12, St. James's-square. Communications are to be addressed to the Secretaries.

James S—.—One brother is not responsible for the other's debts, unless he act as executor under a will, or has actually signed an engagement, admitting his responsibility. Perhaps evidence of a verbal admission to that effect made by the defendant, might have some influence in a County Court, but it must not be relied on. If Mr. S— cannot himself attend a County Court, he will have some difficulty even to prove his debt. Our Correspondent had better consult a respectable solicitor, or communicate to the Medical and Surgical Practitioners' Society, 57, Lincoln's Inn-fields, whose Secretary would perhaps afford the necessary information.

John.—The Principal is not justified in acting as stated, upon the frivolous grounds assigned. The procedure, under any circumstances, would be irregular and not defensible in law. The Principal would be required to certify that the apprentice had served him for the due period; and under the circumstances contemplated such certificate could not be conscientiously given. We advise our Correspondent to behave with proper respect and conciliation towards his Principal and family, and thus, as far as in him lies, avert the misfortune of a rupture.

Mr. Gibbons' paper on "Uterine Hæmorrhage with Abortion," shall receive early insertion.

Dr. Mair's paper on "Ptosis and Amaurosis," is in the hands of the printer.

COMMUNICATIONS have been received from—

Mr. WADE, of Dean-street, Soho; Dr. EDWARD ROE, of Plymouth; Mr. PRICHARD, of Bristol; JOHN; Mr. WIBLIN, of Southampton; Dr. HENRY PEACOCK, of Chatham Dockyard; SECRETARY OF SMALL-POX AND VACCINATION COMMITTEE OF THE EPIDEMIOLOGICAL SOCIETY; Mr. SHAW, of Durham; M.D., Edin.; Dr. JAMES STEVENS, of Ardrossan; Dr. LEET, of Dublin; Dr. STEVENS, of Wick House, Worcester; Dr. SNOW BECK, of Langham-place; Dr. RADCLIFFE, of Henrietta-street; Dr. BRYSON, of the Admiralty; Dr. BASCOMB, of Wick House; A SUFFERER; Mr. JORDAN; Dr. LANE; A SUBSCRIBER OF SOME STANDING; Dr. CHARLES KIDD, of Kingsland-crescent; Mr. G. DENBY; AN OLD CORRESPONDENT; B. O.; A MEDICAL MAN; STUDENT; ONE FOND OF ART; Mr. G. TEMPERANCE; M.B. Lond; M.D. Edin.; HALIFAX: M.R.C.S.; Mr. F. MANN; VIENNA; O. O. O.; A FRIEND; A NAVAL SURGEON; CLINICAL STUDENT; Dr. MCWILLIAM, R.N., of Trinity-square; SECRETARY OF BRITISH MEDICAL FUND.

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ORIGINAL LECTURES.

LECTURES

ON

DIGESTION, RESPIRATION, AND SECRETION.

GIVEN AT THE ROYAL INSTITUTION, TO THE MEMBERS, AND TO THE PUPILS OF ST. GEORGE'S HOSPITAL.

By H. BENCE JONES, M.D., F.R.S.,
Physician to St. George's Hospital.

(Continued from page 473.)

ON THE CHANGES WHICH TAKE PLACE IN THE NON-NITROGENOUS ORGANIC SUBSTANCES, AS STARCH, SUGAR, FAT, OUT OF THE BODY.

In my previous lecture, gentlemen, I showed you some of the changes which, out of the body, albuminous substances can undergo, partly by the influence of acids and alkalies, partly by the influence of other bodies themselves undergoing change, as in the instance of amygdalin and emulsin, and partly by the action of oxygen. I come now to show you the influence of the same agents upon the second great class of organic substances—substances which contain no nitrogen.

Composition of Non-nitrogenous Organic Substances.

Muscle Sugar	..	C_{12}	H_{12}	O_{12} + 4 HO
Grape Sugar	..	C_{12}	H_{12}	O_{12} + 2 HO
Cane Sugar	..	C_{12}	H_{11}	O_{11}
Starch	..	C_{12}	H_{10}	O_{10}
Dextrin	..	C_{12}	H_{10}	O_{10}
Milk Sugar	..	C_{10}	H_9	O_9
Valerianic Acid	..	C_{10}	H_8	O_3 + HO
Butyric Acid	..	C_8	H_7	O_3 + HO
Mannite	..	C_6	H_7	O_6
Lactic Acid	..	C_6	H_6	O_5
Acetic Acid	..	C_4	H_3	O_3 + HO
Formic Acid	..	C_2		O_3 + HO
Oxalic Acid	..	C_2		O_3 + HO
Carbonic Acid	..	C		O_2

This Table shows you the composition of these non-nitrogenous organic substances, and it gives the relative proportions of their ingredients, namely, carbon, hydrogen, and oxygen. It also shows their relation to carbonic acid. The composition of all is so far identical that they contain no nitrogen.

If these non-nitrogenous substances are acted on by oxygen to the furthest degree, we determine the proportion of the elements which they contain, by collecting the carbonic acid and water thus produced. This is the ordinary method of making an organic analysis; the method, indeed, by which these numbers were determined. When these substances are oxidized to the furthest degree, there is a formation of carbonic acid and water, and nothing else; these being the ultimate products of the action of oxygen upon non-nitrogenous organic elements.

Before bringing before you other changes less extensive and complete than the formation of carbonic acid and water, it is well I should show you by what test I can recognise the presence of these non-nitrogenous bodies, and how we can tell when they have undergone changes or remain unchanged. It is not sufficient to determine the proportion of the carbon, hydrogen, and oxygen which they contain; this is nearly the same in all; some, indeed, do not differ at all in actual atomic composition, but in their chemical reactions and relations they are totally different.

The best example of all, and the first of these bodies which I shall bring before you, is starch. It occurs the most constantly in the vegetable kingdom, and it is that substance which is of the most consequence to us; for, probably, from it the other non-nitrogenous substances of which I have to speak in this lecture arise. What, then, are the means by which we can determine the presence of starch in any solution? We have a most beautiful and delicate method. I have here a solution of starch. If I add to it some free iodine, I get immediately an intense blue colour. It is a more delicate test to add a solution of hydriodate of potash. A few drops of a dilute solution are sufficient to determine the presence of starch, provided the iodine is set free, which can be done by chlorine water, and, far better, by means of dilute hydrochloric acid and nitrous acid. If I add very dilute hydrochloric acid to the starch and iodide of potassium, there will be no perceptible change produced; but if I add, in addition, the smallest quantity of any nitrite—as, for instance, nitrite of potash,—it immediately acts upon the hydrochloric acid, and the smallest possible traces of starch can thus be detected by the blue colour which is produced. For this beautiful test we are indebted to Dr. Price.

Closely related to starch is a substance called *dextrine*. It is produced from starch by merely heating it, and by acting upon it by many chemical agents. The composition of dextrine is precisely similar to that of starch; but it is totally different in its chemical re-actions. If I take, for instance, a mixture of starch and water, and boil it for a short time, the starch will not become perfectly clear and soluble, but will become gelatinous, and remain in the form in which you see it. Dextrine, on the contrary, is perfectly soluble in water,—starch is insoluble; and we see the important end which is obtained by the insolubility of starch,—it withstands the action of the rain,—it cannot be dissolved and washed away from the plants in which it is found. Let me show you how different in its re-actions this dextrine is from starch. I will add some water to a solution of it; and then I may show you that it differs from starch by repeating the former experiment. You will see that, on adding iodine, or on setting it free from hydriodate of potash, a distinct red colour is produced in place of the blue. These differences are of great importance in reference to the absorption of starch; for starch, as long as it is insoluble, cannot be taken up into the vessels; but, when it is converted into dextrine, it can be absorbed with the greatest facility. When starch is acted on by mineral or vegetable acids, it speedily loses its consistency, and becomes thin and limpid, as you see in this flask, in consequence of the formation of dextrine. The experiment is made best by sulphuric or oxalic acids, for they can be afterwards separated by lime, the sulphate or oxalate of lime remaining on the filter, whilst the solution of dextrine passes through. When the ebullition with the dilute acid is long continued, the dextrine undergoes a further change into grape-sugar. The time requisite depends on the quantity of acid present. Fifteen parts of starch, sixty of water, and six sulphuric acid, require four hours boiling. Nitric acid converts starch into oxalic and malic acids. Dilute alkalies have no action on starch. Let me now say a few words on the tests for different kinds of sugar. There is a great difference in the chemical reactions of sugars, though there is the closest agreement between them in composition. It is of great importance to be able to determine and detect the different kinds of sugar, to be able to tell when they are present in a body or not. Of all the tests for sugar, the most interesting and important is that of sulphate of copper and liquor potassæ, which I have brought before you already. When these act upon different kinds of sugar, they produce very different results. If I take cane-sugar, existing in the purest state as sugar candy, and treat it with sulphate of copper and liquor potassæ, I get a certain result; but with grape-sugar the same re-agents produce entirely different re-actions. If I take cane-sugar in a pure crystalline state (I do not use lump sugar, as it may contain grape-sugar) —if I take a solution of sugar-candy, and add a very dilute solution of sulphate of copper and liquor potassæ, even before the liquid is heated you will see that it assumes a beautiful blue colour. If I boil it for a few moments, no change will be perceived if the sugar is perfectly pure; but if, instead of cane-sugar, I take grape-sugar, which differs slightly in composition, and treat it in the same way, the same blue colour will at first be seen; but if I heat it a change rapidly takes place; the sugar takes away some of the oxygen from the oxide of copper, and the result is the formation of a sub-oxide, which falls as a beautiful red precipitate. If I had boiled the cane sugar and sulphate of copper with liquor potassæ long enough, I should also have got a reduction of the oxide of copper. Hence it is the rapidity with which the change takes place that constitutes the value of this test. These two kinds of sugar differ also in other things besides the re-action produced by sulphate

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of copper and liquor potassæ. I have here two tubes, one containing a solution of cane-sugar, and the other a solution of grape-sugar, and I will try the action of sulphuric acid on both. If I add sulphuric acid to the cane-sugar, and agitate it for a few moments, you will see a darkening commences and rapidly increases, until a blacking-like mass of foam is formed; while, with the same treatment, the grape-sugar is scarcely affected. In the one case there is quite a violent action, evidenced by the heat and charring which are produced; and, in the other, no such action whatever occurs. This does not depend on the strength of the solution, but on the kind of sugar used. Let me show you the difference in the action of liquor potassæ on these two sugars, that you may see how differently alkalies act on these substances. Look how the grape-sugar is acted upon by the alkali with great intensity, while the cane-sugar is scarcely acted upon at all. Liquor potassæ, you know, is used as a test for sugar. It is a tolerable test for grape-sugar, but no test at all for cane-sugar. (Experiment.) In this case the action of the liquor potassæ is the reverse of that of the sulphuric acid; one acts on the cane-sugar intensely, and the other on the grape-sugar.

The ease with which the cane-sugar is changed into grape-sugar is also worthy of notice, and can be easily shown. I have here a solution of cane-sugar, and you know what happens if I mix it with sulphate of copper and liquor potassæ, and apply heat; no reduction will take place quickly. But, if I add a drop of sulphuric acid to the solution of cane-sugar and boil it for a second, and then apply the copper test, the reduction takes place as with grape-sugar. I have here two solutions of cane-sugar, one with sulphuric acid and one without it. If I boil the solution to which sulphuric acid is added—and it does not require much-boiling—the change will rapidly take place. And now let me apply my test,—the sulphate of copper and liquor potassæ, or, to avoid diluting it too much, a little potassa fusa and sulphate of copper. The solutions, you see, become beautifully blue, in the one case as in the other case. But if I boil the two solutions, the re-actions will be different. If I boil the solution to which sulphuric acid has been added, you will see an immediate reduction will take place, and the change into grape sugar will become apparent. If I boil the other solution no change will occur, because no grape sugar is present.

Thus we have a method of detecting the presence of starch, dextrine, and sugar. We can now trace some of the changes which take place in these substances out of the body; the change, for instance, which takes place in germination. The difference between barley and malt is represented in my diagram. The starch of the barley has under-

Relation of Barley to Malt.

	Barley.	Malt.
Starch	598	431
Gluten	57	12
Albumen	4	
Diastase		2
Sugar	46	154
Gum—dextrin	44	150
Oil	4	4
Salts	5	5
Husk	136	136
Water	106	106
	1000	1000

gone a change, and an increase has taken place in the sugar and gum. What happens, then, when this malting takes place? Here is the body known by the name of *diastase*. There is no diastase in barley; but it is produced in malt. There is less albuminous substance in malt than in barley, and diastase is produced out of the albumen by the operation of malting, and it is this substance which is the active agent in setting up the change of the starch into sugar. It acts most energetically at a temperature of 140 to 150 Fahr.; at this heat one part of diastase will convert two thousand parts of starch into sugar. Starch, then, can be changed into sugar simply by the action of malting. Even when a pile of grain is heaped up, and a certain temperature produced, part of the starch will undergo change, and some sugar will be produced. This is owing to the action of the albumen,—a substance closely related to, though slightly differing from, diastase. Its action is, without doubt, similar to that of synaptase, or emulcin, on amygdalin. Diastase produces no action on sugar, gum, or gluten; its special action being, as I have said, on starch.

Another remarkable change which non-nitrogenous organic substances can undergo is seen in fermentation, in the action of yeast upon sugar. Yeast is a substance of an albuminous character, and is somewhat similar to diastase. When it is mixed with a solution of sugar, and kept at a certain temperature, you know what happens. The result is mentioned in my diagram. Simply by the action of this ferment the sugar is divided into alcohol and carbonic acid.

Alcoholic Fermentation.

Carbonic acid	4 equivalents	C_4		O_8
Alcohol	2 „	C_8	H_{12}	O_4
Grape-sugar	1 „	C_{12}	H_{12}	O_{12}

That carbonic acid is produced, I can show you by an experiment, in which the bubbles of carbonic acid gas rise through lime-water, which is thereby rendered milky. This action of yeast is similar to that of the diastase, though both are called catalitic actions, yet little of the real nature of the action is, at present, known to us. If time permitted, I might go into other details of this fermentation. I may here only allude to a beautiful experiment which, if conducted with care, gives a very satisfactory result. I have a wide glass tube, open at both ends, a piece of muslin is tied over one end, and it is then put into a solution of sugar. Within the tube, resting on the muslin, some yeast is placed with care; we have then two solutions, separated only by a piece of muslin, which prevents the escape of the yeast from the one solution into the other. In the inner fluid, which contains yeast, fermentation goes on; but in the outer fluid, which is separated by muslin only, so that the yeast cannot pass through, no fermentation takes place. (Experiment.) Hence this action of fermentation arises from the contact of each particle of sugar with a particle of the yeast; indeed, it has been called the *contact action*. This, however, is a mere statement of the case, and is no explanation of the action whatever. The experiment beautifully illustrates how the action is not propagated by the contact of one particle of sugar with another particle of sugar. The liquid within and without is clearly continuous; the difference being only that the yeast does not touch the outer fluid, whilst it does touch the inner one; setting up the fermentation in one case, but not in the other.

Yeast does not always give rise to carbonic acid and alcohol. If, for instance, I take some yeast in this flask, and boil it with water, and then put it with sugar to ferment in the warmth, I scarcely get a trace of alcohol or carbonic acid; but I get a highly acid body produced, lactic acid, and a substance which is known as mannite; these are formed in consequence of the yeast having been boiled. Mannite and lactic acid, as you see, contain the elements of dry grape sugar, if one equivalent of oxygen be separated from it.

Grape-sugar — Oxygen = Mannite + Lactic Acid.

$$C_{12}\ H_{12}\ O_{12} - O = C_6\ H_7\ O_6 + C_6\ H_5\ O_5$$

In its usual state, the yeast would have set up an alcoholic fermentation; the boiling is sufficient to deprive it, not of all but of some of its activity. So, also, it is found that azotised albuminous substances,—putrid blood, white of egg, or the membrane of the stomach of the calf, for instance, in an advanced state of putrefaction,—will act as less energetic alcoholic ferments; but in an early stage of decay they possess the power of forming, not alcohol and carbonic acid, but lactic acid. So, also, the azotised matter of malt, when suffered to putrefy in water, in a few days acquires the power of converting sugar into alcohol. The gluten of grain behaves in the same manner. Wheaten flour, if left four or five days in a warm situation, will become an active ferment, producing lactic acid. If left still longer, it produces alcohol and carbonic acid. Casein is remarkable for its power of changing sugar into lactic acid, by mixing two gallons of stale milk, six pounds of sugar, twelve pints of water, and four pounds of chalk, to a creamy consistency. The mixture requires generally to be left in a loosely covered vessel, exposed to a temperature of 60° or 70° Fahr. for about two weeks. Then the whole of the lime will be converted into lactate of lime, which can be thus obtained in unlimited quantities. If exposed to a higher temperature, and for a longer time, the action of the casein ceases to form lactic acid, but gives rise to butyric acid. Professor Scheerer relates the following interesting experiment. Having put a

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mixture of cane-sugar, cheese, chalk, and sour milk, together, and left them in a tolerably warm place, on purpose to produce lactic acid, lactic acid fermentation soon took place, and a quantity of lactate of lime was produced. The residue was left to undergo what he expected would be butyric fermentation. He wanted butyric acid, and he left the mixture for a further change. After some weeks, he went to it, in the expectation of finding butyric acid; but he found nothing else than acetic acid, and also a certain quantity of formic acid,—a body which I mentioned in my lecture on the albuminous substances.

Before leaving these products of fermentation, let me remind you of the substance produced by the partial and complete action of oxygen on these products of fermentation. Alcohol, when dropped on spongy platinum, gives rise, as you know, to acetic acid. If wine containing a small quantity of alcohol is left to stand in the air, with a little yeast mixed with it, the spirit of the alcohol quickly disappears, and in its place acetic acid is produced. If my alcohol, instead of burning slowly but completely, so as to form carbonic acid and water (its ultimate products of combustion), is allowed to burn imperfectly, I have certain acids produced,—acetic acid, formic acid, aldehyde, and aldehydic acid. Other alcohols give different acids. Wood spirit, which is methyle alcohol, if dropped on platinum, gives rise to formic acid. If we take potato-oil, which may be looked upon as another species of alcohol, and oxidise it, it gives rise to valerianic acid, which, you may remember, was one of the products of the decomposition of albuminous substances. Thus valerianic acid can also be produced from the nitrogenous as well as from the non-nitrogenous class of substances. If I oxidise all these substances completely, the result is the same,—carbonic acid and water,—imperfect oxidation giving rise to the acids I have mentioned.

Thus I have tried to bring before you some of the changes which take place in starch, sugar, and acids. I must shortly mention some changes which take place in oily substances, which form another great subdivision of the class of bodies included under the term non-nitrogenous organic substances. Oils and fats consist of one or more fatty acids, combined with a neutral substance called glycerine, though not exactly as simple compounds. Out of most oils and fatty matters, either oleic acid and glycerine, margaric acid and glycerine, or stearic acid and glycerine, can be obtained. The relation of these acids and the composition of glycerine is represented in this table :—

Composition of Fatty Acids and Glycerine.

Stearic acid	C_{68}	H_{68}	O_5	2HO
Margaric acid	C_{34}	H_{33}	O_3	HO
Oleic acid	C_{36}	H_{33}	O_3	HO
Glycerine	C_6	H_8	O	

If I take olive oil, for instance, and act upon it with caustic potash, I can separate it into oleic acid and glycerine. (Experiment.) The oleic acid of the olive oil combines with the potash to form a sort of soft soap. If I heat oil, or any other fatty matter, with caustic potash or caustic soda, I get a soap produced by the combination of the fatty acid with alkali, the glycerine being set free. That such an action actually takes place, can be made very clear. If in this test tube I heat this potassa fusa with olive oil, I shall find the latter loses all its properties of oil by being acted upon by the potash. The oleate of potash becomes soluble in alcohol. The solution, if mixed with any salt of lime, is decomposed; from the soluble oleate of potash, an insoluble oleate of lime is produced. I can show you this re-action by pouring my alcoholic solution into spring water; a milkiness, which indicates the hardness of the water, is produced. If I pour the alcoholic solution into distilled water, no precipitation occurs. In my test-tube a soap-making process is going on, and the bodies are acting energetically on one another, so that I have a solid mass of oleate of potash formed, all the oil having undergone a change, being decomposed into the oleic acid, which combines with the alkali to form an oleate of potash, leaving the glycerine free. If I take the fatty matters existing in butter, I shall get somewhat different fatty acids, the volatile acids of butter, of which I showed you the composition in my third lecture. The decomposing action of the potash is totally different from the mere subdivision of the fat which takes place when it is agitated with alkali and water; and this is of importance for me to mention in reference to a future lecture. If I take a little olive oil and mix it with dilute liquor potassæ (a solution of potash in water), and agitate them, I get a certain emulsion produced. This will take place in the cold, but no decomposition will ensue until the mixture has been boiled for some time. The mere division is of the greatest possible importance in reference to the question of digestion; and it is very necessary that you should understand the difference between the chemical change which ensues in the formation of soap and the mechanical subdivision in the formation of an emulsion, if you are to understand the recent views on digestion which I shall have to mention. The fine division of fatty substances is, as I have said, of great importance. It takes place easily with all these alkaline bodies, and even with some salts and with albumen, but this subdivision is very different from the actual decomposition of the fatty matter and the formation of those chemical compounds which we know as soaps.

I would, if time permitted, show you some more of the changes which these fatty substances undergo. All of them, if burnt, give carbonic acid and water. Glycerine also gives these products when burnt; and if it be left to the action of yeast, at 68° to 86° Fahr., gives rise to an acid called metacetonic acid. It can also probably give rise to lactic acid; with strong nitric acid it gives carbonic acid, oxalic acid, and water. By hydrochloric acid and oxide of manganese it gives formic acid.

Glycerine	+	Water	=	Metacetonic acid.
$C_6\ H_8\ O_3$	+	2HO	=	$C_6\ H_7\ O_5$

Thus I have attempted to bring before you some of the changes which take place in non-nitrogenous organic substances out of the body. Generally, I may state, that these changes are produced first by the contact of these substances with the nitrogenized bodies as yeast, diastase, emulsin, &c., which themselves are undergoing changes; that the second great cause of change is the action of oxygen; and that lastly there is the action of acids and alkalies. In the body albuminous substances in a state of change are always present. The action of the oxygen inspired never ceases. The alkaline saliva and pancreatic fluid, and the acid gastric juice, these, also, by their chemical properties of alkalescence and acidity, act upon the starch, sugar, and fat, which we take as food. How far these acids, alkalies, and ferments are concerned in the process of digestion within the human frame, I shall endeavour to show you in the following lectures.

INTRODUCTORY LECTURE

TO THE

COURSE OF MILITARY SURGERY.

DELIVERED AT

THE CITY OF DUBLIN HOSPITAL, DUBLIN.

By JOLLIFFE TUFNELL, Esq., F.R.C.S.I., M.R.I.A.

Gentlemen,—I propose at our meeting to-day bringing before your notice those branches of our profession which, under the term of military surgery, are more particularly connected with the duties of each public service.

Entrusted at the same time by my colleagues with the honour of delivering the opening address for this session, I shall avail myself of the double opportunity of considering those points which experience has shown to be particularly deserving of your attention, as qualifying you for the faithful discharge of an honourable and responsible profession, one equally seeking the maintenance and restoration of health, whether in a public service or in private life. Health may truly be regarded as the greatest of earthly blessings. It enables the poor man, by his industry, to support himself and his family in independence; it enables the rich man to enjoy the property of which he is possessed. It is the source of our highest pleasures, and the last earthly object human eyes and human hopes look up to.

A science, then, that enables us to afford relief to our afflicted fellow-creatures in cases of the utmost peril, must surely be considered as one of the first of human acquirements.

So considered, how pleasurable the task of investigating the beautiful and wonderful fabric of the human fram ,

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and so cultivating a knowledge of structure in health, as to enable us to relieve man when afflicted by disease!

How much, gentlemen, is implied in the utterance of the word *Man!* It not only embraces his corporeal organism but his mental powers. Endowed by nature with reasoning faculties and inventive genius, man has shown his measureless superiority over the rest of created beings.

By the perfection of his intellect he has raised himself from a state of rude barbarity. Daily—nay, hourly, new discoveries issue forth, new combinations, new improvements; and, though we know full well that the human mind is finite, yet who shall venture to fix a boundary beyond which man shall not pass in his gigantic progress towards intellectual perfection? Man, Shakspeare has defined as a being "noble in reason, infinite in faculties, the paragon of animals, the beauty of the world."

Such the creature we have to study, ere we can undertake the treatment of his ills; and such the creature that, labouring under hæmorrhage or oppression of the brain, for instance, must quickly quit this earthly scene, and return to his parent dust, but for the intervention of our art! And when you reflect that the course of study on which you are now about to enter enables you to effect this end, you cannot but feel a deep sense of the importance of the station which, in after life, in the scale of society, you are destined to hold; nor can you avoid reflecting, how incumbent upon you it is to establish the principles of that science upon the most solid foundation.

This investigation of the laws of animated nature, and observance of the phenomena of life, have gradually established the practice of Medicine and Surgery upon firm and enlightened principles,—principles being general rules deduced from observation of symptoms during life, and of morbid appearances discoverable after death, coupled with the effects of remedies under the various circumstances of their exhibition; and practice—the application of these rules and facts to the prevention, palliation, or cure of human maladies and ills.

In this way we are prepared for the exercise of our calling as a science, grounded upon experience and reason, experience or observation being the labourer which furnishes the materials, and reason the architect which directs their arrangements for practical purposes.

In the present day we are not led blindfold, as in former times, by the authority of others. Men now think, observe, and act for themselves; and, though prejudice or jealousy may oppose obstacles to the propagation of propositions that are unwelcome to those advocating views hitherto received, still error cannot long be maintained, when truth and common-sense are spread around.

The intellect no sooner grasps one primitive truth than the way is paved, the mind prepared for the disengagement of another and of subsequent ones to the consummation of our views, and the establishment of sound and enduring principles, the accumulated facts and inferences of numerous minds successively enlightening each other.

This, then, is the profession you are now about to enter upon.

I have already, upon occasions similar to the present, traced the rise and progress of Surgery from the earliest ages down to our own enlightened times, and shown the progressive stages by which the practice of Medicine became raised from the cradle of Superstition by the arm of Empiricism, handed up into the lap of Science. I have pointed out the gradual course by which Surgery became linked with war, tending to humanise and palliate its horrors, and shown the peculiarities attendant upon the duties of a military life. I would to-day enter briefly upon the consideration of those points which are connected with your future professional career.

Surgery has acquired much, if not learnt its most important precepts, in the battle-field. The imperious demands for surgical aid, however imperfectly supplied, have been of a similar nature, whether for those who served at the Siege of Troy, or for those patriot Greeks who, in our own time, struggled for independence upon the plain of Athens, from the time of the imperial Cæsars to the recent bombardment of Rome, from the battle of Cressy to that of Ferozeshah or Goojerat. But in addition to these (the more immediate wants of those wounded in battle), the wide-spread dimensions and the extended commerce of our native country have created wants altogether unknown to other times and to other nations.

Possessed of an army, including that of the East India Company, of nearly 400,000 men, and a navy whose flag has floated triumphant from Indus to the pole, these may well be supposed to merit and to claim the most anxious care of the parent State, as well as the best exertions of those who may be entrusted professionally with their charge. Soldiers and seamen are instruments with which the naval and military commander is to perform offices of an important nature. His object, therefore, is to possess these instruments in perfection to the highest degree. This cannot be the case without the possession of vigorous health, and health cannot long be maintained in armies without the practice of health regulations, precise and systematic in their parts.

The preservation of health, then, equally with the cure of disease, constitutes the objects in instituting a medical establishment for a public service. The first, the preservation of health, is to be maintained by a knowledge of the organization of animal structures, as acted upon by a variety of contingent causes; the second, the cure of disease by the direct application of medical skill. The education of army and navy surgeons is, therefore, an important object in a national point of view.

The army and the navy of a country may be regarded as the property of the Executive Government, and, considered as property, it becomes the duty of the Government to economise its expenditure. If the question be viewed in this light, and if the decision be left to the test of experience, this proves decidedly, that it is more effective of purpose, more economical of money, to preserve a force efficient for action by a suitable health-establishment, than to fill up its ranks by a levy of fresh subjects, when its parts have failed by disease, or been disabled by war. The reason is this: The veteran soldier, cured of his wounds, or recovered from disease, is ordinarily of more value than the newly-raised recruit, inasmuch as he is more instructed in his art, more confident in his military powers. It becomes, then, a measure of economy, independently of humanity, to husband the lives of our soldiers and our seamen, by the best attention to health that the medical art commands. This, perhaps, may be better understood by a reference to pounds, shillings, and pence, when it is shown, that the marketable value of every private soldier dying in our East India possessions is 135*l.*; this sum being required to train, equip, and bring from Europe, another man to place in his stead.

It cannot, therefore, but be allowed, that the education of those destined for the medical service of a country should be as perfect as the resources of that country will permit, with the view of establishing the utmost degree of medical skill, both of that kind which, by system and order, shall give effect to the daily discharge of duties indispensable and routine, as well as for those great occasions, in case of complicated difficulty, where exertion of genius is required; and I affirm, that the subject demands the deepest attention of the State. But, whilst special opportunities have been afforded to the surgeons of the British army and navy to develope and appreciate the resources of their Profession, little has been done to encourage them in this praiseworthy object, or to hand down to their successors in office the experience they may have acquired in climates previously unknown, localities unexplored, or circumstances unforeseen.

It is true, that returns are called for, and medical and statistical reports; but, after being compiled with care, they are often buried in the archives of a public office, and are not rendered available to the junior members of the Profession. The only medium of instruction to which public assistance has been afforded, is the solitary Professorship in the University of Edinburgh. The Chair of Military Surgery established there, owes its origin to a spirited memoir addressed to the Government, after the battle of Camperdown, by the late John Bell; and it is to his admirable suggestions that Edinburgh is now indebted for the Professorship she possesses.

This office, upon its foundation, was first filled by Dr. Thomson, author of the work on Inflammation, a man of unbounded learning and talent, but, educated in civil life, he was altogether unacquainted, from personal experience, with the habits and life of the soldier. The course of lectures on military surgery was incorporated with, or merged in, the the general course which he delivered, as Professor of Surgery to the Royal College of Surgeons, and thus the chair failed to attain that individual character and reputation

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which it now enjoys,—a character and reputation it should have held during the continental war. Upon the termination of the latter, however, it was vested in the hands of its present possessor. He speedily attached to it an interest and importance previously unknown; and it is but justly due to Sir George Ballingale to state, that to his talents and to his exertions are to be attributed the high respect and esteem now entertained for that chair. He did not confine the course to a decision upon gun-shot wounds, (subjects taught, more or less, in every school,) but made it to embrace a multiplicity of topics of vital importance to the welfare of our armies and our fleets, a summary of which is given in the prospectus of this course.

These subjects had not been touched upon before. Sir George Ballingale had to break new ground, and no little amount of prejudice and error to overcome. He found professional and popular notions of military surgery vague and undefined. In asserting that military surgery demanded a separate consideration from that of surgery in general, he was asked to explain how the recruit of to-day differed from the countryman of yesterday? Whether in changing from the rustic garb into the gay hussar, such an alteration became effected in his anatomical structure as to require a special line of treatment for his cure? To this his reply was very brief. No change in the man himself, but a vast change in his position in life. He had now become liable to accidents and diseases which would never have befallen him in his rustic state; accidents and diseases which occur under circumstances and in situations requiring that the surgeon entrusted with his charge should be specially instructed how to meet.

Will he be so instructed in the course of education that fits him for private life? No, gentlemen, the subjects included in this course, under the head of military surgery, are those which are not dwelt upon in the lectures on surgery in general. They are not embraced in any other course, medical or surgical, or made the subject of instruction to the student.

The course of study which you must follow in order to obtain your diploma, and before you can become eligible for the service, that path has been trodden by me. Yet I was never once taught how to examine a recruit, or shown the points on which his efficiency for the service depends. I was never taught how to construct temporary accommodation for him when sick, or how to move him when wounded, on a line of march. I was never taught how to discriminate between true and feigned disease, or how to treat the scourges of the tropics. Yet had I fully pursued that curriculum of education that was to fit me for an army life, and was supposed to be prepared to meet every casualty of pestilence and war. When subsequently called upon to perform some of its varied duties in the East, then, indeed, I became sensible of how much I had to learn.

What then are the particular subjects which he who is destined to serve in our army and navy should particularly study, in addition to that knowledge of his profession as required for private life?

He should be thoroughly acquainted with the points most essential in the selection of the recruit for the service.

He must understand the principles of hygiene, and be prepared to maintain the health of soldiers and seamen in all situations, and under all circumstances in which they may be placed.

He must study the subject of climate so far as regards health, the geographical distribution of diseases, and the causes of endemics. He must be thoroughly acquainted with the theory and treatment of diseases of the tropics.

He should understand the duties of the surgeon on the field, and how to move sick and wounded on the march.

He must not only be prepared to construct temporary hospital accommodation, but must also understand how to maintain the economy and discipline of them.

He must be acquainted with the effects of coercive and corporal punishment, the peculiarities of feigned disabilities, and the causes which permanently disqualify men for the service.

These points, until the institution of this course, had not been taught in the School of Surgery in Ireland, and it was to obviate the necessity of your seeking elsewhere for this instruction, that I was first induced to undertake the task.

Briefly to define the differences which characterise the practice of our Profession in the public service and in private life, one may be considered chiefly as aiming at the prevention, the other wholly at the cure of disease.

For the exigencies of the public service, how much better is that man qualified, who, by prompt and efficient means, shall prevent the outbreak of illness, than he who by skill as a physician shall save life only when affected by it. Military surgery is not, therefore, so much a distinct branch of the science of healing, as it is the application of each branch of that science to the prevention and cure of disease in all the varied circumstances and situations unavoidable in an army life. This is the object of this course, and in furthering it, I can only say, that my best efforts shall be devoted.

Satisfactorily to acquire a knowledge of your Profession, whether for public or private life, you will find it necessary to attend to many circumstances; the two main features, however, being the human body in its healthy condition, and the same object when suffering from disease.

Practising in the public service, the position you are hereafter to hold will be one of the highest responsibility and trust. On your single decision will the life of your fellow-creature depend. You cannot lean on the judgment of others. You must act upon your own opinion, unaided by friendly counsel, and must determine upon what is to be done when the life of an intimate friend hangs upon the issue. One, perhaps, not only dear to you as a comrade and companion, but bearing to others all the relationships of society, having all those ties which bind a man to existence, and the virtues which make his life dear. In such a case, I say, you will have to act; by your sole judgment must the operation be guided; on your dexterity will its execution depend.

The exigencies of a public service require that those entering shall be capable, in their own individual persons, of discharging those varied duties of our Profession, which, in private life, are assigned to separate members. The divisions and subdivisions which we recognise in the practice of this Metropolis, will not answer the emergencies of naval or military life.

In your own persons, I say, you must equally combine the functions of the physician and surgeon, the accoucheur and apothecary.

But there is another branch yet, which in private life and in metropolitan practice has, as it were, by common consent, been assigned to the care of individual members. I mean the study of the eye.

To you, however, a knowledge of this organ and its diseases will be absolutely essential, whether practising on the staff, or serving as regimental surgeons.

The type of disease you are familiar with in visiting military hospitals in this country, that subacute inflammation of the organ, affords but a faint idea of the malignant form in which ophthalmia occasionally ravages troops.

As a proof, I need only refer to the records of the 52nd regiment, a corps that mustering little over 700 strong, had in one year no fewer than 637 cases of this disease, terminating by 50 men being deprived of loss of sight in both eyes, and 40 with the loss of one.

In five years our army had no fewer than 2317 soldiers discharged blind from its ranks, and thrown upon the country for support.

These facts will point more strongly than any language I could utter to the importance of this subject. Why, you may ask, do I dwell so particularly on the subject now? Because, studying in this institution, where separate wards are appropriated for the reception of every form of disease of the eye, studying under the superintendence of a man whose knowledge of the organ and its affections has gained for him a European reputation, guided by the experience of Dr. Jacob,—I say, it will be your own fault, if you do not acquire, and carry forth with you to the world, the fullest practical information on every point connected with ophthalmic disease.

Commencing your Profession now, with the prescribed period of study before you, let me impress on you, therefore, the necessity of acquiring a *practical* acquaintance with each of the branches I have just named.

I know, that associated with ideas of war and military excitement, fancy sometimes leads to the conclusion, that external injuries and diseases, as the particular province of the surgeon, are to be the only branches devolving on you. Experience will teach the reverse. Every grade of the Profession must be centered in you.

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On the field of battle, in the midst of pestilence, in the laboratory of the pharmacies, in the chamber of parturition, you must equally be prepared to act.

This summary of your duties will imply the demands that will be made upon your professional skill. You will not, I repeat, be enabled, as in civil life, to select any one particular branch, that you may feel more than ordinary predilection for, or for the acquirement of which you may have had more than ordinary opportunities afforded. You will have to practice in each and all, and require, therefore, a practical, a sound, and a general education.

Recollect, too, that the class of persons on whom you are to practise, have no voice in the selection of their medical attendant. They are bound, by military law, to obey every order you utter, and not only this, but are subject to punishment if they venture to transgress.

You, therefore, are equally bound to qualify yourselves for the different duties you may be called upon to perform, to do so with sensibility and anxiety for the welfare of your patient, and though necessarily uninfluenced by the exhibition of pain, and unmoved by the sight of a fellow-creature writhing under the edge of your knife, yet still possessed of that sensibility for suffering that ever has, and ever will distinguish the educated gentleman from the butcher.

In the discharge of your duties you will be expected to detect and comprehend all the aberrations, all the deviations from the natural standard of health. Leave no method, then, untried to improve yourselves, and do not neglect any portion of your professional studies. Be minute observers of facts, attentive investigators of disease, and careful inspectors of the bodies of the dead.

These studies will prepare you for the exercise of your art with a certainty and success that cannot attend those whose knowledge rests only on superficial observance. This may be sufficient to guide to correct diagnosis in cases easily cognisable by peculiar and prominent features; but, where external appearances are wanting, it will be necessary to be guided by analogical reasoning, the absence or presence, the cause or amount of pain, comparison of symptoms present and the history past, with other similar cases, and the general deviation from health; this capability of distinguishing minute differences constitutes the man of judgment.

Let me here also impress upon you the fact, that the degree of respect and esteem which you will engender on joining a public service, will be correspondent to the amount of your professional knowledge. Believe me, it is an erroneous notion to suppose, that the officers of either a regiment or ship seek to find in the surgeon a mere mess-table friend. They desire rather a man of education, of a cultivated and polished mind; the professor of that professional experience which, in sickness, is to restore them to health; when wounded, to relieve their suffering and distress. These qualities are perfectly compatible with the fullest enjoyment of social life, and are what every man entering a public service should, in his own person, endeavour to possess.

How, then, are you to acquire that perfect knowledge of the human body which I affirm is so necessary, and without which you cannot rightly treat injury or disease?

Anatomy is the first step in the ladder; its importance and indispensability is now, indeed, admitted by all classes, excepting, perhaps, homœopathists and fools.

Anatomy teaches the component parts and textures; for it is vain to attempt to understand the functions of an organ until minutely acquainted with its structure. This gained, we are prepared for the study of Physiology,—a science that teaches us to consider the living body as a whole, endowed with certain powers, regulated by certain laws, and performing certain actions which, in the harmony of their operations, constitute and maintain the state of health.

Informed, then, by these two sciences, of the conditions of the body in health, we turn to Pathology, to make us acquainted with the change of textures that take place under the influence of disease; and, knowing the changes which occur as the result of disturbances in the functions of a part, we are prepared to avert consequences of a prejudicial kind.

Educating for a public service, where demands may be daily made upon you for the treatment of every modification of accident, injury, or disease, it behoves you to be perfect masters of anatomy; not to rest satisfied with acquiring that mere nominal acquaintance with this art which we know can be got up by grinding, and which, perhaps, may enable you to gain your diploma. This, indeed, is unjustifiable,—it is criminal in the highest degree.

The knowledge of your Profession is not handed to you in exchange for the licence-fee. It merely authorises you to do with impunity what another man might have to answer for with his life.

Anatomy is not to be learned from books, engravings, or any other device. These will not convey to you a true idea of the shape and structure of the different portions of the body. They must be learned by the joint aids of sight and touch,—by the use of the scalpel alone.

At the same time, mere anatomy will not suffice. It must not be allowed to supersede other sciences equally required; for a man may be a perfect anatomist, know every portion of the human form, yet, if ignorant of physiology and pathology, he cannot otherwise than empirically practise his art.

You must cultivate these sciences combined. You must study them in the full sense of the word.

Take the osseous system, for example. You must first learn what a bone is; how originally formed; what substances, earthy and animal, enter into its formation, and its different conditions and appearances at different periods of life. This is osteology this is the physiology of bone. Unless acquainted with the manner in which bone is formed, its gradual development, its degree of vitality, and powers of reparation, you cannot understand it in disease.

So, in the same way, with the muscles. It is not sufficient to know their number, names, origins, and insertions; you must also learn what muscle is,—what the peculiar powers it possesses,—what circumstances augment, what diminish, these powers. You must also impress yourselves with a knowledge of their actions; thus, with comparative ease, you will be enabled to reduce dislocation and fracture. Whilst studying anatomy, there is one division of the animal structure which should particularly demand your attention: I mean the arterial system. As military surgeons, a knowledge of the relative positions of the larger vessels is of vital importance; it should literally be at your fingers' ends.

Do not waste your time in getting up (as is frequently the case) the course and distribution of minute and anastomosing branches, or, at all events, until you are thoroughly acquainted with, and have learned everything relating to, those trunks which lie exposed to injury, and require surgical interference. Those, too, who practise in the country, apart from other medical men, should equally study the surgical anatomy of the larger vessels, and be ready, unaided and alone, if called up in the dead of night, at a moment's warning, to cut down upon and secure the main trunk, or tie the bleeding points.

No reading will teach you this; it must be learned by actual dissection. It is by dissection that we acquire that confidence so necessary in operations,—that knowledge which enables us to plan and provide for all the different steps, and to be prepared to meet the accidents and delays inseparable from its execution.

It is thus that we are enabled to note the reasons why an operation should not be undertaken, or, when fitting, where we may act with freedom and dispatch, or where we must proceed with delicacy and caution. A knowledge of structure gained by anatomy, a knowledge of office must follow. It is the influence of the living principle acting upon organised matter to produce certain actions; these actions are denominated functions.

To preserve a due equilibrium, to regulate the excess or diminution of these functions, is also the effect of the same principle; and to be enabled to appreciate these changes, and notice any deviation from the natural standard of health, includes the next subject,—the doctrine of physiology.

Physiology teaches us to think for ourselves, to collect facts, and to reason on them. In the words of Dr. Blundell, it discloses to us the recesses of nature, and puts into our hands the talisman by which her operations are controlled.

It leads us, as Abernethy remarks, to inquire into the means by which we live, and move, and have our being. We are by it induced to form a just estimate of our powers and consequence in the creation, and to acquire that difficult and important information,—a knowledge of ourselves; a knowledge which enables us to arrive at the best means of preserving health, and which equally teaches us to comprehend the nature, and thence the cure of disease.

For this purpose we have now to bring another science—the science of medicine—to our aid.

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The organ for circulating the blood, the apparatus for supplying it with air, the system for regulating the motions and secretions of the body, together with those for preparing matters for its support and removing those superfluous or effete —all these become the physician's immediate care, demanding his utmost attention, since, when affected, their derangement assumes two very opposite conditions,—that of functional or organic disease, differences which, with treatment, it is of vital importance that he should distinguish.

By the word *functional*, we are given to understand, that the organ itself is unchanged, retaining its original structure, but, owing to some local or general interference with its actions, rendered incapable of discharging its part in the maintenance of that harmony and balance in the animal machine that constitutes what we know as health. By the word *organic*, that actual change in the structure of a part that renders it incapable of performing its functions; a condition that, unless compensated by some reciprocal action in another organ, must eventually terminate life.

These variations are hidden from the view, and are recognisable only by their symptoms.

Medicine, therefore, to be practised as a science, requires not only, as in anatomy, the education of sight and touch, but of those other qualifications that shall tend to the elevation of the mental powers, and assist in inductive reasoning. I cannot, therefore, too strongly urge on you the necessity for general education in arts, sciences, and language, the sources from whence arise the development of the intellectual powers.

That this has its effect in actual practice, may be gained from an observance of the lives of those who have risen to special eminence in our Profession. These men have shown a determination, not merely to be content with the possession of technical information, but equally to excel in literature and arts.

Some whom I have the honour to address are still pursuing a University course, whilst others have only lately resigned the field of school education. To the first, I would say, do not be content merely to pass through college; but, whilst there, avail yourselves of the advantages and opportunities it affords. To the second, do not utterly resign your acquaintance with classics and mathematics, for if once dropped in all probability they will *never be resumed*. Increasing intercourse with mankind assures me of the truth of what I say, a truth which I believe very few will controvert.

Taught, then, by anatomy the structure, by physiology the functions, by pathology the derangements, and by medicine the rational treatment, of disorders of the human frame, we turn to surgery as the climax of the whole.

It not only enables us to meet injuries the result of accident, but also those deeper-seated disorders, which, arising from constitutional causes, and accompanied more or less by disturbance of the general system, are finally developed in some portion of the body.

Derived from induction, not founded on hypothesis, surgery has been raised from a mere mechanical art to the position it now holds. Raised to its present summit by no *sudden jumps*, but, by the study and gradual labour of those who have devoted themselves to its study, surgery has thus kept aloof, and ever been beyond the sphere of quackery to reach.

No science, no profession appears to have kept pace with it in improvement. Every year new discoveries are making, which contribute much towards the prolongation of life, and the melioration of suffering.

To acquire a knowledge of surgery, there is but one field of observation open,—that field the bedside of the patient, and its source the hospital wards. You will there be enabled to compare existing disease with the description of it given in books, and it is in a hospital only, I say, that this practical knowledge can be obtained. It is there those lessons will be learned which no time can efface, and experience will daily add to the store of information thus afforded.

In hospitals you have the patients under control, and can regularly trace the progress of disease to its cessation or fatal termination. In the latter case, too, you are most favourably circumstanced for gaining an opportunity of examining the actual disease, ascertaining the correctness of your judgment, and the fitness of the remedies employed. Facts are thus accumulated, and the general knowlege of medicine and surgery promoted.

After learning the scientific principles of your Profession, it is in hospitals that you have the opportunities of seeing them practically applied. The precept and example are both before you, and are thus both respectively impressed upon the mind; and by comparing the numerous cases simultaneously presented, you are enabled to discover those minute particulars which distinguish diseases from each other, and form what is designated diagnosis, or a just discrimination between maladies which, *apparently similar*, are really very different in their nature. In fact, the practical knowledge of your Profession is much more readily acquired in the hospital wards than anywhere else; and the public, when asked for their assistance in the support of these noble Institutions, should be made to understand, that the benefit of the information thus gained does not lie uselessly stored up in the mind of the student for his sole gratification or benefit, but, for the purpose of being subsequently disseminated to the advantage of society at large.

In laying down now the foundation for correct elementary knowledge, you pave the way to future greatness in your Profession. You not only secure yourselves as highly useful members of the sphere in which you are to move, but fit yourselves for advancing your art, and, by discovering and extending its important truths, ranking your names amongst the great benefactors of mankind.

The path of science, though thorny and painful at first, becomes smoother and more pleasant the further that you enter in.

When once embarked *persevere*. Let no supposed difficulties daunt; for, believe me, perseverance will lead to the happiest results, for it is by personal exertion alone that men have been advanced to eminence, not only in our Profession, but in every other walk of life.

In conclusion, whilst we certainly have a strong inducement to labour, in the knowledge that our individual profit, our fortune, and success in life, are dependent upon our exertions, we should at the same time reflect, that a higher one exists in the consideration, that the issues of life and death (subject to the will of the Creator,) are thus placed in our hands.

ORIGINAL COMMUNICATIONS.

CASES IN SURGERY.

By HENRY SMITH, Esq., F.R.C.S.

Surgeon to the Westminster General Dispensary.

HYDROCELE, IN WHICH INTENSE SUPPURATIVE INFLAMMATION SUPERVENED AFTER SIMPLE TAPPING.

On Friday, April 4, I was requested to see J. S., aged 53, a man who had suffered a long time from derangement of his respiratory organs. I found him in bed, with a very large swelling on the right side of the scrotum; the integuments were very much inflamed, and he suffered great pain in the part. There were distinct evidences of fluid. He stated that he had carried a hydrocele for two years, and that, on the previous Tuesday, a surgeon introduced a trocar and drew off a large quantity of water; shortly afterwards he suffered from great pain in the part, and the swelling rapidly increased to its present size. There was general fever and restlessness. I ordered opium at night, and an evaporating lotion to the swollen part.

April 7th.—The swelling had increased in size, and the integuments were much inflamed. Ordered four leeches, and a continuance of the other remedies.

8th.—Leeches gave relief; but the scrotum is much more distended, and the fluid extends quite up to the external abdominal ring. The constitutional symptoms are very severe; tongue furred and dry; pulse rapid; he suffers great pain. I now considered it proper to evacuate the fluid, —serum as I thought,—and made a puncture into the scrotum; first serum flowed, and then a large quantity of thick purulent matter mixed with air and blood.

9th.—As the opening was small and did not allow the matter to flow freely away, I laid the part more freely open with a bistoury, by which means more fluid was allowed to escape; the wound was then plugged with lint. Ordered hot fomentations, and a saline mixture with hyoscyamus.

12th.—He has experienced great relief, the pain has

almost entirely subsided, a free purulent discharge has taken place, and the scrotum is much reduced in size. On this day he was attacked with an acute attack of his old complaint, bronchitis, and it carried him off on the 17th.

I examined the hydrocele, which I found was undergoing the process of cure; the tunica vaginalis was thickened; here and there were patches of lymph upon its surface; there was no fluid within the sac; the testicle was healthy.

In this case is presented an instance of most violent suppurative, inflammation occurring merely after the simple operation of tapping,—a circumstance which I have never before witnessed, and which I believe to be rare. I have mentioned the circumstance to some of my friends who have had considerable surgical experience; but they had not seen such a case. Percival Pott, whose attention was particularly directed to this disease, had seen the same thing occur. He says:—

"In most people, the orifice thus made (by the trocar) heals in a few hours; but in some habits and circumstances it inflames and festers. This festering is generally superficial only, and is soon quieted by any simple dressing; but it sometimes is so considerable, and extends so deep, as to affect the vaginal coat, and by accident produce a radical cure. I have also seen it prove still more troublesome, and even fatal."

Pott then goes on to relate two instances where intense inflammation and sloughing occurred after a hydrocele was punctured. In the one instance, the patient recovered with the loss of the entire tunica vaginalis on the one side, whilst in the other death rapidly occurred.

It is a striking circumstance, though, that in both instances the patients were out of health at the time the punctures were made. It will be observed, that in my own case the patient was in an unhealthy condition from suffering long with derangement of the respiratory organs. This will probably account for the supervention of inflammation. Had he not unfortunately been carried off by bronchitis, there can be little doubt that, as Pott mentions, a radical cure would have taken place.

CASE IN WHICH PROFUSE HÆMORRHAGE OCCURRED A FORTNIGHT AFTER THE OPERATION OF LITHOTOMY.

On March 12, I was requested by a neighbouring practitioner to see a little boy, aged 7, who had suffered with symptoms of stone for three months. On sounding him, I detected a large and rough stone.

On the 19th, I performed the lateral operation, and extracted, without difficulty, a lithate stone of considerable size. There was only the ordinary amount of bleeding during the operation.

22nd.—Has been doing well until this morning, when he became dull and stupid, and complained of pain in the hypogastrium. On being changed and replaced in bed, a large quantity of clots came away by the wound. After this he became much better, and went on in all respects in the most satisfactory manner, until the evening of the 30th, when I was hastily summoned to him in consequence of his suffering from severe pain in the lower part of the belly. On going to him, I found him crying out in his agony. On examination, I discovered that the urine which had been passed during the day was tinged with blood, and I found the urethra blocked up by a firm and long clot, which I supposed was causing retention of urine, for by this time the water was coming partly by the urethra, and the external wound had considerably contracted. The clot was at once removed from the urethra, and the symptoms ceased. Two hours afterwards I was again suddenly summoned, and found him as bad as before. More blood, both in a fluid and clotted state, had come away by both outlets, and coagula were filling up the urethra and the wound. The boy had become pale as death, the pulse was rapid and small, and I now clearly discovered that internal hemorrhage into the bladder was going on at a considerable rate, obstructing the free discharge of the urine; and that it was necessary to take some decided measures to relieve the pain, and prevent further bleeding. I first removed the coagula from the wound and the urethra, and then passed a catheter into the bladder through the wound—drew off a considerable quantity of bloody urine with immediate relief to the symptoms. I then moved the point of the catheter freely about in the bladder, so as to break up the clots, and ordered him to take 3 grains of gallic acid and 3 minims of tinct. opii every four hours.

April 1.—Has passed a good night, and suffered no further pain. Several thick coagula came away from the wound during the night; and he has rallied from his depression, but is left much blanched. To take some wine.

He went on very well without any return of symptoms indicating further hæmorrhage until the evening of the 3rd, when I was again hastily sent for to him, and found that blood was coming away in considerable quantity in a fluid state from the wound. He was dreadfully blanched and depressed. I at once passed a catheter through the wound into the bladder, and allowed it to remain there. My friend, Mr. Ure, was kind enough to see this patient with me, and he advised me to keep in as large a catheter as I could introduce through the wound; and suggested the administration of small doses of turpentine. This was given. The catheter was kept in for three hours, when it was extracted, as there was no more bleeding. By this time, however, he was completely blanched, and it was necessary to supply him well with wine and beef-tea.

4th.—He complained of a great deal of pain early in the morning, and soon afterwards an almost incredible quantity of firmly coagulated blood passed away through the wound, and immediately great relief was given; but, when I saw him in the morning, the boy had become so blanched that he was literally like a waxen figure, but he continued to take his beef-tea and wine well, and there was no more bleeding. I ordered him to take small doses of gallic acid every four hours.

At 5 a.m.—On the next morning I was called to him, and found that he had been suffering great pain again, and I supposed that clots of blood were blocking up the urine. A catheter was therefore introduced, but only a few drops of urine were drawn off; the pain, however, ceased. After this he lost no more blood, but the effects of the drain he had sustained were now more visible. His skin was like wax; pulse 140, very small. He became dull and deaf, and at midday he vomited his nourishment, and refused to take it from his mother, and I was sadly afraid that he would sink. However, I visited him every two hours, and gave him small quantities of beef-tea and wine, and directed his mother to insist upon his taking it from her. Towards night the boy began to bear up again, and fell asleep. Next day he was improved, and no more bleeding had occurred. From this date the patient gradually got on, although he lay for some days in a very low condition; but he soon began to rally so fast, that he was enabled in a few days more than the month after operation to walk up to my residence.

This case must be looked upon as one of peculiar interest to practical surgeons, inasmuch as there is presented the very rare circumstance of secondary hæmorrhage occurring so many days after the operation. The surgeon who is about to perform lithotomy always looks forward to the possibility of hæmorrhage taking place to a greater or less extent, and to its proving troublesome, or even fatal; but he expects it at the time of the operation, or some hours after. Every one who has seen much of lithotomy must have witnessed internal bleeding and consequent retention of urine some hours after the patient has been cut; but I apprehend that this occurrence after so long a period is rare. It has not been my lot among the many cases fallen under my observation to witness an analogous circumstance. In one elderly patient whom Mr. Fergusson cut, in King's College Hospital, a slight hæmorrhage took place externally on the ninth or tenth day, but it was not sufficient to cause alarm, and soon ceased.

In the case just related, the loss of blood must have been enormous; and there can be little doubt that a third bleeding would have killed the boy; as it was, he was brought to the very verge of destruction. I have little doubt that the source of the hæmorrhage was the artery of the bulb; for, whilst performing the operation, I hit the groove in the staff somewhat high, and must have cut through the bulb. It is somewhat curious that this vessel should not have poured forth more blood at the time of the operation.

The case teaches us to look to the possibility of profuse bleeding, even when we consider the patient to be quite safe, and even the probability of such a result, especially if the artery of the bulb be wounded, which circumstance, according to Mr. Skey, always, or nearly always, takes place in lithotomy.

Caroline-street, Bedford-square.

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PTOSIS AND AMAUROSIS FROM CEREBRAL DISEASE.

SYMPTOMS OBSCURE.

By R. S. MAIR, M.D.

There is perhaps no class of diseases more interesting, and at the same time, more difficult and obscure subjects of special pathology, than those of the brain and nervous system. We have here, also, as in others, the two distinct methods of studying and describing these diseases,—the first determining the probable or exact nature of the affection, by tracing symptoms to their actual causes; the second, considering a groupe of symptoms as a substantive thing, and making it an object of special study. For this method of investigation to be practised with advantage, the knowledge derived from the former must be presupposed. Morbid anatomy has certainly corrected many erroneous impressions previously conceived; notwithstanding this, and our better acquaintance with the physiology of the nervous system, our means of diagnosis are imperfect, and our knowledge of these diseases less precise than those of almost every other part of the body; their study is, on this account, surrounded with peculiar difficulties, which become more obvious when actual cases present themselves to our notice.

We shall now proceed to give a case in illustration. From its interest and rarity, it may prove of at least some little importance, particularly to those who make such diseases the subject of their special study.

Ann Marshall, aged 40, sallow complexion, of most irregular, intemperate, and depraved habits, was first seen upon the 9th July, 1850, when she complained of severe headache, attributed by herself to what she termed a "burst of work," some few days before. Her face was slightly flushed, tongue furred, stomach disordered, and bowels torpid. From the symptoms, the complaint was considered as one of chylo-poietic derangement; she was therefore ordered some simple laxative medicine, by which, in a short time, her stomach and bowels were put right, tongue cleaned, and headache removed; in short, she expressed herself as completely recovered.

This favourable issue, however, was but temporary; and probably the original disease (if such existed) was merely subdued by the removal of any source of irritation in the primæ viæ; for, upon the 6th August, or three weeks subsequent to convalescence, she again complained, with symptoms much the same as formerly. Face less flushed, tongue, stomach, and bowels in a similar condition, headache more severe, pulse small and feeble, considerable wasting of body, and complained of inefficient nourishment. The same treatment as before was again had recourse to; but not with the same beneficial result. The headache being so violent, but the pulse feeble, a small blister was applied to the nape of the neck, and simple tonic laxative medicines administered. By these the patient was a little relieved; but the pulse being still so very feeble, the patient feeling otherwise very weak, and being much emaciated, she was put upon extra diet, along with medicinal and cordial stimulants. Pills of croton oil, etc., were occasionally taken for the obstinate constipation. Under this treatment, she gradually improved, and in about three weeks again expressed herself as free from headache, and otherwise well enough. On the 2nd September, she was up and doing her domestic affairs.

Three weeks afterwards, she resumed her previous vicious and intemperate habits; her complaint returned, with similar symptoms, but much aggravated; bowels obstinately costive; tongue coated with a thick white fur; pulse so very small and feeble as to be with difficulty perceptible; headache most severe over the vertex; but no delirium, or incoherency of speech. After her stomach and bowels were put into a proper state, the patient, being so much emaciated, was again put upon extra diet with stimulants.

She continued neither better nor worse, until the 7th October, when the first decided symptom of organic cerebral disease manifested itself, in the form of ptosis of right eyelid; three days after which vision became affected, and in two days more, the sight of both eyes was completely gone; there was still no delirium or other mental affection. Small and repeated doses of calomel were given, with little or no apparent effect. The patient, on the 16th October, sunk into a comatose state, from which she could not be roused, and in which she died the same day.

Such is the history of this important case. On perusing it, many points of interest suggest themselves, and an inquiring mind will find abundant scope for the exercise of thought. First of all, cases of ptosis without amaurosis and the converse, are undoubtedly of frequent occurrence; but the conjunction of both in the one individual is certainly rare, since I can find no similar case on searching various medical records of the last twenty years.

If we "trace the symptoms to their actual causes" we may determine, or at least conjecture, the probable or exact nature of the affection. What, then, was the cause of this patient's complaint? Were the subsequent symptoms (ptosis and amaurosis) the result of previous existing cerebral disease? or, was the cerebral disease secondary itself? Lastly, what was the probable nature of this disease?

With regard to the first of these questions, on referring to the report, it will be found that the patient attributed her complaint to a "burst of work;" this may have been, and possibly was the *exciting* cause; but it is highly probable that there was also a predisposing one; this, induced by the low living, intemperate and depraved habits of the patient; here, again, it may be asked, were the head symptoms symptomatic of chylo-poietic derangement, or the reverse? Now, it certainly does appear somewhat singular and striking, that the patient should have enjoyed so long immunity from her complaint at two different periods, and from the fact of the feeling of comfort and convalescence being proportionate to the regularity in which her bowels were kept, it might be inferred that the head symptoms *were* symptomatic of a disordered state of the digestive organs; moreover, the complaint did not return until she resumed her old habits. On the contrary, it is one of the characteristics of nervous disease to be intermittent; and so marked is the sympathy between the viscera of the brain and those of the abdomen, that organic disease of the former may, for a length of time, be kept in abeyance by simple attention to the latter. In such circumstances, it is difficult to come to a decided conclusion whether the cerebral disease was primary—the ptosis and amaurosis as results—or whether it was secondary. There can scarcely be a difference of opinion, however, as to the existence ultimately of serious organic cerebral mischief; the occurrence of ptosis and amaurosis, almost simultaneously, confirms this; and their sudden appearance would tend to the belief that this organic disease was but recent.

What was the probable nature of this disease? was it encephalitis, phrenitis, or any other inflammatory head affection? There were no pyrexial symptoms, no vomiting, no contraction of the pupil, no delirium; there was neither temporary nor permanent flexion of any of the extremities, nor paralysis, nor convulsion, the conjoint occurrence of which is considered by some authors to be pathognomonic of ramollissement.

As for ossification of the arteries, or abscess in some part of the brain, we have no unequivocal symptoms upon which to rely; but the age of the patient forbids the supposition that it was the former.

Is it not probable that the symptoms were dependent upon a state of imperfect nutrition, involving a depraved and perhaps a poisoned state of the blood? her intemperate habits, combined with her living on scanty poor diet, may have, as it were, starved the brain, perverted its nutrition, diminished the supply of blood, and perhaps ultimately promoted effusion or softening of the cerebral mass, or around the roots and course of the second pair of nerves of both sides, and that of the third on the right side. If such be the case, it is remarkable that there was no prominent symptom.

It is much to be regretted that a *post-mortem* examination was not allowed; many points of pathological importance might have been ascertained, and rendered this case much more interesting than it otherwise is.

Crieff, Perthshire.

ANOMALOUS CASE OF PREGNANCY; ABSENCE OF FŒTUS.

By THOMAS UNDERHILL, Jun., M.R.C.S., L.S.A.

Rebecca Allmack, aged 35, wife of a labourer, healthy, the mother of five children, has once miscarried; considers herself in the last month of pregnancy. She has missed the

catamenia since the last week in May, before which they appeared regularly. To use her own expression, she was "caught" in the beginning of June; has always known, by certain symptoms which she cannot describe, soon after she has become pregnant. She progressed favourably till the middle of September, and had, the last few weeks, rapidly increased in size, more so than in former pregnancies. About this time, she had some slight hæmorrhage, which continued several days, and which she attributed to a fright from a neighbour being brought home killed in the pit. After this time, till the beginning of December, there was nothing remarkable, excepting that she did not get much larger; and, as she said, felt the child but very seldom, and very weak. During December, and January 1851, she had several attacks of flooding, but which were not very considerable. On the morning of February 5th, while engaged in her ordinary avocations, violent hæmorrhage came on, in consequence of which I was sent for. Before my arrival the hæmorrhage had ceased; but I perceived immediately, by her appearance, that she had lost a considerable quantity of blood; and from the symptoms, I suspected either entire or partial presentation of the placenta. I carefully made examination, not wishing to disturb any coagulum which might have formed, and found the os uteri high up, and not dilated; I therefore merely recommended absolute rest in the recumbent posture, and cold acidulated drinks. On visiting her the next day, (February 6th) I found she had some slight pains during the night, which still continued, but very little hæmorrhage.

February 7th.—I was sent for early in the morning. The pains had been increasing for some hours, and attended with considerable flooding. On examination, I found the os uteri was still high up, and was dilated to nearly the size of a half-crown. The orifice was, as I anticipated, occupied to nearly the whole extent by the placenta, at the edge, and beyond which, could be felt the membranes, yielding to the finger. With some difficulty I ruptured the membranes, and a considerable quantity of liquor amnii flowed away. I was then rather surprised at not being able to feel the presenting part of the child; but, as the os uteri continued to dilate, and there was not much hæmorrhage, I waited patiently, not deeming further interference necessary. After about two hours, with a strong expulsatory pain, the placenta was expelled, and with it the bag of membranes almost entire. On looking at the placenta, to my surprise, there was no funis attached; and I was more astonished when, on placing my hand on the abdomen, I found the uterus contracted to the size of a small cocoa-nut, evidently entirely emptied of its contents. On careful examination of the placenta, it appeared to be of full size, weighing about one pound, and perfectly formed. The fœtal surface was very level, the vessels not so prominent as usual; it was firm in texture, and in place of the attachment of the funis, the vessels seemed to terminate in a rounded, knotty, smooth prominence. The membranes were nearly entire, and seemed like a large bladder, separated from the placenta for about one-third of the circumference, and contained two large coagula. The woman recovered favourably, and is now (April 14th) though still pallid, perfectly well.

I have no remarks to make on this case. It is, I believe, without parallel, at least, I have never met with a similar case on record. It seems to be one of those extraordinary freaks of nature, which to us are perfectly unaccountable.

Great Bridge, Tipton.

FRACTURE CAUSED BY CONCUSSION.

By HENRY PEACOCK, M.D.,

Assistant-Surgeon to Chatham Dockyard.

John Loft, aged 40, a blacksmith in H.M. Dockyard, of robust make, and strong muscular power, was employed on the 2nd of April last, with what is technically termed a "porter;" in other words, a long pair of pincers or forceps, in which was enclosed a piece of iron, which he held on the anvil for the purpose of being flattened to proper shape. It appears that, not being prepared for the heavy blow of the steam hammer, and, in consequence, holding the instrument unsteady, and with relaxed grasp, the concussion was conducted along its entire length to the arm, causing fracture of the ulna at its lower third. He positively states that he did not receive any blow on the arm; but felt a jarring sensation, as he expressed it. There was little laceration, and no ecchymosis following the fracture, which has since united.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

BY

W. SENHOUSE KIRKES, M.D.,

Medical Registrar,

AND

HOLMES COOTE, Esq., F.R.C.S.,

Demonstrator of Anatomy in the Medical School.

UPON THE EVERSION AND INVERSION OF THE LIMB IN DISEASE OF THE HIP-JOINT.

There are but few surgeons who have not experienced occasional difficulty in forming an accurate opinion as to the character of the morbid changes which occur during life in chronic disease of the hip-joint. In the early stages there is frequently but little pain, and children so affected, especially amongst the poorer classes, are permitted to walk about and pursue their daily avocations, without notice being taken of their lameness, until at last a fall or some other accident excites more acute symptoms, and induces the parent to seek professional assistance. The surgeon finds the pelvis oblique; the affected limb apparently elongated, and slightly everted; he finds that in bending the thigh upon the trunk, the whole pelvis moves with the femur; pressure over the hip-joint excites, perhaps, little pain; there is flattening of the buttock, and the trochanter major appears more sunken than natural. The history accompanying such a case is often as follows:—The child was in perfect health, and able to run about until a week or two ago, when, in consequence of an accident, it was thrown down upon the side. Upon being taken up, it was found to be lame, and has been unable to walk ever since. The history of the case, and the position of the limb, might lead to the belief that the head of the bone was dislocated upon the thyroid foramen, especially amongst those who consider that inversion and not eversion of the foot is the position assumed by the inferior extremity in the early stages of hip-disease. I propose offering a few remarks upon the position of the limb, granting that, as is commonly asserted, there may be either inversion or eversion; that there may exist a resemblance to dislocation on the dorsum ilii, or to dislocation on the thyroid foramen; but denying that such varieties can ever be referred to accident.

In the commencement of an inflammatory affection of the hip-joint, the thigh is bent upon the body; the whole limb is slightly everted and abducted; the anterior superior spinous process of the ilium of the affected side is either raised, when he limb appears to be shortened, and the sound hip more sunken than the opposite, or it is depressed and thrown forwards, when the whole limb appears elongated, the knee being bent, and the toes touching the ground a short distance in front of the toes of the sound limb.

The elevation or the depression of the anterior superior spinous process of the ilium of the affected side depends upon whether the patient happens to have been forced to follow his occupation during the early stages of the disease, or whether he has been in circumstances which allowed him to rest when in pain or uneasiness. The spine of the ilium is generally sunk and thrown forwards, and the limb apparently elongated; that position being the one in which the diseased joint will be easiest, the patient standing upright. But if he be forced to walk about, the pelvis becomes oblique in the opposite direction, the spine of the ilium is raised, and the limb is apparently shortened. The patient, throwing as much as possible of the weight of the body upon the sound side, limps upon the extremities of the toes of the affected limb, the foot being extended that its tip may just touch the ground.

The flexion, eversion, and abduction of the limb constitute the position into which it would be naturally thrown by the combined action of the powerful muscles which surround

the hip-joint. The synovial membrane is inflamed and tender, and unfit to bear pressure; the patient, therefore, instinctively endeavours to relax every muscle directly in contact with the joint. The psoas and iliacus, passing over the front of the synovial membrane and tightly pressing upon it where the limb is extended, flex and evert the thigh, the gluteus minimus will contribute to flex it; the pyriformis will abduct the limb; the gemelli and the two obturators, especially the obturator externus, will evert the limb. It is unscientific to refer the position of the limb to effusion of fluid into the synovial membrane; it is but rarely that we find the joint so distended, especially at the commencement of the disease, when eversion is the common symptom. It may be true, that if the joint be tightly distended by the artificial injection of fluid after death, the limb will assume the position above described. The attachments of the capsular ligament are in harmony with the sphere of action of the muscles which surround the joint. That the muscles which evert the limb may act with greater freedom, the fibrous capsule is unconnected with the posterior part of the neck of the femur; it forms there a ring not very unlike that which surrounds the head of the radius in the forearm. After a sudden fall, or a blow upon the hip, the limb becomes at once everted, if the joint is bruised, long before sufficient time has passed for the capsule to become distended by fluid.

In course of time, as has been proved by innumerable *post-mortem* examinations, the disease produces thickening of the synovial membrane, absorption of the articular cartilage, and ulceration both of the head of the femur and of the acetabulum; the shortened neck of the femur slipping upwards and backwards in the enlarged acetabulum, approximates the fixed points of insertion of all those muscles which have everted the limb. They waste, and become atrophied, being no longer in action, and the buttock appears much flatter than on the sound side. The gluteus medius and the adductor muscles then influence the position of the limb, their power being increased by the absorption of the neck of the femur. We may, therefore, say that, in the second stage of the disease, the limb passes from abduction to adduction; from eversion to inversion. Still flexed, it is drawn across the sound thigh, the toes pointing downwards, when the position somewhat resembles that of a limb in dislocation upon the dorsum ilii.

A little girl, aged 10, was brought to the hospital from the country by her parents, who stated that six weeks ago she was thrown from a cart and bruised, having been previously perfectly well, and able to run about. She was taken up from the spot where she had been thrown, being unable to raise herself, and was put to bed, where she was kept until she was conveyed to town. Since the time of the accident, she has never been able to walk. Admitted under Mr. Stanley. The thigh is flexed upon the trunk, the limb is everted, the pelvis oblique; there is no perceptible difference in length, by accurate measurement, between the two limbs; pressure upon the joint causes no pain; but when the thigh is flexed the pelvis and the femur move as one bone. When the hip is grasped with the whole hand, the head of the bone feels to be in the acetabulum; certainly it cannot be detected in any other situation.

The appearances about the joint are such as to lead to the inference, that in this case there had previously existed chronic disease of the hip-joint; yet the history given by the mother is entirely at variance with such a supposition. After repeated and careful examinations, conducted whilst the patient was under the influence of chloroform, the conclusion was formed to leave the limb in its present condition, there being taken into consideration the length of time which had elapsed since the occurrence of the reported accident, the uncertainty as to the condition of the parts composing the hip-joint, and the frequent inaccuracies which are generally found to pervade stories, where perhaps it is wished to conceal some former inattention and negligence.

H. C.

Mr. Richard Phillips, F.R.S.—This gentleman, who published a translation of the London Pharmacopœia of 1836, and was preparing a translation of the Pharmacopœia of 1851, died on the 11th instant,—the day before the opening of the Museum of Practical Geology, so auspiciously commemorated by His Royal Highness the Prince Consort, and to which Institution Mr. Phillips had been appointed Curator.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	May 17.—Medical Society of London. *Subject*:—Mr. Barlow, "On a Case of Disease of the Brain, with General Remarks." Eight o'Clock.
Monday,	May 19.—Statistical Society. *Subjects*:—1. Dr. Stark, "On the Mortality from Cholera among Troops in the Indian Army, December, 1850." 2. Mr. T. J. Brown, "On the National Debts and Revenues in proportion to the Population and Extent of Area of the various Countries of Europe." Eight o'Clock.
	Chemical Society. Eight o'Clock.
Tuesday,	May 20.—Horticultural Society. Three o'Clock.
	Pharmaceutical Society. *Anniversary*. Twelve o'Clock.
	Pathological Society. *Meeting of Council*. Seven o'Clock.
Wednesday,	May 21.—Microscopical Society. Eight o'Clock.
	Ethnological Society. Eight o'Clock.
	Royal Botanic Society. Quarter to Four o'Clock.
Thursday,	May 22.—Royal Society. Half-past Eight o'Clock.
	South London Medical Society. Eight o'Clock.
Friday,	May 23.—Royal Institution. *Subject*:—Professor Hosking, "On Ventilation by the Parlour Fire." Nine o'Clock.
Saturday,	May 24.—Medical Society of London. *Subject*: Dr. Webster, "On the Sanitary Condition of London during the last Six Months." Eight o'Clock.
	Linnean Society of London. *Anniversary*. One o'Clock.

THE MEDICAL TIMES.

SATURDAY, MAY 17.

THE COMMISSIONERS IN LUNACY, THEIR LAST REPORT, AND THEIR PROPER DUTIES.

The fifth Annual Report of the Commissioners in Lunacy to the Lord Chancellor has been for some time lying on our table; and if we have, contrary to our custom, delayed so long noticing a subject so deeply affecting the interests of the public, it has been from a feeling of reluctance to discharge a duty which is, in many respects, disagreeable and painful.

The Act of Parliament under which the present Commissioners hold office came into operation in the year 1845, and, by its 88th section, they are required, in the month of January in every year, to make a report to the Lord Chancellor of the state and condition of the several houses, hospitals, and asylums, visited by them, with such other particulars as they may think worthy of notice,—which return is every session laid before Parliament.

The public is thus put in possession of just as much evidence as the Commissioners may please to record respecting the condition of these establishments under their jurisdiction; and this, be it observed, is the only tangible evidence we have upon which we can form any opinion of the efficiency and practical working of this Commission; for the Court of the Commissioners, contrary to the spirit of our Constitution, is a closed court,—a Star Chamber,—composed of a very limited number of men, who appear to be invested, to a very great and objectionable extent, with an irresponsible power. We can judge of their efficiency, therefore, only by the account which they give of themselves and their proceedings,—how many special investigations they have instituted,—how many miles of country they have run over, etc.; and we regret to say, that their fifth Annual Report is exceedingly unsatisfactory, and tends to prove,

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most demonstrably, that the Commissioners in Lunacy are inefficient, as a collective body, to carry out the objects contemplated by the Legislature.

We arrive at this conclusion from the irrefragable evidence which is contained in their own Report. But here we must, *in limine*, protest against the undignified tone of self-complacency which is studiously adopted in all these Reports, which, after all, amount only to an *ex parte* representation made by the Commissioners themselves. Official appointments under Government carry with them, generally speaking, a tolerably handsome Government salary; therefore, the "satisfaction" which such official parties express at their own proceedings, is by no means altogether disinterested. The Commissioners in Lunacy, in this spirit, profess their "satisfaction" at a state of things which the public, we apprehend, will consider very unsatisfactory. Thus, they commence this *fifth* Report by stating, "We have now the satisfaction of reporting, that the various institutions for the insane throughout the country are in an improved state, and that the conduct of superintendents, officers, and attendants, in reference to the treatment of patients and the management of lunatic establishments, is *for the most part* humane and judicious." Why, we ask, do the Commissioners, in the plenitude of their "satisfaction," make this very unsatisfactory qualification? What! after an active surveillance exercised by them for above five years, over every house, hospital, and asylum in the kingdom, are we to be told that patients are only "*for the most part*" treated with humanity and judgment? Is this really a "satisfaction" to them? Their Report then states: "*In several instances the Visiting Commissioners and Justices have found it necessary to animadvert on the excessive use of mechanical restraint; on the neglect of cleanliness; on inadequate ventilation; on want of sufficient attendants; on improper or insufficient diet; on the dirty condition or scanty supply of bedding and clothing; on irregularities in the medical books, and other defects; and in about seventy instances these defects were deemed of sufficient importance to require the special interference of the Board, by whose direction letters were addressed to the parties inculpated, the effect of which has been, that the defects thus noticed have been wholly or partially remedied.*" Here again we stumble upon that official tone of qualifying plain matter-of-fact statements, which characterises all the Reports drawn up by the Commissioners. In the "several instances" just mentioned, we find congregated together all the worst irregularities and abuses that can possibly be conceived; yet the Commissioners in Lunacy have "the satisfaction" of being informed, that these defects are in some cases wholly, in others (in how many is left to the imagination) "*partially*" removed! Here then we have some seventy houses specified as having been guilty of "defects of so peculiar and aggravated a character" as to demand severe animadversion, and hereupon two or three of these houses are proved to have been guilty of the enormity of putting on clean sheets on "certain beds" during the day, and removing them at night. This portion of the Report is characteristic of the way in which the Commissioners in Lunacy discharge their duties. There can be no doubt that the irregularity in each of these cases called for correction; but the gravity of the censure—the judicial *brutum fulmen* fixed upon the house—appears to us quite incommensurate with the actual amount of the offence. And it is upon this point that we find fault, more especially, with the Commissioners. They attach an arbitrary and sometimes absurd importance to forms and appearances, which are of secondary consequence when contrasted with the great interests of suffering humanity. The great sheet question is discussed with unmeasured solemnity, and the guilty parties pilloried in the Report; but not a syllable is said specially applicable to any one of the "several instances" in which patients were subjected to aggravated ill-treatment,—excessive mechanical restraint,—neglect of cleanliness,—improper and insufficient food,—dirty and scanty bedding. No! These, which we should have treated as the highest misdemeanours, are passed over in a single paragraph of the Report, without fastening the obloquy upon a single house in which these enormities were committed.

With reference to those very unhappy and unprotected cases of single patients taken charge of in private houses, which houses do not by the Act require any licence, the Commissioners in Lunacy candidly acknowledge their utter incapacity to deal with the difficulty before them. The multifarious duties they state, which are imposed by the Act upon professional members of the private Committee in common with their colleagues, continue to render the general visitation of such patients, or excepting under special circumstances and for particular reasons, impracticable. They then report two painful cases of neglect, "the patients, one a lady, the other a gentleman, were found in the most destitute condition." The defective state of the law as regards the property of lunatics is a still more striking grievance; "the important subject of the protection and administration of the property and income of lunatics under certificates," (continues the Report,) "has continued to occupy much of our attention; and we have had frequent occasion to regret the very defective state of the existing law, more especially as respects the property of patients, tradesmen, and others of small means, or whose mental malady is likely to be only temporary. We earnestly hope that this subject will receive your Lordship's early consideration." With such evidence as this submitted to us by the Commissioners in Lunacy themselves we feel bound, as public journalists, to call the attention of the Government to the necessity of making a thorough revision of the laws of lunacy. The visitation of the Commissioners is, upon their own showing, inadequate to protect the interests of the lunatic.

To conclude: we again protest against the tone adopted by the Commissioners in drawing up their Report, as being likely to mislead the public, because they assume an amount of "satisfaction" denoting a good "foregone conclusion," which their own evidence does not justify. Is it not absurd to find them reporting, that they have the "satisfaction of stating, that the deaths by suicide amounted last year to only eight." "Of the suicides referred to, three males and three females were by strangulation, one male by cutting his throat, and a female by drowning. In the last-mentioned case, which occurred in the metropolitan district, the lady referred to escaped from her attendant while walking with her in the country,—secreted, and afterwards drowned herself." Alas! it must be a sorry satisfaction to the distressed relatives, to hear the Commissioners in Lunacy calculating that eight suicides out of as many as 15,000 lunatics, is nothing to be grieved at, nay, that the fact is "highly creditable to the superintendents, medical officers, and attendants of such establishments."

But here we may remark, that to the proprietors and superintendents of lunatic asylums generally, the Reports of the Commissioners in Lunacy, entered in the visitors' book as well as submitted annually to the Lord Chancellor, are always unsatisfactory and discouraging, giving them little or no credit for their exertions, and making, as in the

great "sheet question," a very marvellous fuss about an irregularity easily remedied. The Commissioners in Lunacy, in this respect, mistake their duties; they are not employed by Government to act in a pettyfogging, inquisitorial spirit, and to assume a tone of arbitrary authority over a class of educated gentlemen, who have embarked all their interest and their reputation in the establishments they may respectively conduct. They are not sent out with warrants, like a body of the detective police-force, to hunt up abuses, and then play the Dogberry in office in their own private court of justice. Their mission is, or ought to be, of a higher order. They should aim at meliorating the condition of the insane upon the broadest principles of humanity; and to this end they should co-operate and render every assistance to the proprietors of lunatic asylums. They should be looked up to and esteemed as advisers, and not regarded in the light of whispering spies and persecutors; and by acting upon this principle they will do more to improve substantially the condition of these asylums, than by all the prosecutions which they may, for their own vindication, raise in the Court of Queen's Bench. It is a significant fact, that after almost every public trial connected with the mismanagement of private or public lunatic asylums, the Commissioners in Lunacy have incurred the displeasure of the Bench.

NEW LUNATIC ASYLUM REGISTRATION OFFICE.

It will be observed, by an advertisement which appears in our columns this day, that Messrs. Lane and Lara are about to open a Registration Office, with the view of establishing a medium of communication and negotiation between the proprietors and superintendents of lunatic asylums and the friends of the insane. A *bureau* of this description has been much wanting in the Metropolis. At present, if a person unhappily, and perhaps suddenly, become afflicted with insanity, the immediate relations or guardians feel at a loss how to proceed. They know not what asylum to select, as being most suitable to the nature of the case and their own circumstances; they are not acquainted with the forms of the Acts of Parliament under which they must proceed; they have no alternative, in the midst of their affliction, excepting to wander from asylum to asylum, without guidance, and without knowing upon what principle they are about to make a selection. To meet this difficulty, Messrs. Lane and Lara propose registering in their office the prospectuses and terms of all the private lunatic asylums in the kingdom, which will be gratuitously open for reference. They will also be prepared to explain the legal forms which must be complied with, and to give every information that may be required. This is essential. The provisions of the Act 8 and 9 Vict., cap. 100, cannot be supposed to be generally known; and the result has been, that irregularities have inadvertently been committed which have brought innocently-offending parties into very serious difficulty. Everything connected with the existing law of lunacy should be understood by persons seeking its protection. Its clauses are for the most part, it is true, sheer formalities; but they must nevertheless be observed, *usque ad pedem literæ*, and it is well, therefore, that the public should know where they can obtain information on the subject.

Messrs. Lane and Lara next propose to keep a Registry of "competent superintendents, efficient medical officers and attendants, and nurses of unexceptionable character." This is one of the most important features in their plan. The Commissioners in Lunacy, some five years ago, forwarded circulars to the proprietors and superintendents of lunatic asylums, requiring them to return the names of all the male and female attendants employed by them, and to transmit all future engagements and dismissals, with the cause of such dismissal, with the view of opening themselves an office of this description. We learn, by their last Report, that the plan, as we anticipated, has failed, the Commissioners "regret to say, through the negligence of some persons and the unwillingness of others;" but we attribute the failure to other causes. The Commissioners might, we venture to affirm, have done much towards insuring a selection of good attendants and nurses in lunatic asylums, if they had not, by assuming an inquisitorial tone, placed themselves in a false position. They give no encouragement either to the superior officers or the subordinates in these establishments, therefore they do not enjoy their confidence. The result is, when they attempt to open a central register of attendants at their office in New-street, neither proprietors on the one hand, nor attendants on the other, will apply to them. Here Messrs. Lane and Lara have the advantage of taking an independent position. The extreme difficulty of finding, particularly on an emergency, eligible male and female attendants, is known to every lunatic asylum. Let Messrs. Lane and Lara register none but persons of intelligence, who are known to be of humane disposition and unquestionably good moral character, and they will be conferring a boon upon the proprietors of these establishments. The Commissioners failed, because they do not enjoy the confidence of the parties whom they invited to co-operate with them. The next striking point in Messrs. Lane and Lara's announcement is, that they address themselves to the friends of the insane, and promise to give them, on all occasions, without reservation, every information in their power, "their object being to *satisfy the public that the greatest justice and humanity will be done to all parties* introduced into asylums by their recommendation." The difficulty which the friends of the insane find in obtaining the information they desire, and ascertaining the real management and treatment of patients, secluded in what must appear to them the mysteries of a bastile, we have heard repeatedly complained of; and Messrs Lane and Lara, therefore, will do well to act on all occasions with the utmost openness and candour; and if they can only satisfy the public that the suffering and unprotected lunatic shall be treated with "the greatest justice and humanity," they will not fail to obtain the confidence they solicit.

Finally, we venture to anticipate that this Lunatic Asylum Registration Office may accomplish more than is promised in the prospectus. In the year 1847, the Commissioners calculated, upon a rough estimate, that the annual cost of private patients, at the low average of 20s. per week, amounted to 173,628*l.*, and that the income of those found lunatic by inquisition amounted annually to 280,000*l.*: making a total of 453,628*l.* When we consider that this enormous sum is expended in houses established purely by the enterprise of private individuals, it is manifest that a vast amount of private capital has been embarked in these establishments. In the metropolitan districts there were, in June, 1850, by the Commissioners' Report, 45; and in the provinces, 90: making a total of 135 private lunatic asylums in England only; and it certainly appears strange that the proprietors and superintendents do not form an association for their mutual protection. Union is strength. The Central Office of Registration now proposed may form a *point d'appui*—a nucleus round which such an association might be organized; and there can be no doubt that, aiming at higher objects than the protection of property, the conjoint labours

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of men conversant with the subject would lead to improvement in the management of lunatic asylums, and to a melioration of the general treatment and condition of the insane.

CHAIRS OF MILITARY SURGERY.

We have been much pleased to observe, from a paragraph in Saunders' "News Letter," that the opening of the Course of Lectures on Military Surgery, delivered by Mr. Tufnell, at the City of Dublin Hospital, has been honoured by the presence of His Royal Highness the Duke of Cambridge, and a large party of officers, military and medical, from the garrison of Dublin.

The countenance of such high quarters cannot fail to be encouraging to a gentleman who is labouring most assiduously in the field of military surgery, without the stimulus of a Government appointment, or of any emolument from the public.

In the recent retirement of the venerable and experienced chief of the Medical Department of the Army, we see an additional and a powerful motive for the establishment of Schools of Military Medicine and Surgery, under the authority of the Crown, in the English and Irish Metropolis. The wide and varied experience of Sir J. M'Grigor and his contemporaries is fading fast from amongst us. The choice of an eligible successor, experienced in a variety of service, with health unbroken and energies unimpaired, was necessarily limited to a select few; and we believe that the vacant office is worthily filled. A few more years, and there will be no choice left of men who have encountered the casualties of the field and the diseases of the garrison both in temperate and in tropical climes.

We ask, then, is it not of importance to the State that there should be, in each of the Metropolitan schools, a Professor, whose special province it is to treasure up and to preserve the professional experience of former wars? Is it not essential to the well-being of the soldier, that his professional attendants should be instructed in the results of that experience with which so many campaigns have enriched their predecessors? And is it not expedient, that candidates for the medical departments of the public service should be prepared, as far as possible, for those new and interesting duties which await them in joining an army in which they will soon find but few experienced hands to guide them?

It has been well said that, "in proportion as constitutional, political, or financial circumstances render it expedient to reduce the numerical force of an army during peace, it becomes the more necessary to maintain those establishments in which practical science is upheld,—science which has been acquired in a long series of arduous and expensive training in actual warfare."

THE GREAT EXHIBITION.

OBJECTS CONNECTED WITH THE THEORY AND PRACTICE OF MEDICINE AND SURGERY.

[SECOND NOTICE.]

All the objects of interest to the Medical Practitioner in the British collection are contained in the gallery, with the exception of a few enormous specimens placed in the nave. We shall commence with Class 2 of the Catalogue, under which are arranged the pharmaceutical and chemical products, of which a splendid collection is presented for inspection. Before proceeding further we may remark, in relation to the chemical products, that the collection contains many repetitions of the same substances, with not so great a variety of substances as might have been expected, and that a large number of these chemicals are, perhaps, more interesting to the manufacturer than to the Medical Practitioner.

Ascending the staircase to the south-west gallery, we find this class of the collection extending thence to the western extremity of the building. On the left, against the wall is ranged a very complete collection of the raw materials,—woods, barks, leaves, etc.; contributed, we were informed, by Bell and Company, of Oxford-street, together with some enormous specimens of drugs in the condition in which they are imported, placed on the first table; but, as no name or number is attached, we may be mistaken as to the contributor. This collection may be characterized as consisting of very fine and carefully-selected specimens of most of the drugs employed in medicine, including many rare and some new additions to the materia medica which had not previously fallen under our notice. We shall chiefly confine our observations to the rare or novel substances now presented to our examination. They are all neatly labelled with the common and scientific names of the plant, and the natural order. The first deserving of notice are cedron seeds, the produce of the Simaba cedron, belonging to the natural order Rutacea, on which we are able only to observe, that the bark and root of another species of the same genus, Simaba ferruginea, is extremely bitter, and employed in the Brazils as a remedy for dyspepsia, ague, and dropsy. The root of the Arctopus echinatus, a plant of the natural order umbellaceæ, which is impregnated with a white resin, or gum, and which, according to Thunburg, is employed in Southern Africa as a remedy for gonorrhœa. Next among the rare specimens is the extract of the seeds of the myrospermum of Sonsonate, called balsamito, and a fine specimen of the plant by which these seeds are produced is seen on the opposite table. Myrospermum is a new botanical name for the genus myoroxylon; and the species which yields the "balsamito," from Son Sonate, is as yet unnamed. The balsam itself possesses similar properties to those of the balsam of Peru.

Then follow in succession fine fruits of the Tonka bean coumarouna or dipterix odorata, which are used chiefly for their fragrant odour; sarcocol, a substance rarely employed in medicine, the source unknown; hog gum the produce of the Rhus melopium; opium from Turkey and Egypt; Siam, Sumatra, and Calcutta benzoin; the resin of the xanthorrhœa hastilis, which Merat and De Lens assert to be produced by another species, the xanthorrhœa arborea; it is of a yellow colour, and on analysis was found to consist principally of resin, a small proportion of gum, benzoic acid, and volatile oil, so that it should rather be classed with the balsams than the resins. It has been employed in diarrhœa, dysentery, and some stomach affections. Specimens of scammony in its pure state, and adulterated with chalk and starch, with starch and dextrine, and with starch alone, are exhibited. The betel nut of India, the produce of the arecha catechu, so much employed as a substitute for tobacco in chewing by the natives, is said, by Lindley, to possess narcotic and intoxicating properties. The nut, about the size of an almond, is cut in slices with the leaves of piper betel and some quicklime. The practice of chewing the betel destroys the teeth, and sometimes deranges digestion, although those who practice this habit, assert that it facilitates digestion, and supports the strength of the body, so liable to depression by excessive perspirations in tropical regions.

The St. Ignatius bean, the produce of the Strychnos Ignatia, is of importance, as a source from which strychnia is

obtained. Specimens of the tops of the Indian hemp, known for its intoxicating powers, derived from the same plant, cannabis sativa, as the common hemp of our own country; the difference of the medical properties depending in this, as in many other instances, on the heat of the climate in which the plant is cultivated. Fine specimens, both of the summits of the plant and the extract, are among the objects here collected. The crotaceous series, including the chalks, crab's eyes, crab's claws, in their prepared state, also contains specimens of seed-pearls, and the cretaceous powder prepared from them, to which peculiar properties are attached by the Chinese. In addition to fine clear specimens of the cantharis, a beetle of another genus also employed as a vesicatory in India, is shown. This species of the genus mylabris is larger than the cantharis, more squared in form, and of a brown colour, with black spots. The seeds of the strychnos potatorum, exhibited under the name of "Nirmalis' Seeds," are said, by Merat and De Lens, to be employed for a curious purpose in India. These bitter seeds are used to purify water, and for this purpose the natives rub the edges of the vessels in which the water is about to be placed with one of these nuts; the water deposits its impurities, becomes clear, and acquires a slight bitter flavour. The varieties of cinnamon, and a fine series of nutmegs, those from Penang and Batavia derived from the myristica fragrans, those from the myristica officinalis of the pharmacopœias being termed wild nutmegs. Mace is also exhibited from the same sources. A considerable collection of almonds, cloves, and ginger show the variations which are caused by the localities in which the plants are grown, as well, perhaps, as varieties of the plant itself.

Specimens of genuine and commercial calamine come next, the former both in lump and powder; differing from the ordinary calamine of the shops in being of a light drab colour, while the common powder has a reddish-brown tinge. A series of specimens of common salt, in different states, among which are some fine but, as usual, imperfect cubes. The cassava root, produced by the janipha Loef lingii, formerly ascribed to the jatropha Mahinot, an euphorbiaceous plant, possesses the singular property of containing a highly poisonous juice of a volatile character, somewhat resembling, in this respect, our own arum maculatum, which is dissipated by heat, or even by exposure to the air and drying. The distilled water is so extremely poisonous that thirty-six drops sufficed to cause death in ten minutes. After the dissipation of the poisonous principle, the root itself forms a very agreeable and nutritious food. There is another variety of the same plant which produces innocuous tubers as the result of long-continued cultivation. The next specimen, worthy of especial remark, is the recently imported herb the Brayera anthelmintica or kousso, now very successfully used as a vermifuge in cases of tænia, which resist our older anthelmintics. Several specimens are shown on one of the tables, to which we shall direct attention as we proceed. A herb labelled Patchouli or Putna pat, is also exhibited, which is described in books as an Indian plant of the order Labiaceæ, having a strong aromatic odour analogous to that of chenopodium anthelminticum, with oval denticulated leaves. The only use we have discovered for it is, that of driving away insect vermin, to which most strong odours are disagreeable. Matico is also here shown, but much finer specimens will be adverted to hereafter. Three kinds of buchu leaves are the produce of different species of barosma; those of a linear-lanceolate form are attributed to barosma latifolia, large-leaved, or ovate-oblong, to B. crenulata; and the short-leaved, or ovate and obovate, to B. crenata. The vaunted Chinese medicine, which these superstitious people believe to be capable of restoring youth, the root of the Panax quinquefolia, or geiseng, is also here. Then follow the algæ, employed either as food or medicine, among which are the chondrus crispus, or Irish moss; the Corsican moss, Gigartina helminthocorton; and the Iceland moss, and a lichen, the cetraria islandica. The fruits of the common capsicum, C. annuum, which, when ground, are used as Cayenne pepper are here called Chilies; while the small fruits usually known as Chilies in England, are designated as Guinea pepper, the produce of capsicum fastigiatum. The Ceylon cardamoms, the pods of which are larger, longer, and browner than those of the officinal plant, are attributed to the eletteria major, while the officinal seeds are the produce of the eletteria cardamomum. Several rare species of cinchona, the origin of which is unknown, are here designated as the loxa bark, the ashy crown bark, and crown bark. Another, the produce of the cinchona ovata, is known as ash or Jaen bark. Specimens, also, are shown of the stem and root bark of the mezereon (daphne mezereum) and of white and red sandal woods. The former the produce of the Sirium myrtifolium, comes from Malacca, Siam, Chili, and other countries. It has a slightly bitter taste, arising from a resinous principle and volatile oil. It is said to be used both as a perfume, and also in medicine as a sudorific and stimulant; the latter, the produce of the pterocarpus santolinus, is well known in English pharmacy, for the purpose of colouring the compound tincture of lavender, rather than for any remedial power. Two specimens, one of the Calumba root, the cocculus palmatus; the other of the Calumba wood, from the menispermum fenestratum, so much resemble each other as to be easily confounded until after careful inspection: the latter is considered by the natives of India as an excellent bitter tonic. Mudar, the root of the plant formerly known as asclepias, but now as calotropis gigantea, is an active medicine, which has, according to Anslie, a bitter, acrid taste, is used as a stimulant in fevers, as an anti-spasmodic, and by the native practitioners as a purgative. It has been employed in a long list of the most formidable diseases by Playfair; and Robinson has vaunted its power as a stimulant and sudorific in the syphilis and elephantiasis of Hindostan. English and Russian crown rhubarb also find here a place,—the former probably as a specimen of the adulterations so much practised among drugs. Varieties of senna produced by different species, are also exhibited. The Tinnevelly senna, the leaves of the cassia elongata; the Tripoli senna, from cassia Æthiopica; the Alexandrian, from cassia acutifolia; and the East Indian from cassia elongata.

Such are the contents of this very beautiful collection of drugs, in which many new and rare specimens are exhibited, while only comparatively few of the more valuable portions of the older Materia Medica are omitted. The specimens are so numerous, that to have written a complete notice of them would have involved us in the task of compiling a complete course of materia medica, which was not our object. As it is, we fear that our readers will think our notice tediously lengthy.

On shelves next to the collection we have already noticed, are specimens of dried pharmaceutical indigenous plants and extracts exhibited by Mr. Kent, of Slaunton, near Bury St. Edmunds, (Class II, No. 94, of the Catalogue). The leaves and roots are beautifully dried, the former retaining almost their pristine colour; but, as

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many are placed in light green glass bottles, the colour of the vessel adds somewhat to their appearance. Some of them, the leaves of digitalis, aconite, hyosciamus, belladonna, chironea, centaureum, wormwood, helleborus viridis, and lactuca virosa; the roots of aconite and taraxicum; the petals of papaver Rhœas, and rosa gallica; the tops of dulcamara and the poppy-heads, are valuable in medicine, while, in addition to them, are elder, coltsfoot, and other flowers and herbs now classed among old-wives' medicines.

On the first table are heaped enormous specimens of drugs, many of them in the very packages in which they are imported. The first of these that attracted our attention was a skin package of very fine quilled cinchona lancifolia. Near this lies a transverse section of the trunk of the officinal guaiacum wood, more than a foot in diameter. A large bundle of sarsaparilla, with small bundles lying on it, exhibiting the varieties of sarsaparilla derived from different sources. The Lisbon sarsaparilla is obtained from an undetermined species of smilax; that from Vera Cruz, from the smilax medica; two specimens of Jamaica root, varying much in colour, are attributed to the smilax officinalis; the Honduras drug is from an unknown species; and, lastly, the Italian, from the smilax aspera, or hemidesmus medicus. A very large mass of benzoin, showing the whitish and reddish spots scattered through it; a positive pillar of guaiacum resin, and specimens of Barbadoes aloes in the gourd, and Socotrine and Cape aloes, showing the peculiar characteristics of each. A branch of the dracæna draco, and its product, dragon's blood; fine specimens of the fruits of cassia fistula, of cinnamon and canella alla lie on the table. Mr. Bell also exhibits fine specimens of the root of the gentiana chrayita, or, as it is now named, ophelia chirata, called cheretta in India, where it is employed by the natives as a febrifuge, tonic, and stomachic. It equals in bitterness the ordinary gentian-root. This, and a specimen of rhatany-root are placed under glass shades.

We have not completed our first division of the materials of remedial art; but, as this notice is rather long, we shall defer our further remarks until next week.

KÖLLIKER'S LETTERS FROM ENGLAND.

[The following letters by Professor Kölliker, of Würzburg, the distinguished physiologist, are part of a series of communications addressed during a journey through Holland and England, to his friend Dr. von Siebold, and lately published in the journal of which he is editor. The views of one so eminent cannot fail to be of great interest, and they are not likely to prove the less palatable from an evident partiality which the Author exhibits towards our country.—*Ed. Med. Times.*]

Edinburgh, Oct. 5, 1850.

I did not remain longer in London than was necessary to transact some urgent business, but set out for Edinburgh shortly after my arrival from Holland, in order to enjoy the last fine days of autumn in the Highlands. We were partly successful in this, for we saw the celebrated Loch Lomond and Loch Tay, and the west coast of the Southern Shetland Isles in the most favourable light. The scenery did not, however, inspire us with the same enthusiasm with which the numerous English tourists admired it. This portion of our journey presented few points of scientific interest; for even the famed basaltic island of Staffa, and the island of Iona or Icolmkill, which is remarkable on account of its ancient Christian monuments, were to us only objects of admiration, and not of research. I may, however, observe, that the west coast of Scotland is very rich in marine specimens of natural history, as the researches of Forbes and Goodsir have shown; it would probably be well worth while to pass some time at a place like Oban. Had I arrived sooner in Scotland, I might have joined in the naturalist expedition which visited these coasts, and was undertaken during the present autumn by Forbes and Goodsir, in the yacht of a wealthy merchant of Liverpool, of the name of MacAndrew, who is an enthusiastic amateur of the natural sciences. My mouth watered as Goodsir spoke of the adventures of the voyage, and told me of the numerous rare animals brought up by the drag-net. He exhibited them to me, and I was fortunate enough to acquire a rare specimen, a *pavonaria quadrangularis*, which has hitherto, probably, not been found in any collection in Germany. I also obtained a rigid polypus of above three inches in length, and the small four-cornered box in which I carried it in my hand all the way to Würzburg, excited the curiosity of all my travelling companions, who were very inquisitive as to its probable contents.

On our return to Edinburgh from the tour in Scotland, which took us as far as Fort William, the Caledonian Canal, and Inverness, we spent ten entire days under the hospitable roof of John Goodsir. We thus enjoyed the most favourable opportunity of becoming acquainted with the proceedings of an English anatomist. John Goodsir is, of three brothers who have devoted themselves to the study of the natural sciences, the one best known among ourselves. His treatises on the Development of the Teeth, on the Glands, on Sarcina, though not read by everybody, are universally spoken of. Formerly Conservator of the Museum of the College of Surgeons in Edinburgh, he has for some years past occupied the Chair of Anatomy in the University, a position which this modest and active gentleman fills to the satisfaction of all who are acquainted with him. As the University contains between 400 and 500 medical students, and about 200 to 300 attend the anatomical course, the leisure hours of the Professor of Anatomy cannot be very numerous; but Professor Goodsir has devoted what spare time he has to comparative anatomy and to the Anatomical Museum. Most of the preparations contained in the latter have been put up by him; some beautiful injections of myxinæ, cephalopoda, radiata and mollusca, and other inhabitants of the Scottish seas, particularly attracted my attention. There are also fine preparations demonstrating the development of the teeth; and others of the electric organs, of which that belonging to the common ray was first accurately described by Goodsir, after it had been superficially noticed by Stark, but before Robin's description was published. Unfortunately, Goodsir is in practice as a surgeon, and is thus prevented from prosecuting his scientific researches as he otherwise would do; still, he has this year found time to edit a physiological and anatomical journal, which deserves the cordial sympathies of all who are interested in the progress of medicine in England. It is the first periodical of the kind published in England, and it is very doubtful whether Goodsir will meet with the necessary support and countenance. You must know, that the English medical man is essentially a practitioner of medicine; anything of a theoretical tendency is held in but secondary estimation. This may be owing to the fact, that the English are especially devoted to action; but the main cause of the circumstance undoubtedly is the fact, that science is not estimated by the nation as it deserves, nor rewarded by Government so as to enable the man who devotes himself to scientific pursuits to live without care for the means of subsistence. Necessity knows no law; I can, therefore, understand how men inspired with the true spirit of science, such as Todd, Bowman, Paget, Simon, and others, as well as older celebrities, as Hunter, Bell, and A. Cooper, could continue in practice, and even after a time devote themselves exclusively to it; I can easily understand, too, how many look upon theoretic studies merely as a stepping-stone to reputation, to the Fellowship of a society, and finally to practice. Practice in England certainly deserves the epithet *aurea*, and the position acquired by its means certainly exhibits a strong contrast with that of a Professor. I am only acquainted with three anatomists and physiologists in England who do not attend to practice—Owen, Sharpey, and Grant: and of these Owen alone occupies a place according with his merits. Narrow circumstances are not the cause of Goodsir's following his surgical practice; but he does it from the conviction that a good anatomist should not be a stranger to the healing art,—a sentiment adopted by very few in Germany; to which fact it

is to be ascribed that surgical anatomy is at so low an ebb with us.

Of the collections superintended by Goodsir, the one of the lower orders of marine animals is remarkable. It almost owes its existence to his persevering research, and serves to give a distinct illustration of the wealth of the Scotch coast. We here meet with many an animal which has not yet been described, or is but little known, and is waiting for the patron by whom it is to be introduced to the world of science. Others are deposited which only serve to corroborate what is already known. There are many specimens that have been formerly collected by Harry Goodsir, especially small crustaceans, and others that have been received from this talented and zealous young man from the Arctic regions. More than five years ago Harry Goodsir sailed for the Arctic regions with Franklin, and may have paid the penalty of his enterprising research and his scientific zeal with a melancholy end. The expedition which left in 1845, and which is unanimously condemned throughout England as perfectly useless, is well known to have been supplied with provisions for three years. These were very abundant; but even assuming the possibility of their having sufficed for four years, it is evident that Franklin and his companions must already, for more than a year, have been dependent upon the precarious subsistence to be obtained by fishing or shooting. I was surprised to find that hopes are still entertained in England of recovering the lost crews, and still more so, that J. Goodsir and one of his brothers, a clergyman, yield to them, especially after I ascertained that the youngest brother, also a naturalist, was in one of the ships sent out in search of Franklin by the British Government in 1849. Imagine the position of these brothers, and especially of the youngest, who, while battling with the elements in inhospitable regions at the peril of his life, may anticipate the most delightful re-union, or a discovery of the most painful description. It is enough to excite sympathy in the ultimate fate of this family in the coldest heart.

The dissecting-room does not occupy a separate building at Edinburgh; it forms a part of the large quadrangular College which contains all the University offices. Each Professor is provided with his own lecture-room, rooms for collections, work-room, and other offices. This arrangement is excellent, and prevents many of those inconveniences which frequently cause bickerings among the Professors of a German University. We visited the library, the zoological collection, which is far from complete, a fine collection illustrative of agriculture, which is acknowledged to be in an advanced condition in Scotland, and Simpson's Embryological Museum. We only took a glance at the latter, but I noticed some casts, representing stumps of embryos after spontaneous amputation, on which Simpson stated that nails and digital rudiments had formed again. Simpson asserts that he has seen numerous cases of this kind, and he showed me a preparation in spirits, which appeared perfectly convincing. I am, however, inclined to class these cases with those which are already known of an abnormal production of nails; for I was unable to discover any trace of fingers, the nails being firmly inserted into the skin upon the most minute projections. Simpson also exhibited to us a case of unusually thickened amnios, which had evidently impeded the development of the fœtus, and finally enclosed all its parts firmly, so that the extremities and the head seemed encased in tight gloves, and at first sight presented a most anomalous appearance. The lecture-rooms in the College are all very well arranged; the anatomical theatre, according to the prevailing custom in England, is a steep amphitheatre with a skylight, and superior to any German one that I am acquainted with. It appears to me that in this point the British have the advantage over the German Universities generally. The method of teaching is much the same as with us, except that throughout England, so-called diagrams, *i. e.* colossal plans on paper or canvass, are looked upon as indispensable. They are undoubtedly a convenience to the Professor, but they would seem to render it difficult for the learner accurately to comprehend what they are intended to convey. The system pursued with us of making the drawing during the lecture is preferable, as it renders the arrangement and relation of the parts more intelligible.

We saw several other distinguished men and institutions in Edinburgh besides Goodsir and the College. In the Hospital, we admired less the safety than the calmness and elegance with which Syme operates; the former quality may be found among ourselves, but less of the latter; and, I confess, I wished that some of our surgeons who are in the habit of tucking up their sleeves and donning a large apron before commencing an operation, had been spectators. Christison has charge of the medical department, and does honour to the great name he possesses in Germany; his private character is very estimable, and he and Simpson are probably the favourite physicians of Edinburgh. The latter lives solely in and for his Profession, and may be considered as by far the most eminent gynæcologist of Great Britain; he scarcely has his equal elsewhere, and there certainly is none to surpass him. His fund of experience is very extensive, and his therapeutics display much originality; these, however, are points which I, not being a practitioner myself, am less able to judge of. His strongest claims upon my esteem are his philosophic spirit, and his desire to ground his treatment upon a physiological basis. At the time of our visit, Simpson was engaged in investigating the relations of the nervous system to the contractions of the uterus. In order to solve the difficulties, he had, shortly before, performed two kinds of experiments upon animals, (among others, upon pigs.) Immediately before the occurrence of parturition, he, in the one series, destroyed the lower half of the spinal cord; in the other, he divided the communicating branch of the sympathetic in the abdominal cavity. The experiments are to be published in detail when completed; but I may state, that the conclusions arrived at at present are, that the act of parturition proceeds independently of the spinal cord. Simpson was also actively engaged in a question which is just now much agitated in England, in part from party reasons, as to who is the real discoverer of reflex action. It appears that Marshall Hall does not possess the talent of making friends, and so, to detract from his merits, it has been ascertained that Unzer and Prochaska possessed some knowledge of the reflex theory; there is even an English translation of Unzer's work in progress! It is a pity that our good countryman cannot be informed of the honours he is now reaping.

Among the scientific institutions, I have also to mention the College of Surgeons, with its rich pathological and comparative anatomical collection; the College of Physicians, with its superbly stored library; the fine halls for the meetings of the members, and a collection of drugs; the Botanical, Zoological, and Agricultural Gardens. I am unable to give you a detailed account of these institutions; I will rather relate the particulars of two scientific expeditions which we undertook from Edinburgh. One was directed to the famed island of birds, the Bass Rock; the other was to the Firth of Forth, to fish with the drag-net. The Bass is an isolated rock, of about two miles and a half in circumference, and 150 to 200 feet in height, at a distance of twenty miles from Edinburgh, near North Berwick, and at the mouth of the Firth; it rises precipitously from the sea, and has been known from olden times by the number of Solan geese *(Sula alba)* that roost upon it. The London and Edinburgh Railway passes close to the coast; it was, therefore, an easy matter to make the excursion without much loss of time; we seized the opportunity of being present at the opening of a few ancient tumuli in the vicinity of the coast, in which we found skeletons in a tolerable state of preservation. The passage by sea, which we undertook alone, very nearly promoted Czermak and myself to an extempore bath, for a brisk breeze tossed our nutshell of a boat rather violently; however, we gained the rock in safety. Though the breeding-time was long over, it was densely covered with birds, so that the rock, either from the animals or from the accumulated excrements of centuries, form native guano, were perfectly white, and at a distance looked as if covered with snow. While making the circuit of the island we had an excellent opportunity of observing the birds that roosted upon every minute projection, and were scanning the sea like outposts; we also enjoyed the elegant flight of innumerable hosts of startled animals, and much desired to mount to the summit and examine the nests more closely, and, if possible, to catch some of the belated young. Unfortunately, we found the access impeded by a door, and an essay made in the morning to obtain the key from a farmer residing at Camtybay, a small coast town, had entirely failed, simply because it was Sunday. The refusal was given in a manner which did not much savour of the character of the day. Thus we were very reluctantly compelled to content ourselves with landing on a small promontory at the western side of the island; and, as

it appeared, we had to congratulate ourselves upon even having met with sailors who did not scruple to take us there on a Sunday. We met with nothing of any consequence on our return, excepting that at the village of White Chapel, while inspecting the small Gothic church, we were unexpectedly reminded of the former condition of anatomical studies in England. In the churchyard we found several enormous iron railings in the shape of coffins without lids. On inquiry we were informed that these masses, which could scarcely be lifted by twelve men, were called *safes*, (from *safe*, secure,) and had been formerly used to protect the newly-interred coffins against the resurrectionists. That such means were required in a remote village, at a distance of 20 miles from Edinburgh, is only intelligible to those who know that, during the past century, nothing was done by the English Government for the anatomical instruction of medical men; this want gradually induced men of science to adopt means of obtaining subjects for dissection which were not quite consonant with strict morality. This gave rise to the so-called resurrectionists, who made a regular business of plundering the churchyards under the cover of night, to dispose of the corpses in the dissecting-rooms. The system gradually rose to such a pitch as to become notorious, and to be silently connived at by the authorities; the proceedings of the resurrectionists might, at last, have been tacitly sanctioned as an unavoidable evil, had not their audacity, at the commencement of the present century, exceeded all bounds, and excited public clamour against them. The people began to protect their churchyards by safes and watchmen, and at last the Government was forced to interfere and put an interdict upon the resurrection-men. But, while omitting to secure the necessary provision for medical instruction, the Government gave rise to an evil of still greater magnitude, and called Burke and his associates into existence. Subjects gradually became so scarce, that the Medical Schools and young physicians paid as much as twenty and thirty pounds for them—a price which served as an inducement to crime. Thus it happened, that between 1820 and 1830, a villainous trade was commenced by Burke in Edinburgh, and subsequently plied in London and Dublin, which consisted in murdering people by applying a pitch plaster to their face, and selling the corpses as belonging to poor people who had died a natural death. The tragedy was terminated by the execution of Burke, whose skeleton may be seen in the Anatomical Museum at Edinburgh; and at the same time the evils which had given rise to it were set aside.

As the innocent solan goose has led me to digress to Burke, I do not pledge myself to avoid a similar vagary in speaking of our dredging party. The dredge has become an indispensable instrument for zootomists, since it has afforded E. Forbes splendid results in the Ægean sea, and Milne Edwards on the coasts of Sicily. We were therefore much gratified by Goodsir's kindness in presenting us with an opportunity of trying it. The drag-net is nothing more than a fine oyster-dredge. It is used like this instrument, and requires a strong-built boat and a moderate wind to carry the instrument, which is attached to the boat, with a certain force over the bottom of the sea. On a fine morning we drove down to Newhaven, where the boat was in readiness for us. I was astonished at the number of marina animals scattered over the beach, which the fishermen had rejected as useless acquisitions. My surprise increased as the produce of about twenty hauls made in the neighbourhood of the island of Inchkeith gradually accumulated before our eyes. The Scotch seas are, in fact, much richer than is supposed by those who, like myself, have examined the German coasts of the German Ocean at Heligoland and Föhr. The rocky nature of the shores probably accounts for this circumstance. In one morning we secured a sufficient number of animals to fill a good-sized tin case. There were many specimens of radiata, (austerias aurantiaca, solaster papposus, asterocanthon glaciale, two varieties of echinus, an ophiura,) a variety of molluscs, (phallusiæ, cardium, buccinum, pecten, venus, melibœa,) annelidæ, (pontobdella, amphitrite, eunice, aphrodite, hermione,) and polypi, (virgularia, antennaria, tubularia, lobularia.) I must observe, that the process is one rendering special accoutrement absolutely necessary; for in the vicinity of Edinburgh the Firth of Forth has a soft, muddy bottom, and the dredge brings up quantities of black soil, empty oyster-shells, potsherds, bits of iron, etc., with the desired rarities, so as to impair the poetical character of the undertaking. It must be very different when the bottom, and the water itself, are clean; in this case, I imagine the water-telescope, which has hitherto only been used by fishermen, might prove of use.

We visited Glasgow after leaving Edinburgh, but only remained one day, as the colossal filth and wretchedness of the town made us feel quite uncomfortable. As it was the period of the vacations, we only visited the Hunterian Museum and Allan Thomson, the Professor of Anatomy, who was good enough to come from the country to see us. Thomson is a clever, well-informed man, in the prime of life, and well versed in German literature. You are acquainted with his comparative anatomical and physiological labours. I will, therefore, merely state, that, in his private museum, I found some interesting preparations, such as two twin malformations of the embryo chick, one of the first, and another of the third day; there were also some very young ray embryos, with pectoral fins and external branchiæ just budding forth, canine ovæ, with furrows, sheep embryos, with the allantois just forming, and without the same; there was a case in which the vena cava inferior opened into the vena azygos in the abdomen, and the venæ hepaticæ discharged directly into the heart, and one in which the large coronary vein was inserted into the left ventricle. Thomson also preserves two cysticerci, which were removed from the anterior chamber of two individuals, and he and his demonstrator showed us drawings, proving that, without any knowledge of your observations, they had observed the correspondence between the cysticercus of the mouse, and the tænia of the cat. There is not much to be said in praise of the anatomical theatre in which Thomson lectures; the same remark applies to John Hunter's (*sic*) Museum, which scarcely justifies its high reputation. The anatomical section is contained in perfectly obscure rooms, and presents an aspect of complete neglect. Among the 2900 pathological preparations, which are accurately enumerated in the catalogue, there may be many valuable specimens; but, as in all English collections which I have seen, the jars are permanently closed; they have not seen the light for many years, and are partly spoiled, or partly put up in an old fashioned manner. What most interested me were the preparations of the gravid uterus, and the original drawings of Hunter, contained in the museum library. I was not a little surprised when Thomson showed me a preparation by Hunter, of the pacinian corpuscles in the mesentery of the cat, which, in the catalogue, are dubiously enumerated as lymphatic glands. In the library there are also the original drawings to accompany Vesalius's work on the bones and muscles, and an unpublished work by Douglas on the bones, with very beautiful plates; in the latter I was especially struck with the accurate representations of the epiphyses and of sections of the tarsus. There are two medical colleges, in which from 200 to 230 students receive instruction; the hospital, which we also visited, is large and well arranged; the large rooms devoted to cadaveric inspection and to pathological anatomy, deserve an especial mention."

[To be continued.]

REVIEWS AND BIBLIOGRAPHICAL NOTICES.

Urinary Deposits; their Diagnosis, Pathology, and Therapeutical Indications. By Golding Bird, A.M., M.D., F.R.S., F.L.S. Assistant-Physician to Guy's Hospital, &c., &c. 3rd edition. Pp. 415. London, 1851.

A book that has passed into a third edition must have answered a want in the Profession. Chemistry, and especially animal chemistry, is advancing daily with rapid strides; the knowledge of yesterday is the ignorance of to-day. It is, then, with considerable pleasure that we see a new edition of this useful book.

"Another edition of this work" says Dr. Golding Bird, "having been called for, (the last having been out of print for nearly a year) I have endeavoured to amend and improve it as far as my more extended experience has permitted. Anxious not to increase its bulk, I have re-written rather than added."

Every page has evidently undergone careful revision; here exploded theories, and disproved facts so-called, are expunged; and there the most recent information is either incorporated with pre-existing paragraphs, or inserted under new heads. In illustration of the general superiority of this over the former editions, we may mention, that while the

first contained only thirty-one woodcuts, and the second forty-six, the present is embellished with sixty. While 118 works were referred to in the first edition, 152 are quoted in the third; and although the engravings, the type, and general getting up of the former editions were unexceptionable, the present is superior even in those respects.

In the second chapter, in addition to the modification of many paragraphs, about ten pages of new matter are introduced, for the purpose of considering creatine, creatinine, inosinic acid, inosite, &c., as well as the controversy between Liebig and Mulder on the existence of protein. But the greatest alteration effected is in the chapter on Oxaluria, an analysis of which we subjoin.

"I am now," says Dr. Bird, "particularly anxious to allude to the importance of carefully studying the relations of this form of deposit to certain states of health, because it seems to run some risk of being tossed aside as a thing of no consequence."

After remarking that oxalate of lime is of far more frequent occurrence, at least among the inhabitants of the metropolis, than the deposits of the earthy phosphates, Dr. Bird observes, that it may often be detected in the urine of those free from any apparent disease, and consequently that it must be regarded as one of the common results of metamorphosis of tissue; but he adds, this trace is a very different thing from its presence in large crystals, and in considerable quantities, which is strictly pathological.

Diagnosis and Microscopic Characters of Oxalate and Oxalurate of Lime.—The ordinary form of the oxalate of lime is the octahedron. If the light is very bright, these crystals resemble cubes marked with a cross. Sometimes the oxalate is in the form of exceedingly minute crystals adhering closely together; more rarely, oxalate of lime assumes the form of a square prism with a four-sided pyramid at each end. Whatever shape it assumes, the salt never forms a distinct deposit, but is diffused pretty uniformly through the urine. Occasionally not a trace of oxalate of lime is to be found in recently-voided urine, which, after twelve hours' repose, contains an abundance of large crystals.

Crystals of oxalate of lime are unaltered by boiling, either in acetic acid, or in solution of potass. In nitric acid they readily dissolve without effervesence.

The dumb-bells and oval crystals, heretofore described by Dr. Bird as oxalate of lime, he is now inclined to regard as consisting of oxalurate of lime. His reasons for regarding them as oxalurate of lime are their powerful action on polarised light, their complete resemblance in crystalline form with oxalurate of ammonia, and an analysis of some passed in large quantities by a gentleman who had been under the care of Dr. Prout, by which analysis the fact of their containing lime was unequivocally proved.

Characters of Urine containing the Oxalate and Oxalurate (?) of Lime.—Ordinarily bright amber, and without sediment, occasionally urine containing the oxalates lets fall a deposit of urate of ammonia. The quantity of urine passed in the twenty-four hours is about natural, and its acidity well marked; an excess of urea is not unfrequently present.

Complications of the Oxalate of Lime with other Deposits.—Uric acid crystals are occasionally found mixed with those of oxalate of lime; more frequently as the latter disappear, the former replace them. A deposit of the phosphates is rarely observed with the oxalate of lime. An excess of urea is almost invariably present in the urine. One very constant phenomenon is observed in the microscopic examination of oxalic urine, viz., the presence of a very large quantity of epithelium. Sometimes the epithelial scales form a white deposit.

Pathological Origin of Oxalate of Lime.—Reasoning *à priori*, a close connexion would be supposed to exist between the occurrence of sugar and oxalate of lime in the urine; but experience is here opposed to theory. The primary cause of oxaluria is to be referred to an unhealthy condition of the digestive and assimilative functions. The existence of oxalic acid in the blood, Dr. Bird thinks unequivocally proved by the experiments of Dr. Garrod. On the whole, our author regards oxaluria as a form of what Dr. Willis termed azoturia, and traces the origin of the oxalate of lime to changes in nitrogenised food, or to an abnormal destructive assimilation of effete tissues. It is important to bear in mind that oxalate, or rather, the oxalic acid of the oxalate of lime, may be derived directly from the food.

Symptoms accompanying the Secretion of Oxalic Acid.—A. Oxaluria, with excess of urea, and extractive matter in the urine.

The spirits in this form of disease are generally remarkably depressed, the aspect melancholy, the face dark and dingy; emaciation is generally marked; hypochondriasis and a painful susceptibility to external impressions are often present to an extreme degree. The temper is irritable and excitable, and in men the sexual power is generally deficient, and often absent; there is a sense of weight across the loins, and some irritability of the bladder; dyspeptic symptoms are always complained of. An eruption of boils is a frequent concomitant of this form of oxaluria.

B. Oxaluria unattended by excess of urea or extractive matter.

"In these cases," says Dr. Bird, "the oxalate of lime is generally merely one of a series of symptoms developed under the influence of diseases which interfere with the assimilative functions;" *e. g.*, in acute rheumatism the deposits of urate of ammonia are rarely free from crystals of the oxalate. In chronic affections of the air passages, as bronchitis and emphysema, oxalate of lime has been abundantly met with in the urine.

Whatever interferes materially with the due performance of the digestive functions, as mental anxiety, over lactation, venereal excesses, or intemperance, may give rise to oxaluria.

Therapeutical Indications.—Few cases resist treatment. The general health must first be attended to; hygienic and dietetic rules strictly enforced. The surface should be protected by warm clothing; the food consist of about equal proportions of animal and vegetable substances. The drink should consist of water, beer and wine being excluded; a very small quantity of brandy in a glass of water has generally appeared to be the most congenial beverage at the meals. Nitric, or nitro-hydrochloric acid in small doses may be given in a vegetable bitter. The mode of preparing the nitro-hydrochloric acid is, Dr. Bird says, important,—a mixture of one part nitric, and two or three of hydrochloric acid should be set aside for a few minutes before being diluted for administration. Sulphate of zinc is useful in cases in which great nervous irritability exists. The shower bath is useful; and, when anæmia is present, small doses of iron may be given with advantage. In obstinate cases, colchicum has proved useful in Dr. Bird's hands. This chapter is illustrated by eight cases of the disease in question.

We need scarcely say that this work, as now revised, will be found a most valuable addition to the library of all who would be *au courant*, practically and theoretically, with the subject on which it treats.

Observations Relating to the Science and Art of Medicine. By Wm. Wegg, M.D. Pp. 232. London, 1851.

It would be difficult to find, in the present wide range of medical literature, a more common-place book than this, or, to speak more particularly, to find a more unoriginal series of essays subservient to but one idea beyond that of book-making. This idea is, that the vascular and nervous systems are entirely subsidiary in importance to the formative tissues, *i.e.*, the general tissue of the body, in which the author conceives the active force, the real and essential vital power, is seated, and the exciting and operative principle of which he calls organic energy. He finds at once the evidence and efficacy of this energy in the fact, that it holds in abeyance for the time the ordinary laws of chemical affinity in the instances of collections of fluid, serum and pus, in the pleura or peritoneum, of the contents of the alimentary canal and bronchial ramifications, in which cases mere contact only with the vital solids suffices to prevent decomposition. It is on these formative tissues, but chiefly on this organic energy, modifying it in function without producing material change, that medicines exert their influence; and in illustration thereof we have a series of papers on remedies in general,—bloodletting, mercury, iodine, antimony, arsenic, iron, colchicum, opium, hydrocyanic acid, stramonium, strychnia, quinine, the alimentary canal, and support. The paper on venesection opens with a "brief" view of inflammation, which proves to be long

and tedious, without containing a single novel observation or experiment. The author observes of mercury, that it has no specific power on the liver and salivary glands; but its action is more manifest in them, because they contain a greater abundance of formative tissue, on the organic energy of the cell-like corpuscles of which the mineral acts: and whether the liver be torpid, congested, or in a condition of anæmia,—whether its action requires stimulation, correction, or repression, mercury is given, and with success.

Speaking of antimony in certain states of the brain and nervous system, the author asserts that "its great value exists in cases in which there is much nervous excitement, sleeplessness, delirium, rapid pulse, but considerable depression of the vital powers withal; as muscular tremor, brown and dry tongue, and feebleness of pulse denote. In such cases, where there is much excitement, but not the excitement of power, the calm that succeeds the use of antimony is very well marked." We certainly should expect, after the administration of antimony in such a case, a well-marked calm to ensue, one from which the patient would hardly recover; and we cannot help thinking that a liberal exhibition of wine and beef-tea would be more orthodox treatment. Again, in that condition of system arising from punctured dissecting wounds, our Author proceeds:—

"The most prominent symptoms are those referrible to the nervous system; yet the excitement of the circulatory system is extreme, and the two go on in a hurried course till life is extinct. Now, in such a case, something is needed which shall calm but not embarrass, which shall allay the excitement, but not depress the vital powers, so that they fail to rally; and this antimony can effect, for, however much it may diminish inordinate action, it does not readily extinguish life by fatally depressing its powers."

Opinions differ, but to such a treatment we must demur. We know the efficacy of antimony, in combination with opium, camphor, wine, etc.; but to the use of antimony alone we peremptorily object, and we are incredulous as to the capability the mineral in question possesses for fulfilling the above indications in the peculiar condition of system in question.

The paper on Arsenic is singularly barren, and the author believes the arsenite of potash is the only form of it ever exhibited. The administration of solid arsenic in certain cases is to him an unknown method, and de Valengin's solution a mystery or a myth.

The papers on Iron and Colchicum are simply a waste of paper and printers' ink.

Under the article Opium, we find some sensible, indeed valuable observations; but they are not new, and we can excuse their enunciation on the ground of their importance, and refer our readers for their fuller exposition to "Graves's Clinical Medicine."

Papers could not be written more devoid of originality than those on Hydrocyanic Acid, Strychnine, and Stramonium. Those on Quinine and Support are the best in this very ordinary book.

Elementary Anatomy and Physiology for Schools and Private Instruction. By William Lovett. Illustrated with Ten Coloured Plates. London. 1851. 8vo.

Mr. Lovett is not a medical man; he is engaged in teaching; his classes consist of children from nine to fourteen years of age, and it is for the use of children, between those ages, that he intends this book. The subjects are treated thus:—In lesson three, the muscles are described in the most general manner; then follows a series of questions on the lesson; the whole, lessons and questions, occupying only two pages 8vo., large type; then two full length coloured figures are given to exhibit the muscles, chiefly of the surface, and letter-press is appended to the plates, describing the names, etc., of the various muscles displayed. The skin, etc., are treated of in the same way, and at about the same length. It seems to us, that little children of nine or ten might be much more usefully employed than in getting a glimpse of their own bowels, their structure, and mode of action; however, this may be matter of opinion, for Mr. Lovett assures us, that the first step towards lessening the dominion of evil, and extending the empire of goodness, is an acquaintance with anatomy and physiology; and Mr. Lovett teaches anatomy and physiology to several classes of from ten to thirty children weekly; the ages of his pupils generally ranging between nine and twelve years.

The Teeth and their Preservation. By Charles Vasey. London. 1850. Pp. 31.

Practical Observations on the Teeth. By Henry Jordan. London. 1851. Pp. 154.

These little books are not designed for the instruction of the Profession. Every dentist seems to think it essential for success in his Profession, that he should write a book to inform the public how their teeth are formed, how to keep them clean, how to have them out, and how to have them put in again. We say, *how* to have them out, and *how* to have them in again; but, we believe, the majority of these little books are intended to inform the suffering public *where*, and by *whom*, they may have these things done for them in the best possible manner. The little books before us are among the best of their class.

GENERAL CORRESPONDENCE.

THE VACCINE PROTECTION QUESTION.

[To the Editor of the Medical Times.]

Sir,—Your Journal of May 10 gives a series of queries, issued by the Epidemiological Society, for the purpose of aiding in the solution of the great question of vaccine protection. I think, Sir, either that Society, or the National Vaccine Board, or the Board of Health, or the Poor-law Commissioners, would do well to examine carefully the Quarterly Return of Deaths in England for the quarter ending March 31, 1851, just issued by the Registrar-General. That most interesting document has startled me not a little, accustomed as I am to see and read of small-pox. I will lay before your readers a brief abstract of some of the facts therein recorded, and leave it to yourself to say whether such statements should go forth without attracting some portion of public attention.

It appears, Sir, that in the first quarter of this year, small-pox has prevailed, to a greater or less degree, in Hertfordshire, Shropshire, Staffordshire, Warwickshire, Cheshire, Lancashire, Yorkshire, and the Isle of Anglesey. The Return does not give the ages of those that died of small-pox; but, as usual, the great proportion of the deaths by that disease occurred in children, and this it is to which I would call the special attention of your readers. When small-pox proves fatal after vaccination in London, it is almost invariably in adults; but what are the statements in the Registrar-General's recent Report as regards the rest of England?

We read that in Dudley (Staffordshire) 58 deaths occurred from small-pox, of whom 30 were without previous vaccination. 28, therefore, must have been vaccinated, or, at any rate, subjected to the process of vaccination,—nearly one-half. We further read, that in Tipton, six deaths occurred by small-pox after vaccination. In Sedgely, three deaths are stated to have been by small-pox after vaccination, so that one District Registrar returns 37 cases of death by small-pox after vaccination in three months! As I believe the greater portion of these 37 cases were children below fifteen, I cannot but suspect either that the fact of prior vaccination was erroneously recorded, or that the lymph in use in that district is effete; or, lastly, that the Registrar has not drawn the proper distinction between small-pox after vaccination, and small-pox concurrent with vaccination. How the circumstances are to be explained I profess my entire ignorance, but sure I am that inquiry is necessary.

The Registrar of Runcorn (Cheshire) states that "there is a great want of attention on the part of parents, in not taking their children to be vaccinated. He trusts that stringent measures will be adopted to compel parents to have their children vaccinated." The Wigan Registrar states, "that the parents of children are exceedingly obstinate with regard to vaccination, but that they have improved in that respect of late, in consequence of the Board of Guardians having placarded the town with notices, that parties would be punished for neglecting to attend to the vaccination of their children!"

The Registrar for Oldham reports that twenty-five persons died of small-pox, the greater portion of whom had never been vaccinated. Of course the smaller portion had been vaccinated. The Registrar for Leeds makes the following statement:—"Deaths by small-pox in the vaccinated, 12; small-pox (not vaccinated) 26. An adult (not previously vaccinated) died of small-pox, aged 37. The rest of the small-pox cases were among children." So here, we see twelve children recorded as dying of small-pox after vaccination, in the short space of three months, in one district of one town!

At Manchester (Deansgate subdistrict) we learn, that in the same short space of time, fourteen deaths occurred from small-pox, nine unvaccinated, and therefore, I presume, five vaccinated.

I will not trespass further on your columns; but what I have extracted from the Registrar-General's return, will, I trust, excite attention in some quarter. If these things be truly represented, can we wonder at the following statement made by the Registrar for Shrewsbury?—"Small-pox first appeared here in the third week of January, and has continued, with little abatement to this date. (March 31.) Gratuitous vaccination is offered to all, but few avail themselves of the benefit."

I profess my utter inability to comprehend the nature of the punishment threatened by the Board of Guardians of Wigan (Lancashire) against parents for neglect of vaccination. Perhaps some one of your correspondents in that locality would forward to you the minatory placard, for the edification of myself and other "constant readers." I am, &c. GEORGE GREGORY.

6, Camden-square, Camden New Town.

THE YELLOW-FEVER EPIDEMY IN THE BRAZILS.

[To the Editor of the Medical Times.]

SIR,—I should not have considered it necessary to have again addressed you on the late fever in Brazil, had not Dr. M'William offered some further remarks on the subject.

That the evidence now *entirely* relied on from the Drs. Paterson can only rest on vague rumour, is proved by the mention of Dr. A. Paterson's having "ascertained beyond doubt" that "*several* Spanish passengers" from the Havannah took up their abode *chiefly* in the quarter called "Santa Barbara," while in a later part of Dr. M'William's paper, he says, "Dr. Paterson, to use his own words, 'on the strongest possible evidence,' ascertained that the disease first appeared in that part of the city (Santa Barbara) where *the passenger* by the Brazil went to lodge."

That the Brazil touched at the Havannah, rests upon conjecture alone. For Consul Porter assigns, as a reason for her having done so, the landing of a cargo of slaves there; Dr. J. L. Paterson says it was "understood;" Dr. A. Paterson (in 1851) adds, "she took in several Spanish passengers;" and when Dr. M'William afterwards uses Dr. A. Paterson's own words, the *several* Spanish passengers are compressed into *one* "'on the strongest possible evidence;'"—whilst we must observe that all these modes of accounting for her visit to the Havannah were not only investigated after the *arrival* of the vessel, but were never mentioned for nine months, and therefore long after she had *sailed* from Bahia, according to all use and wont in such cases. The trustworthiness of the narrators I do not doubt, neither do I doubt that they have been deceived; and Dr. M'William shows little prudence in trusting to such a narrative.

Dr. M'William, in one part of his paper, cites Dr. J. Paterson's first fatal cases in the harbour as occurring on board the "Swede," viz., the brig Scandia; and in another part places these cases on board the Brazil, apparently to show it was "probable she had the disease on board at the time of her arrival, on the 30th September, 1849." A tranference for which there is no authority whatever in any of the official papers.

To institute quarantine against a disease which the Royal College of Physicians consider to be merely a grade of the endemic fever of warm climates, not a disease "*sui generis*," and which is only communicable under certain circumstances, such as "unhealthy seasons" and "local insalubrity of site," appears to be superfluous, if not absurd,—and logic cannot make it rational.

The prevalence of yellow fever at the port of departure is not, according to Dr. M'William, necessary for its exportation; and he seems to place its communicability on the same sure footing with that of small-pox, or scarlet fever. Now, I appeal to any one whether this be, or be not, absurd.

The arrival of the Alcyon at Pernambuco, before the fever broke out, need not be disputed; but she landed men suffering from the disease, and put them into the French Hospital, where the disease *did not* break out; whereas Dr. Paton was attacked in the British Hospital when "neither he nor any one else at the Hospital had had the slightest communication" with the shipping. The landing and lodging of the sick, therefore, were harmless, and the origin of the disease at Pernambuco can only be attributed to that source on gratuitous assumption. The case of M. Lassere, brought forward by Dr. M'William, had been rendered improbable by the Consul's official statement, given in a note to my former letter; and it could not be of real value, unless M. Lassere had kept beyond the "local insalubrity of site," which must be part and parcel in producing this disease. The particulars regarding the wagoner are so formally contradicted by numerous occurrences at Petropolis, etc., etc., that the story as it stands is worthless.

The single case in Rio Grande do Sul occurred during the prevalence of bilious fevers, and any conclusion to be drawn from this fact must be the very reverse of that arrived at by Dr. M'William.

The cases on board the Tweed, Cormorant, and Prony, at Monte Video, were noticed merely to show that the disease was in the harbour, and these facts *might* have been found useful by Dr. M'William, had the disease broken out on shore. All these vessels are mentioned in the same despatch, though Dr. M'William has not heard of the case of the Prony.

The hypothesis of Dr. Lallemand, as it is now called, was the simple statement of a fact as to a climatic change emphatically denied by Dr. M'William, and on the assumed absence of which some of his conclusions are founded. The nature of the questions put to Dr. Lallemand was commented on, because every person acquainted with the examination of witnesses must be fully aware, that leading questions are utterly discountenanced at the bar, from their being calculated to bias the evidence. I have no idea that Dr. Lallemand was influenced by unworthy motives, but it is evident he had been exposed to that risk of bias, from which an impartial judge always protects the witness.

That the fever was not contagious at Petropolis, must appear to every unprejudiced person conclusive as to its being *not* contagious elsewhere; and this is one of the facts relied upon by the illustrious Humboldt, when he says, "on the Continent of equinoctial America, the yellow fever is *not* more contagious than the intermittent fevers of Europe."

I distinctly stated that Dr. Sarmento had been quoted by Consul Cowper, from Pernambuco, in his despatch of the 7th January, 1850, —the identical despatch, be it observed, and the only one, which gives the account of the cases of Dr. Paton and Mr. Pitt!

Dr. M'William complains that I should have supplied the paragraph from Mr. Lee, when he had given one to the same purport from the paper of Dr. Croker Pennell. Let us now see how he represents the latter,—whose "account of the rise and spread of the fever," according to Dr. M'William, "differs in no important particular from the elaborate report of Dr. Lallemand." Dr. M'William says:—"Dr. Croker Pennell states that there were many cases where no source of infection could be traced. He also says, that several masters of vessels declared to him, that though coming direct from Europe, fever made its appearance on board of their ships as soon as they approached the coast of Brazil; and that, *from the accounts the masters gave* of the disease, it appeared to be the same as that prevailing at Rio, but slighter. The same was said regarding vessels arriving at Bahia; but Dr. Paterson soon found out that *these cases* were merely from attacks of the mildest nature, and not yellow fever."

I will supply Dr. Croker Pennell's own words:—"Several masters of vessels, without being questioned, declared that they entered the harbour with fever on board, although coming direct from Europe; that as soon as they approached the coast and came within the influence of the breezes from the shore, their men fell sick with fever. Most of the cases were slight, *but some were attended by black vomit*, and proved fatal after their arrival in port." And in another place, he says,—"In many instances the newly-affected had either been on shore, or were known to have had intercourse with the sick; but in many others, and not a few, no communication, direct or indirect, was known to have occurred, *nor, indeed, from circumstances of time and place, could have taken place.*" Dr. Croker Pennell likewise says:—"In no other way than by supposing the disease to be of endemic origin can it be explained how the natives and the acclimated suffered so little. In no other way than by supposing this disease to be of endemic origin can it be explained how ships came into port with this *identical fever* on board."

Dr. Croker Pennell distinctly states, that this was the first time he had ever seen yellow fever, and that he had previously believed it to have been a highly contagious disease.

I think, Mr. Editor, that, however Dr. M'William may have supported his character for reasoning power, it must be admitted that he has entirely failed as an historian of the opinions and events connected with this outbreak of yellow fever in Brazil. This is the more to be regretted, from the circumstance, that the various reports and despatches relative to this fever, are not generally accessible to the public eye; and therefore the demand for complete and impartial accuracy would appear more paramount from the favoured author. I am, &c. THOMAS BAKER.

St. John's-road, Fulham.

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MEDICAL TAXATION.

[To the Editor of the Medical Times.]

Sir,—Excuse a country General Practitioner for holding out the suggestion that. if you will kindly wield your able pen towards the promotion of a feeling of detestation to the odious and ungenerous, because unjust and unequal, Income-tax, you will, in his opinion, be conferring a boon upon the members of our Profession, provided it have the effect of inducing them to petition Parliament to equalize the obnoxious impost.

Why, in the name of common sense and justice, should the medical man pay as much for the protection of his labour and skill as the landed proprietor does for the protection of his estates? Many medical men in the rural districts receive but small incomes, whatever they may enter into their day-books. Would it not be advisable for the members to sign a Petition, the heading of which might be retained by yourself until their names were transmitted to you, the said Petition having been previously sanctioned by a Committee of medical men, or by the Profession in general? Or would it be more advisable that a number of petitions be sent from various districts? I am inclined to think that a Petition, signed by thousands of my brethren, would have greater weight than a number of petitions from the districts. Grateful do I feel that the indefatigable Hume carried his amendment for one year's continuance of the odious tax, during which period, Mr. Editor, incite us, as loyal subjects, to petition. I am, &c.

Yorkshire. A General Practitioner.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

Dr. Murphy, President, in the Chair.

CATALEPSY IN RELATION TO OTHER DISORDERS OF THE NERVOUS SYSTEM.

Dr. Downing read a paper on Catalepsy in relation to other disorders of the nervous system.

After some preliminary observations, tending to show the wonderful character of the phenomena evinced in these cases, their rarity and mystery, the author alluded to the different lights in which they were regarded by people—the weak and ignorant believing them due to supernatural agency, the strong-minded either denying them altogether or attributing them to artifice and imposture. He considered it unnecessary to grapple with the two former objections. With respect to the last, more consideration was required, in deference to the opinion of the great men advocating it. The well-known doctrine of Cullen, for instance, that all cases of so-called catalepsy were feigned, he thought by far too sweeping an assertion. However well the slighter symptoms might be counterfeited, there was an utter impossibility of imitating, for a continuous period, all the phenomena displayed in the course of the graver malady. No actor, however accomplished, could sustain the character with consistency. Neither should the fact be lost sight of, that the disease may be genuine, although accompanied by a certain amount of deception. There is a frequent tendency to exaggeration in all nervous affections. It forms an essential part of the complaint. The physician who should pronounce the whole an imposture merely because he had discovered a portion of deceit, would run the risk of his judgment and humanity being called seriously in question; for the unfortunate patient too often seals the truth of his testimony with his life. Dr. Downing then proceeded to sketch the ordinary features of true catalepsy, distinguishing it from the carus ecstasia and carus lethargus of Dr. Mason Good, and the catochus of other nosologists. He believed, however, that all these species were intimately connected, frequently passed into each other, and were probably dependent upon nearly the same pathological condition. The passive energy of the muscular system, permitting the body to be moulded into almost as great a variety of attitudes as if it were a figure of wax or lead, was the distinguishing characteristic of the disease. It was an intermittent disorder, but had no approach to periodicity or regularity of accession. Neither was the duration of the trance by any means uniform. Instances were cited from Stearns and Bouvier, in which there were from 10 to 100 fits in the twenty-four hours. One that he had himself witnessed lasted more than four months. The usual termination was in complete recovery. The worst forms may, however, degenerate into epilepsy, apoplexy, or confirmed insanity. Rarely does it end fatally, although he had himself met with two such instances. Respecting the etiology of catalepsy, considerable obscurity prevailed. Among the predisposing causes were a highly nervous temperament and whatever is calculated directly to weaken the body or to act powerfully on the mind, particularly religious enthusiasm, great mental application, and the passion of unrequited love. Sex has some influence, as females are more subject to the complaint than males. The affection is most commonly excited by some violent mental impression, such as terror, suppressed rage, and certain of the above predisposing causes when acting intensely. Of this, illustrations were furnished by Forestius and Bonetus. Physical causes may also operate in its production; increased momentum of blood in the brain, worms, ungratified passions, and disturbance of the uterine functions, for instance. In fact, the causes of catalepsy may be centric or eccentric, or may partake both of a moral and a physical character. Allusion was also made to the artificial production of conditions apparently identical with catalepsy by animal magnetism or mesmerism, pointing to the readiness with which nervous affections may be engendered, and the facility with which one state passes into another. The author said, that the scalpel had thrown little or no light on the pathology of this affection. Rarely was an opportunity afforded for dissection, but when there was, the evidence was very contradictory. According to Haller, Boerhaave, Lieutard, and Tissot, the same morbid appearances have been discovered in the heads of those who have died cataleptic as have been seen in the crania of persons who have died of other and quite dissimilar diseases. In other cases, though the brain and nervous system have been carefully examined, no morbid changes whatever have been found. In Dr. Downing's opinion, we must not look for or expect necessarily appreciable morbid change. Catalepsy is a disorder of function, and organic change may precede or follow it, but does not, of necessity, attach to its existence. A part of the nervous system is put into a state of unnatural irritation or excitement, which may leave no trace whatever, except to finer senses than our own, of its evanescent action. The suddenness of accession, the abruptness of termination, both tend to establish this view. In what light, then, are we to regard this anomalous affection? After alluding to the classification of catalepsy among the comata of nosologists, Dr. Downing said, that its alliance to two disorders was more especially deserving of attention. In by far the greater number of authentic and fully detailed cases, it appeared to have the strongest affinity to hysteria. They both occur in similar constitutions, they are convertible into each other, and are susceptible of relief from similar modes of treatment. From the fact of its so frequent commencement in, complication with, and termination in hysteria, and the peculiarity of the phenomena affecting the muscular system only, he was inclined to hazard the conjecture, that catalepsy was identical with hysteria, but that its attacks are restricted to the motor, or efferent system of nerves, or, rather, to that portion on which depends muscular tonicity. The other disorder to which catalepsy had a great affinity is insanity. Cases illustrative are furnished by Dr. Gooch, Dr. G. Burrows, as well as by Boerhaave, J. Frank, Behrend, and Pinel.

The *diagnosis* of catalepsy would offer less difficulties were it not for its occasionally wilful, or partially wilful imposition. So, again, in the discrimination between it and apparent death care should be taken that the stiffness of the limbs be not mistaken for cadaveric rigidity. The one always ceases some time before the other sets in. On the hypothesis that catalepsy is but a form of hysteria, the treatment should be regulated. In Dr. Downing's opinion, however, more good is to be expected from passive than active remedies. The slighter cases will get well of themselves without assistance. In the graver instances little good has been afforded by medicine. The grand object, therefore, is to support the strength of the patient, so as to gain time for the more effectual operation of nature. The Author then directed the attention of the Society to the recorded cases, and analysed them carefully. Some few of those detailed by Sauvages, Boerhaave, Hoffman, and Sprengel were doubtless genuine, but by far the greater number either feigned,—he would not say fabulous,—or wrongly designated. Tissot has collected a great many authentic histories. The latest, most instructive, and best marked cases, are those recorded by Drs. Gooch and Burrows, to which allusion has already been made. Finally, Dr. Downing said that he himself had witnessed several examples of partial or general catalepsy, but that they all sank into insignificance in comparison with the extraordinary case he then proceeded to relate, and which he believed to be one of the most singular ever met with. It occurred in a fine, intelligent young man, 25 years of age, the son of an English merchant. He had been educated in

France, where he became subject to epileptic fits, in consequence, it was supposed, of scanty diet. Subsequently, through disappointed affection, religious enthusiasm, and excitement of business, ambitious monomania manifested itself, for which restraint was employed. In April of the last year, the young gentleman was found in bed in a trance—in a perfect state of torpor—which persisted for four weeks, when he returned to his previous condition. On the 5th of July, a fresh seizure awaited him, attended by slight rigidity of the limbs. By the 2nd of October the cataleptic phenomena were fully developed, and gradually increased in intensity until his death, on the 16th of February of the present year. During all this time—a period of four months and fourteen days—the patient lay on his back, perfectly rigid and immoveable, in bed. All his evacuations were passed involuntarily, and only at long intervals could he be fed, except by the aid of the stomach-pump. Yet there is every reason to believe that he was perfectly conscious of all that was passing around him, and spoke quite rationally during those short periods when his jaws were free from spasm. Unfortunately, no inspection of the body was allowed. Dr. Downing concluded his very interesting paper by some observations, suggested by this case, on the difference between the rigidity of disease and the rigor mortis; the close connexion existing between the different affections of the nervous system, and the extreme susceptibility to impressions noticeable in the cataleptic condition.

Dr. Camps remarked, that the author in his paper had expressed the opinion, that catalepsy was not necessarily connected with organic disease; but he (Dr. Camps) thought that if, in the case which Dr. Downing had related, a *post-mortem* examination had been made, structural derangement would have been found. He was of opinion, that some of the symptoms pointed to chronic progressive softening of the brain as their origin. Some of the most striking symptoms of that organic change were present in Dr. Downing's case. Persons so affected look upon themselves as very great personages, as popes, emperors, and the like. Dr. Downing's patient thought himself a saint, with a Divine mission to execute upon earth. Cases of catalepsy are generally very interesting. There were some on record which Dr. Downing had omitted to enumerate; among these was that of Elizabeth Woodward, who lay in a trance for an entire week. He had himself known the case of a gentleman who was in a trance so long, that he was thought to be dead, and his coffin was made and brought home. He was aroused from it only by the marks of great affection shown him by his mother. Dr. Camps terminated his remarks by condemning what he considered the too great precipitancy of friends in removing lunatics to asylums. He thought the results were generally unfavourable, as, indeed, it proved to be in Dr. Downing's case.

A Foreign Visiter, to illustrate Dr. Downing's position, that catalepsy does not necessarily depend on organic diseases, mentioned a case occurring in his private practice, in which the disorder was only temporary. His patient was a young man, on whom he was about to operate, and to whom he exhibited sulphuric ether as an anæsthetic. After the operation had been completed, he found his patient was cataleptic. On moving his arm, or any limb, it remained fixed in the position in which he placed it. There was also complete insensibility. He had never before seen such a result from an anæsthetic. The patient was restored to consciousness by the use of the liquor ammoniæ caust., and afterwards completely recovered. He mentioned the case merely to show that Dr. Downing's view, that the disease did not always depend on organic disease, was correct.

Dr. Snow inquired of Dr. Downing whether ether or chloroform had been used by inhalation to relieve the spasm in his patient.

Dr. Downing answered in the negative; it was considered that the use of either anæsthetic would cause death, on account of the great debility of the patient.

Dr. Snow thought it was much to be regretted that the spasm was not removed by ether or chloroform at least twice a day, so as to obviate the necessity for the violent introduction of the stomach-pump tube, with the consequent loosening of the teeth, and the great suffering of which it appeared afterwards the patient was thoroughly sensible. The spasm might thus have been removed temporarily, as it has been in tetanus; and its use might perhaps have obviated altogether the necessity for the stomach-pump, as has been the case in some instances of mania. It might also have had a beneficial effect upon the disease, although it could not remedy the organic changes, which sooner or later must have terminated fatally. He did not think that the state of debility should have precluded its use, as chloroform is a stimulant; and, indeed, Dr. Todd had prescribed chloric ether, which is little else than a tincture of chloroform. Many narcotics, such as conia, ether, chloroform, etc., may induce temporary catalepsy.

Mr. Gay had had a case of catalepsy in his practice at the hospital some years since, in a girl who came from the lower parts of Essex, and who had been dismissed from two other hospitals as incurable. She was greatly emaciated, the limbs rigid, the eyes partly closed, mouth half open, pulse very feeble, inspiration very slow, expiration almost spasmodic, with moaning. She appeared to be insensible to what was passing around her; the food was pushed to the fauces, and then swallowed; the evacuations were discharged involuntarily; and in this state she had been for nine months. She was about thirteen years old, and had never menstruated, her illness being attributed in part to the non-occurrence of that excretion. He was uncertain as to the treatment to be adopted, but at length determined to try the relaxing. He accordingly gave her one-grain doses of tartar emetic. The first dose caused sickness, and he thought the pulse rallied a little. The medicine was repeated again and again, and by and by the girl spoke, and began to move. She got well in a fortnight. He had seen her since; she was then strong, stout, and healthy. He thought these cases were allied to hysteria and tetanus, and was led to give the ant. tart. from having found it more beneficial in cases of traumatic tetanus than any other remedy he had ever used. In one case the patient recovered; in another the patient, although apparently well, dropped dead while changing a shirt. He was inclined to think with Dr. Downing, that in these cases we should not find much organic disease in the brain: in many instances it would be induced by a passing affection of that organ, set up by distant irritation.

Mr. Dendy remarked that catalepsy rarely occurred in its uncombined state, and generally as a symptom merely of other disease. He believed that in Dr. Downing's case, there was extensive structural disease, which had arrested all the powers of the system, the patient dying of starvation. He did not think functional disorder could continue long without structural disease. In these cases he considered the proximate cause of the malady to be hyperhæmia of the cerebral axis, which might be combined, however, with general anæmia, and the treatment then should be directed to relieve the local congestion by the local abstraction of blood, while the general anæmic condition of the body should be met by anti-spasmodics and tonics. These cases may continue for a very long time, not being very amenable to treatment. He had seen several cases analogous to that narrated by Dr. Downing. A girl, the daughter of a milk-woman, some eight years ago, became affected with well-marked catalepsy, and so continued for four days, in spite of the active treatment that was pursued. She then awoke suddenly, had some bread and butter, and went off again soon afterwards for eight or nine hours, when she awoke perfectly well. Although previously to this she was a moral and well-disposed girl, her conduct changed afterwards, and he had, consequently, an impression that the mind had been affected by the disease. She survived the attack about five or six years, dying ultimately of another disease.

Mr. Palmer referred to obstruction of the bowels and suppression of the catamenia as causative of nervous disorders in women. In Dr. Downing's case, he thought that functional derangement had led to chronic inflammation of the brain.

Dr. Forbes Winslow observed, that, having had the advantage of seeing the case of catalepsy just narrated, and being much interested in the subject, he would make a few remarks in relation to it. It was a well-established fact, that catalepsy in its true form—unmixed and uncomplicated catalepsy—was a rare affection. So rare did Dr. Cullen consider the disease, that he maintains that it never occurs—that those cases which are termed cataleptic are always instances of feigned disease. Without assenting to so sweeping an observation, he (Dr. Winslow) would, nevertheless, admit that catalepsy was frequently feigned; true and unmistakable instances of the disease, however, are on record. The affection frequently manifested itself in hysterical women, and also in men having the hysterical temperament. It was a disease nearly allied in its symptoms and progress to those anomalous functional disorders of the nervous

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system included in that somewhat obscure but comprehensive term, hysteria. In this Protean malady, there was generally a disposition to exaggerate the nervous symptoms, and, in many cases, the disease was simulated altogether. In the affections called cataleptic, ecstacy, and other allied conditions of nervous derangement, there was generally associated with the true tetanic rigidity of the muscular fibre some degree of imposture. Dr. Winslow did not consider the case of catalepsy under discussion unmixed in its character. It was associated with epilepsy and insanity; besides, he considered that the symptoms were partly feigned. Neither was it the most extraordinary case upon record. Professor Huss, of Stockholm, had related a case of catalepsy of thirteen years' duration. Other instances are recorded in the medical journals equally extraordinary to the one under consideration. The author of the paper observed, that one remarkable feature in connexion with the case was the fact of the catalepsy preceding the attack of insanity. This was not so rare an occurrence as the author imagined. Joseph Frank had related the case of a man who, struck by a feeling of remorse whilst hearing a sermon, rushed out of the church and was seized with catalepsy at the door. His limbs became as stiff as pieces of iron, and remained in any position in which they were placed. This man subsequently became deranged. Dr. Winslow had often seen cataleptic symptoms precede attacks of insanity; he referred to those cases of morbid tonicity of the muscular system associated with or caused by hysteria; but unmixed and uncombined catalepsy he had never seen precede a maniacal seizure. Tetanic spasm and rigidity of the limbs he had often witnessed in connexion with certain morbid states of the brain, disordering the mind. With regard to the pathology of Dr. Todd's case, as related by Dr. Downing, it was difficult to speak. Unfortunately, no *post-mortem* examination was permitted, so, in forming an opinion of the probable condition of the brain or spinal cord, they could only reason from the results of analogous cases, and apply to the elucidation of the difficulty the general principles of physiology. Two of the preceding speakers had stated, that, in this case, there was undoubtedly softening of the brain; and one gentleman had come to this conclusion from the fact of the delusions of the patient being of an ambitious character. It was true that, in the insanity which generally accompanied ramollissement of the brain, leading to general paralysis, the ideas of the patient were frequently, and almost always, exalted,—that he would have notions of exalted rank, station, or wealth. It would, however, be illogical to assert, that this pathological condition of the brain existed, merely because the patient, as in the case before the Society, had extravagant notions of his position in life. Dr. Winslow would feel disposed to attach more importance to the morbid spasm and rigidity of the muscles as evidences of a softened condition of the nervous tissue. In this case there certainly were no well-marked and unequivocal symptoms indicative of ramollissement of the brain. The man had, up to the period of his death, a clear and vigorous intellect. When consciousness was manifested a short period before he was seized by the last attack, which terminated fatally, he gave evidence, not only of the absence of impairment of mind, but of a strong intellect. He conversed on various topics, manifested much intelligence, and spoke on scientific points with considerable ability and strength of understanding. Certainly these were not the symptoms of an organic disease like ramollissement of the brain, and ramollissement to such an extent as to produce that severe disease of the muscular system under which the patient laboured. In this case, if there had been ramollissement of the brain, we might with some reason have expected impairment of mind as well as an affection of the motor power. True, as well as combined catalepsy, arose from various morbid states of the nervous system. It was frequently the effect of congestion of the brain, effusion in the brain, congestion and other morbid conditions of the spinal cord. It had often an eccentric origin. In illustration of the latter observation, Dr. Winslow cited a case of long-continued and severe catalepsy, which was suddenly cured upon the patient vomiting a clot of blood. It also was occasioned by irritation established in a remote part of the system, affecting some of the great nervous centres. It was known to be often the result of worms, and in early life the irritation of dentition is known to cause severe spasm and morbid rigidity of the muscles. In many cases of catalepsy we must look to the heart for the source of the disease. Certain morbid conditions of the blood would also give rise to the affection. Alterations in the structure of the brain and spinal cord were sometimes the consequences of an abnormal state of the blood affecting nervous nutrition, and thus producing disorder of the cerebro-spinal system.

Mr. Chippendale thought the discussion of the evening had shown that Cullen's opinion was correct, for all the cases of catalepsy that had been narrated were complicated cases—not pure instances of the disease. He then narrated a case of catalepsy in a dog, caused by fear of punishment.

Mr. Borlase Childs described a case of partly similated catalepsy in a member of the City police, assumed to avoid punishment for intoxication while on duty.

Dr. Downing alluded to the difference of opinion as to the existence or non-existence of organic change in this disease. He could readily believe that organic alteration of structure had occurred in the patient whose case he had narrated; but his position was, that catalepsy might occur, totally independent of structural changes. He condemned the harsh and cruel experiments sometimes made to ascertain the sensibility of patients in a trance, and said they might be quite sensitive to pain, without the capability of giving expression in any way to their feelings.

UNIVERSITY OF ST. ANDREW'S.

MEDICAL EXAMINATION.—MAY, 1851.

FIRST EXAMINATION.—TO BE TRANSLATED INTO ENGLISH.—Implet autem corpus modica exercitatio, frequentior quies, unctio, et si post prandium est, balneum, contracta alvus, modicum frigus hieme, somnus plenus et non nimis longus, molle cubile, animi securitas, assumpta per cibos et potiones maxime dulcia et pinguia, frequentior cibus, et quantum plenissime potest, digerere.

Extenuat corpus aqua calida, si quis in eam descendit, magisque si salsa est: in jejuno balneum, inurens sol, et omnis calor, cura, vigilia, somnus nimium vel brevis vel longus: lectus, per aetatem, terra; hieme, durum cubile: cursus, multa ambulatio, omnisque vehemens exercitatio, vomitus, dejectio, acidae res et austerae, et semel die assumptae epulae, et vini non perfrigidi potio jejuno in consuetudinem adducta.

1. What are the general characters of alkalies? Give the names and composition of the ordinary alkalies. 2. What is the composition of sulphuric, muriatic, oxalic, prussic, and tartaric acids? 3. In what manner is morphia prepared from opium? and by what tests can it be distinguished? 4. Name the emetics included in the "Pharmacopoeia," and state the doses in which they should be prescribed. Mention the purposes for which they are generally ordered, and the cases in which their administration may prove dangerous. 5. What are croton oil, aloes, jalap, gamboge, scammony, and elaterium? Name the cases in which they are specially applicable, and the form and dose in which you usually prescribe them. 6. Write a Latin prescription (without using abbreviations) for an expectorant mixture suitable for a case of chronic bronchitis; also for a warm aperient draught.

SECOND EXAMINATION.—1. What bones enter into the composition of the orbit? Describe the distribution and functions of the different nerves found within this cavity. 2. Describe the parts brought in view on opening the right auricle. What are the causes of the sounds of the heart? 3. With what organs is the liver in contact? Describe its ligaments, fissures, and vessels. What is the capsule of Glisson? Describe the physical and chemical characters of the bile, and state the uses of this secretion. 4. Describe the relations of the internal iliac artery to the adjacent parts. Name its most important branches and the structures which they respectively supply. 5. What is the chemical constitution of healthy urine? Describe the means of distinguishing the ordinary urinary deposits.

THIRD EXAMINATION. (a)—1. Describe the modes in which defective cleanliness, ventilation, and drainage excite disease. 2. What are the symptoms, causes, and treatment of the different forms of iritis? 3. Describe the symptoms, diagnosis, causes, treatment, and pathological anatomy of acute laryngitis. 4. Describe the symptoms, diagnosis, causes, and treatment of enteritis. 5. Mention the predisposing causes, symptoms, and treatment of the various forms of intestinal entozoa. 6. What are the constitutional symptoms and the dangers arising from burns and scalds of different degrees of intensity, and what are the general

(a) The examiners expect that, in the answers to the practical questions, every candidate will specify the mode of treatment he is in the habit of adopting, and the doses of the medicines which he prescribes.

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indications in regard to treatment? 7. To what diseases is the fœtus especially liable? What are the signs of the death of the fœtus? 8. What are the cases in which the operation of craniotomy is demanded? At what period of labour should it be performed? State the reasons why it is more dangerous than the application of the forceps.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 9th inst.:—

BUCKLAND, FRANCIS THEVELYAN, Deanery, Westminster.
CARPENTER, ALFRED, Rothwell, Northamptonshire.
CARR, WILLIAM SAIT, Aberdeen.
CHALDECOTT, FREDERIC JAMES, Dorking, Surrey.
FOUNTAIN, JOHN, Cowley, Uxbridge, Middlesex.
HANDFORD, ALBERT WILLIAM, Nottingham.
MOORE, EBENEZER, Islington.
POWER, HENRY, London.
SIMPSON, HENRY, Chester.
THOMAS, HENRY CORNELIUS, Vauxhall-road, Pimlico.
WAKE, EDWARD GEORGE, Hull.
WARWICK, WILLIAM, Belfast.
WELLINGS, RICHARD, Ravenstone, Leicestershire.
WILDE, JOHN, Islington.
WILSON, EDWIN, Hyde, Cheshire.

COLLEGE LECTURES.—Professor Paget finished his course of lectures on Tumours on Thursday last. We have great pleasure in stating, that it is the intention of the College authorities to hold a series of meetings at the College, for the purpose of receiving such distinguished members of the Profession as may visit London during the present season, and to which the members of the College will be admitted on presenting a card with their name and address. These meetings will take place on the evenings of Wednesday, the 11th of June; Wednesday, the 9th of July; and Wednesday, the 13th of August, at nine o'clock; when lectures will be delivered by Professors Owen and Paget, and Mr. Quekett, who will deliver discourses on Metamorphosis and Metagenesis, on the Recent Progress of Anatomy and its Relation to Surgery, and on the Organic basis of the Vegetable and Animal Skeleton, with microscopic illustrations.

MR. VINCENT.—The Profession will regret to hear that this esteemed gentleman still continues very ill. We understand that he has resigned his seats at the Examining Board and the Council of the Royal College of Surgeons. It is reported that there will be more than one vacancy to fill up in the Council at the annual meeting of the Fellows, and that Mr. Luke, of the London Hospital, will succeed Mr. Vincent. The names of the candidates next in rotation for the Council we shall give next week.

UNIVERSITY OF OXFORD.—The lectures to be delivered by the Professor of Botany, on the natural arrangements of plants, commenced on the 12th inst. They are to be continued three times a week until completed.

OBITUARY.—At 24, Great Russell-street, Bedford-square, on the 9th inst., James Kennedy, M.D., of Woodhouse, in the county of Leicester, aged 70. On the 8th inst., at Heworth Cottage, near York, Alexander G. Cockburn Thiselton, M.R.C.S., aged 27. On the 13th instant, in Little Knightrider-street, Doctors' Commons, John Pelham Buckland, Esq., surgeon, aged 46.

MILITARY APPOINTMENTS.—34th Foot, Assistant-Surgeon Wm. Legge Reid, M.D., from the 2nd West India Regiment, to be Assistant-Surgeon, vice Clutterbuck, who exchanges. 58th Foot, Assistant-Surgeon Benjamin Tydd, from the staff, to be Assistant-Surgeon, vice Philson, who resigns. 2nd West India Regiment, Assistant-Surgeon James Edmund Clutterbuck, M.D., from the 34th Foot, to be Assistant-Surgeon, vice Reid, who exchanges. Hospital Staff, Harris Carr Brakyn, gent., to be Assistant-Surgeon to the Forces. William James Ingham, gent., to be Assistant-Surgeon to the Forces, vice Tydd, appointed to the 58th Foot.

ORDNANCE MEDICAL DEPARTMENT.—George Pain, gent., to be Assistant-Surgeon, vice Young, deceased.

COMMISSION signed by the Lord-Lieutenant of the county of Warwick, Warwickshire Regiment of Militia: Philip Tranter, gent., to be surgeon, vice Wilmshurst, deceased.

NAVAL ASSISTANT-SURGEONS.—Captain Boldero has a notice on the books of the House of Commons for a return showing the number of assistant-surgeons provided with cabin accommodation on board Her Majesty's ships-of-war, from returns received up to the 1st of May, 1851, stating the name of the vessel, together with the number of medical men partaking of such benefit on board each vessel.

DISTRIBUTION OF PRIZES AT THE THEATRE OF MEDICINE ADJOINING ST. GEORGE'S HOSPITAL, MAY 2, 1851,—Sir James Clark, Bart., F.R.S., in the chair. The Report, read by the Honorary Secretary, Dr. W. V. Pettigrew, stated that this was the 21st anniversary of the school; it showed the establishment to be in a very prosperous condition. There had been no change of lecturers for some time past. The pupils were much increased in numbers, and the classes had been excellently attended. Extra lectures upon Surgery, the Microscope and Regional Anatomy, had been delivered during the past session. The following gentlemen received prizes:—*Anatomy and Physiology.*—Gold medal, Mr. H. Lane; silver medal, Mr. A. T. H. Waters; silver medal, Mr. A. Umphelby; certificate, Mr. F. B. T. Baker. *Practical Anatomy.*—Bronze medal, Mr. C. Chapman; certificates, Mr. T. Forder, Mr. Hoile, Mr. Jones, Mr. Surcombe. *Clinical Medicine.*—Prize five guineas value, Mr. H. Lane. *Surgery.*—Prize, Mr. H. Lane; certificates, Mr. A. T. H. Waters, Mr. F. B. T. Baker. *Medicine.*—Prize, Mr. H. Lane; certificate, Mr. Dyer. *Chemistry.*—Prize, Mr. Hoile; certificates, Mr. Chapman, Mr. Garden. *Midwifery.*—Senior prize, Mr. H. Lane; certificate, Mr. W. H. Borham; junior prize, Mr. A. Garden; certificate, Mr. G. E. Howitt. *Botany.*—Prize, Mr. G. B. Halford; certificate, Mr. T. Forder. *Materia Medica.*—Prize, Mr. A. T. H. Waters; certificates, Mr. G. B. Halford, Mr. A. Umphelby. *Practical Chemistry.*—Prize, Mr. A. T. H. Waters; certificate, Mr. G. B. Halford. *Medical Jurisprudence.*—Prize, Mr. H. Lane; certificate, Mr. F. B. T. Baker.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—At the close of the meeting of this Society on Tuesday last, the President announced that the Council had authorised him to admit foreign medical men visiting the metropolis, on the recommendation of a Fellow of the Society, to attend their meetings during the remainder of the session, and also to avail themselves of their extensive library and reading-rooms.

SANITARY ASSOCIATION.—The members of this Association dined together lately at Soyer's Symposium, under the presidency of Lord Carlisle. Subscriptions were announced towards the close of the evening amounting to about 300*l.*, including 25*l.* from Lord Robert Grosvenor, and 10*l.* 10*s.* from the Chairman.

EPIDEMIOLOGICAL SOCIETY.—We have been requested to state, that communications for this Society should be addressed to J. H. Tucker, Esq., 38, Berners-street, Oxford-street, or Dr. M'William, 14, Trinity-square, Tower-hill.

MEDICAL APPOINTMENTS AND VACANCIES.—Mr. Martin has been appointed apothecary to the Westminster General Dispensary. There were nine candidates. The newly elected apothecary will, it is said, be required to act as secretary also, and will receive an addition to his salary in consequence. Mr. M'Murdo has been elected assistant-surgeon to the London Ophthalmic Hospital. Mr. Wordsworth retired from the contest a few days previously. A medical officer is required for the 4th and 5th (united) districts of the Lambeth Union. The salary is 300*l.* a year; the successful candidate must reside in a central part of the district, must give up private practice, and keep a competent assistant. The salary is to include all operations, midwifery, vaccination, and all medicines and appliances, so that the fortunate (?) wight who is elected, will have about 100*l.* or 150*l.* a year to support himself and family. The appointment is for one year only. The population of the two districts is about 35,000. This office will be almost as profitable as breaking stones on the highway. The house surgery to the Wrexham Infirmary continues vacant. The salary is 80*l.* a year; the candidates must be unmarried, and conversant with the Welch language. Medical men so accomplished, are perhaps difficult to meet with, or else the pay is not sufficient. A resident clinical assistant for the Hospital for Consumption, at Brompton, is wanted. The appointment is for six months, and the candidate who is elected will have to pay 21*l.* for breathing an infected atmosphere.

ST. MARY'S HOSPITAL.—At the Board meeting, on Friday last, Lord Manvers took the chair. After the transaction of the ordinary business of the Board, the Report of the Medical Staff Committee, which had been referred back to them by the Board, was read. The Report was substantially the same as that which had been previously presented by the Committee, except that the names of Dr. Lankester and Dr. Miller were omitted amongst the

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names recommended for the office of assistant-physician. The name of Dr. Miller was omitted, as that gentleman had withdrawn from the contest. The number of assistant-physicians recommended was thus reduced to three, the number required to fill up the vacancies. The Rev. W. Scobell, Dr. Heale, and Sir Adolphus Dalrymple complained, that the Committee ought to have sent to the Governors a larger number of candidates. Mr. Ouvry moved that the Report of the Committee be adopted. Dr. Lankester complained that he had been treated by the Committee in a most unworthy manner, and in such a way as he had not anticipated from a body of English gentlemen. He thought he had a right to complain, with the other candidate for the physiciancies, that he had been ill-treated by the Committee soliciting a gentleman, who had never been a candidate, to fill one of those offices. He had applied for the office of assistant-physician to give the Committee an opportunity of acting upon the liberal law of the Hospital, which allowed the licentiates, as well as the intra-licentiates of the College of Physicians, London, to become candidates. He had been gratified by being returned by the Committee as a candidate for the Assistant-Physiciancy; but should not have solicited the votes of the Governors had he not been requested to do so by several of the present Medical Staff, and had the promise of support from every one. Under these circumstances he felt it a duty he owed to his profession to use his best exertions to obtain the position for which the Report of the Committee had rendered him eligible. His surprise might be rather imagined than expressed, to find that the Committee had taken the opportunity of the referring back of the Report to withdraw his name without giving him any notice that they intended to do so. He felt that such conduct would be a blot and a stigma upon the Hospital that never could be effaced; and, putting the best possible construction upon the conduct of the Committee, it would go forth to the world that they had listened to the clamour of an interested and disappointed minority, and sacrificed the great principles of charity and truth. Mr. Richard Martineau, as a member of the Medical Staff Committee, complained that the Report had been sent back to them without any specific directions. He well knew that Dr. Lankester's friends, as well as his opponents, had voted for sending this Report back, and he thought it exceedingly unfair to that gentleman that he should have suffered in this way. Mr. Kindersley, as a member of the Medical Staff Committee, stated that he had not attended the meetings of the Board except on the last occasion, and his impression was, that the Board of Governors wished to have Dr. Lankester removed from the list; and as he had considerable doubts as to what was the meaning of the law of the hospital relative to physicians, he had voted for the removal of Dr. Lankester from the list. Mr. Tatham, as a member of the Medical Staff Committee, wished to express his entire conviction, that Dr. Lankester was an eligible candidate according to their laws. To put the construction upon them that had been by some parties, was to allow, that a physician licensed to practise in Manchester or Liverpool by the London College of Physicians, was not eligible as a candidate; whilst a licentiate of Dublin or Edinburgh practising in Tipperary or Aberdeen would be perfectly eligible. He protested against such an interpretation of their laws, and had freely expressed his opinion on this point in the Committee. The debate lasted till nearly the whole Board had retired, when an amendment, which was moved and seconded having been withdrawn, the original motion was put and carried. [We have not more space this week than merely to call the attention of our readers to the above report. We think, however, they will all agree with us, that Dr. Lankester has been most unfairly treated; and that the Committee have shown a degree of imbecility and infirmity of purpose few would have thought them to possess. The evils of a popular election, and the humiliation of a personal canvass are great, but they are not worse than the proceedings at St. Mary's Hospital. Dr. Lankester has our warmest sympathies, and we are sure those of the great majority of the Profession.—Ed. *Med. Times*.]

University of St. Andrews.—List of gentlemen who had the degree of Doctor of Medicine conferred upon them, May 9, 1851?—Henry Allen Aldred, M.R.C.S., London; Charles Alexander Bissett, M.R.C.S., Peckham, Surrey; John Le Gay Brereton, M.R.C.S. Edin., Yorkshire; Charles Gage Brown, M.R.C.S. and L.A.C., Middlesex; Edward Somerset Cleveland, M.R.C.S., Madras; Cydwelyn Ellis, M.R.C.S. and L.A.C., London; Samuel Turner Fearon, M.R.C.S., Stanstead, Herts; James G. Gaff, M.R.C.S. Edin., Newmonkland, Lanarkshire; Robert Douglas Hale, M.R.C.S. and L.A.C., Norwich; Constantine Holman, M.R.C.S., Hurstperpoint, Sussex; Henry Hooper, M.R.C.S., London; William Jackson, Montserrat, West Indies; John Joseph Ledsam, M.R.C.S. and L.A.C., Warwickshire; Peter Leonard, M.R.C.S. Edin., Forfar; John Glover Loy Merryweather, M.R.C.S. Edin., Yorkshire; Thomas L. Nash, M.R.C.S., Dublin; Lewis Newnham, L.A.C., Sussex; Robert Parker, Lic. Fac. Phy. and Surg. Glasgow, Lanark; John Burchall Peren, M.R.C.S. and L.A.C., Somersetshire; Thomas Peete, M.R.C.S. Edin., Margate, Kent; Samuel Reynolds, M.R.C.S. and L.A.C., London: Frederick Joseph Rowen, M.R.C.S., Tipperary; Craufurd Smith, Lic. Fac. Phy. and Surg. Glasgow, Ayrshire; James Spark, L.A.C., Newcastle-under-Lyne, Stafford.; Thomas Richard Heywood Thomson, M.R.C.S., Isle of Man; Benjamin Webster, M.R.C.S. and L.A.C., Yorkshire; Edmund Sparshall Willett, M.R.C.S., Norfolk.

Exeter.—A Committee has been appointed by the St. Thomas's Board of Guardians, to consider the propriety of lowering the salaries of all the officers, including the medical men, on the ground that provisions are so much cheaper. Whatever arrangement they may make regarding the other officers of the Union, the salaries of the medical men ought not to be touched, as Union medical officers throughout the country are notoriously underpaid.

Mr. Dyce Sombre.—A new inquiry into the state of mind of this unfortunate lunatic has been ordered by the Lord Chancellor, assisted by Vice-Chancellor Knight Bruce, to be conducted by two medical men, who are to have the use of the short-hand writer's notes of the previous examinations, and the power to consult any of the medical men who were engaged on the former examinations, in such a way that when any gentleman should be consulted who had been nominated by one side, a person nominated by the other party should be present at the consultation. The medical examiners have not yet been appointed. Dr. Southey and Dr. Bright have declined to act, and the lunatic objects to Sir J. Clark. Dr. Holland, Dr. Paris, Dr. Seymour, Dr. Winslow, and Mr. Lawrence were named; but, as it was stated that Dr. Paris had made an affidavit in the case, and Dr. Holland and Dr. Conolly had done the same, whilst Dr. Winslow had written upon the matter, so that Dr. Seymour and Mr. Lawrence were the only two medical men proposed who were altogether unbiassed, it is probable that they will be selected. This *vexata questio* has long been before the courts; the English medical men almost unanimously regarding Dyce Sombre as a lunatic, and continental practitioners certifying that he is perfectly capable of managing himself and his property. Meanwhile the Court of Chancery, with great inconsistency, regards him as a lunatic, and yet permits him to wander over the world free and uncontrolled, with his large property at his disposal. It is a strange anomaly, which the present inquiry will not correct; for, even if he be again declared a lunatic, upon which we have little or no doubt, he is to be at liberty to return to his haunts on the continent free and unshackled. No matter, the examination will bring fresh grist to the Chancery barristers' mill, and, in so far, by diminishing somewhat the lunatic's property, will lessen his power of doing ill to himself and others. And such is English equity, and the care that should be taken of a declared lunatic.

The Arsenic Bill.—By this Bill, the sale of arsenic is prohibited, except it be mixed with soot or indigo. The former of these articles is a useless compound, as the poisoner can dissolve the mineral, and strain the fluid, by which means the soot will be got rid of. There are chemical mixtures which should have been directed instead, which, when the compound is mixed with articles of food, will impart such a colour as to warn the intended victim of the crime about to be committed. Soot is a useless addition to arsenic, and will not prove a preventative.

Spurious Tea.—Several labourers in the London Docks have been employed lately in burning about two tons weight of spurious tea, which had been seized by the officials of the Dock Company. We have heard that a large importation of an extraordinary and spurious tea has been made lately, some of which got into circulation. The imitated article is made of a fine clay, coloured and moulded to resemble green tea; it is exceedingly friable under the fingers, and furnishes a dark muddy solution instead of the clear, bright infusion tea should give. It is not impossible that this may have been the spurious article destroyed by order of the Dock Company.

Charitable Bequest.—The late Mr. Desmond, of Kilkenny, has bequeathed 200*l.* to the Kilkenny Dispensary.

Peruvian Bark.—It was stated some time since, that, in consequence of the bark-trees having been greatly injured by their being indiscriminately stripped of this valuable drug, an order had been promulgated, that no more bark should be removed for two years; quinine, in consequence, has been gradually rising in price, until from 10s. 6d. it has risen to 16s. 6d. per ounce. The Govt

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Western mail steamer, which has just arrived, has however brought over 271 serons of bark, and it is therefore fair to presume that the edict has been repealed, and that quinine will be less expensive.

ROTATION OF THE EARTH.—A rather singular and amusing accident occurred in Aberdeen lately at a public meeting, where the Rev. Mr. Longmuir was endeavouring to explain the rotation of the earth by the apparatus now in vogue. The machine he used indicated that the earth was turning the wrong way! He was more successful in subsequent exploits.

STATE OF THE PUBLIC HEALTH IN THE FIRST QUARTER OF 1851.

105,446 deaths were registered in the quarter ending March 31st. This number is less by nearly 15,000 than was registered in the corresponding quarters of 1847 and 1848; and more by 7000 than was registered in the March quarter of 1850. Taking the increase of population into account, the mortality was slightly below the average. It was at the rate of 2·365 per cent. per annum; whereas the average rate of the quarter is 2·457 per cent. The highest rate of mortality experienced in any winter quarter since 1839 was 2·830 in the cold winter quarter of 1847; the lowest was 2·144 in the mild winter quarter of 1846. A previous table shows that the average annual rate of mortality in winter is 2¼ per cent. nearly (2·457); the mortality being above this range in town, and below it in country districts. The mortality in the March quarter was somewhat lower than the average in the 117 districts including the chief towns; and considerably below the average in the 506 remaining country districts. The mortality of the towns was a fiftieth part, and of the country districts a twelfth part less than the average. The country districts are, therefore, enjoying more than their usual immunity, while the mortality in the town districts is scarcely reduced at all; yet it was in the town districts that cholera was most fatal, and, according to a common theory, cut off the weakly lives in 1849. The returns show that little impression has yet been made on the mortality of towns, which have practically been left unimproved. The drains, sewers, slaughter-houses, and churchyards, are much the same as they were, and their effects, therefore, are the same.

The mortality was higher in London than it was in the corresponding quarter of last year. Influenza was epidemic; and the mortality was raised during the weeks of March. 205 deaths were directly ascribed to this disease, which in ordinary seasons is not fatal to more than 50; and many of the 1612 deaths ascribed to bronchitis were the result of influenza. The epidemic has ceased, and has been slight, compared with that of 1847-48. Measles and hooping-cough have been more, scarlatina less than usually fatal. Small-pox was fatal in 275 cases, in the greater part of which vaccination had been neglected. Diarrhœa was fatal to 223 persons, dysentery to 30, cholera to 7. It is worthy of note, that the winter diarrhœa shows no disposition to decline. The deaths referred to cholera in the five quarters ending March 1847-51, were, 3, 9, 516, 8, and 7. Typhus has been more fatal than it was in the March quarter of 1850. The deaths by poison were 29, burns and scalds 100, hanging and suffocation 71, drowning 70, fractures and contusions 163, wounds 34.

The mortality was low in the South-Eastern, South Midland, Eastern, and South-Western divisions. Typhus raised the mortality at Maidstone, scarlatina and hooping-cough at Brighton, where the mortality was much above the average. The mortality was generally low in the Surrey and Sussex districts. Portsmouth and Southampton were unhealthy. at Southampton scarlatina prevailed. Measles and hooping-cough raised the mortality in Abingdon; measles and typhus in Wallingford. The mortality of Windsor, which has been recently drained, was much below the average; the deaths in the five quarters ending March 1847-51, were 132, 109, 114, 103, and 86.

In the South Midland counties, Brentford, Edmonton, Ware, St. Albans, Aylesbury, and Oxford were the chief districts in which the mortality was higher than usual. Small-pox prevailed at St. Albans among the poor, "who live in great numbers in ill-ventilated houses." Measles, hooping-cough, and typhus prevailed in Waddesdon, Aylesbury, in Winslow, and in Witney; measles and hooping-cough in Oxford. In Huntingdon low and intermittent fever prevailed. Seven deaths in the parish of Kings Ripton were ascribed to typhus; three-fourths of the population suffered from it. The want of drainage, and bad sanitary arrangements, are supposed to have produced the disease. In the sub-district of Wisbeach St. Peter the births registered were 81, the deaths 107. 51 deaths took place in the Union Workhouse; 16 from measles, 18 from typhus, and 17 from other causes! This great mortality in a public Institution requires investigation.

In the Eastern Division the mortality was high at Sudbury, Colchester, Yarmouth, and Kings Lynn, where measles and scarlatina prevailed. At Stow, 67 births were registered; the Registrar observes, that 20 still and premature births occurred during the quarter. Still births are not registered.

Plymouth, remarkable for its insalubrity, is almost the only district of the South-western Division in which the mortality is higher than in any previous winter quarter. Scarlatina, typhus, and hooping-cough have continued to prevail. At Morice in Stoke Damerel, the oldest inhabitant of the town is said to have died in her 103rd year. Such instances of longevity should never be admitted without scrupulous inquiry; they are rarely supported by valid evidence. Scarlatina raised the mortality in Taunton, Chard, and Wellington, Somersetshire.

The mortality has been high in many districts of the West Midland Division.

Scarlatina, measles, small-pox, typhus, hooping-cough, and bronchitis (influenza?), have been prevalent, and have often terminated fatally. The mortality was low in Herefordshire, and the southern part of Shropshire. Vaccination is neglected in Shrewsbury; and several deaths from small-pox have in consequence occurred. Wolverhampton, West Bromwich, Birmingham, Aston, and Coventry, experienced a considerable mortality. The deaths in Birmingham were 1252.

In the North Midland Division the mortality was low in Lincoln, although scarlatina and typhus prevailed there; it was higher than it was in the previous winter in Leicester, Nottingham, Derby, and Chesterfield; measles and hooping-cough prevailed in many parts of those counties.

The people of Stockport (in Cheshire, North-Western division) have their children vaccinated with a most laudable regularity, and the result has been an almost complete immunity from small-pox. The Registrar remarks:—

"I have registered one death from small-pox—that of a child, five years of age, which had lately been brought over from Ireland and had not been vaccinated. It is now more than three years since I registered a death from small-pox, out of a population of between 12,000 and 13,000, which I attribute to the appointment of public vaccinators, and the attention parents now pay to the vaccination of their children."

In the same county, the people of Runcorn offer an example of criminal negligence, which is a reproach to the religion which they profess and the country in which they live.

"Births, 132; deaths, 112. Small-pox has prevailed during the last three months; in the above number, 40 deaths are from that disease, and only 3 of the deceased had been vaccinated. There appears a great want of attention on the part of parents in not taking their children to be vaccinated. I trust that stringent measures will be adopted to compel parents to have their children vaccinated. The disease has been prevailing in this district five months, and at the present time very severely. There have been 11 deaths during the last ten days."

At Wigan the same negligence was observed. 139 children, under five years of age, died; and 25 were left destitute of medical advice. In Burnley 179 persons died; the cause of death was not certified in 40 instances, and 31 had no medical attendant. Small-pox, scarlatina, measles, typhus, or influenza were prevalent in Manchester, Prescot, Ashton, and Oldham. The same zymotic diseases prevailed in many districts of Yorkshire. The mortality was above the average in Bradford, Leeds, and Sheffield.

In the Northern Division we observe the loss of 27 lives by what it has too long been the practice to call vaguely an accident. The explosions in mines are now tolerably well understood; and, with proper care and good arrangements, could rarely or ever happen. Hooping-cough and bronchitis (apparently influenza) have raised the mortality in Newcastle-upon-Tyne; Bedlington and Morpeth have suffered from scarlatina and typhus; more than 50 persons suffered at one time from the latter disease in the lower part of Bedlington town.

The mortality in Wales was, generally, below the average Scarlatina and measles prevailed in Newport, Cardiff, Merthyr-Tydfil, and raised the mortality. Scarlatina also prevailed in districts of Pembrokeshire. 18 persons died of small-pox in Holyhead, Anglesey; only two had been vaccinated.

Cholera is scarcely mentioned in the Registrars' notes. The Registrar of Oldham records three deaths from English cholera. No trace of the great epidemic is left except the diarrhœa.

The Registrar-General observes:—"No pains should be spared to deprive another outbreak of half its terrors by sanitary measures.

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If the towns were supplied with pure water, the streets and houses drained, the slaughter-houses removed from the neighbourhood of dwellings, the dead buried in distant places, the progress of medical science, and well-ordered medical organization, would diminish the mortality not only from cholera, but from all other epidemics."

DEATHS *in the Metropolis for the week ending Saturday, May* 10, 1851.

Causes of Death.	May 10. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	511	336	195	1041	8700
Specified Causes	511	334	194	1039	8645
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	181	32	20	233	1632
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	3	22	7	32	477
3. Tubercular Diseases.	84	119	5	208	1633
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	42	41	38	121	1127
5. Diseases of the Heart and Blood-vessels	1	24	18	43	332
6. Diseases of the Lungs, and of the other Organs of Respiration ...	90	36	31	157	1305
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	27	20	17	64	578
8. Diseases of the Kidneys, &c. ...	1	1	7	9	79
9. Childbirth, Diseases of the Uterus ...	...	10	1	11	114
10. Rheumatism, Diseases of the Bones, Joints, &c.	...	8	...	8	86
11. Diseases of the Skin, Cellular Tissue, &c.	...	...	...	...	10
12. Malformations	5	...	...	5	22
13. Premature Birth and Debility ...	28	3	...	31	193
14. Atrophy	30	1	...	31	152
15. Age	...	...	41	41	462
16. Sudden	6	4	5	15	75
17. Violence, Privation, Cold, and Intemperance	13	13	4	30	179
Causes not Specified	...	1	1	2	55

TO CORRESPONDENTS.

No Lawyer.—Oxalic acid may unquestionably prove fatal by its action on the blood.

Mr. Stevens.—References to numerous writers who have found foreign bodies in the heart of man and of the lower animals, are made in Otto's "Compendium of Pathological Anatomy;" "Penada Saggi di Padova," Vol III., Part 2; "Ferrus Report Gen. d'Anat et de Physiol. Pathol." Vol. II., Part 2.

A Young Man.—We cannot interfere in the matter. The better mode of adjusting the difference would be to ask the assistance of a mutual friend.

Inflammatio.—A pretty complete analysis of Mr. Wharton Jones's excellent Essay was given in our Number for February 8th. We have reason to believe that our analytical reviews have given considerable satisfaction to our readers, but some works defy analysis, and others are not worth the trouble. A silly book may be passed by unnoticed; but those published for the sake of puff, which not only lower the author in the reader's estimation, but damage the Profession in the eyes of the public, are quite other things. They must be pilloried. We never pen an unfavourable notice without regret.

One whose Paper has not Appeared should take a peep into our Office, and then he would not be surprised at a little delay having occurred. We cannot accomplish impossibilities.

Amicus.—We are prepared.

Edin.—The wise man, when in authority, never exerts his power for the purpose only of showing that he possesses it. The act of the President of the College was arbitrary and illiberal,—in harmony, however, with his general conduct.

Mr. H. Thomson.—The papers in question are intended for the public; the "Medical Times" is intended for the Profession.

R. A.—The coroner ought unquestionably to have summoned R. A. Not long since we were in a Coroner's Court, to which A and B had been summoned; the evidence of A was considered sufficient by the coroner, and a verdict was returned. Before leaving Court, however, B expostulated with the coroner on the injustice of being kept in Court for two or three hours without payment, and *then* he received an order from the coroner for a guinea.

A. A.—There cannot be a doubt in the matter. The London University.

A Student.—The chief argument in favour of the study of botany, when we attended the class, was the use a knowledge of that subject might prove if we should ever be thrown on a desert island. It was duly impressed on us, that a knowledge of the characters and properties of Rosaceæ and Solanaceæ would teach us to shun the poisonous plant and to choose the harmless one. As we never intended to trust ourselves on the treacherous waves, unless on those that dashed to and fro between Dover and Calais, where no desert island was very likely to be found, we thought the argument a weak one. Now the arguments in favour of its study are very different, and, we think, sufficiently cogent. Dr. Lindley's works.

A Surgeon.—The man mentioned in the paper read before the Medical and Chirurgical Society, to which our Correspondent refers, is still living at Gillingham, in Kent. The wax model in the Museum at Fort Pitt is very life-like. The Museum is very rich in some subjects, *e.g.*, dysentery. It is well kept. The MS. notes of each case are easily found, and the attendant very civil.

R. Q. S.—The Editor of the Journal mentioned has no more to do with the "Medical Times" than has R. Q. S. himself.

Mesmer.—We do not believe one word of the statement. The crew of female mesmeric doctresses, one and all, are arrant humbugs. There is no truth in them. If Mesmer's patient insists on consulting Madame, we advise Mesmer to read the letter of M.D., published in 19th Volume of the "Medical Times." He will there learn the mode of sending the mesmerer to sleep, and of demesmerising his patient.

The Sydenham Society.

[To the Editor of the Medical Times.]

Sir,—Will you allow me, through the medium of your columns, to draw the attention of my fellow-members of the Sydenham Society to an extraordinary proceeding on the part of the Council of that Society, as reported in the last Number of your valuable Journal. It is there stated that there was a balance in hand of £700, while only two volumes had been issued to the members instead of four, which the large amount of subscriptions, £2100, would have, and ought to have enabled the Council to issue. As I was not a member in 1849, I know not whether there was, or was not, a balance at the close of that year; but I must protest against the system of retaining a portion of the annual subscriptions of a society and carrying it on to the funds of the next year, instead of expending the whole for the benefit of the members of the current year. The £700 thus left over would be more than sufficient to furnish the members with another volume, even at the extravagant rate of proceeding adopted by the Council; and I would urge on my fellow-members to join in demanding of the Council, that, out of that surplus fund, they issue a third volume for 1850, on penalty of having a large decrease in the number of subscribers. In these days, Sir, men, knowing the advantages of numbers, join or club their monies together that they may obtain a larger return for their outlay; but they are not willing, when they have taken this step, to have their object defeated by the proceedings of a job-making body. I am, &c.

London. A Member of the Society.

A Correspondent writes as follows:—

"Lest you come down with a Whack,
Lay your plans, Sir, in a crack;
First and foremost 'tis most proper,
Mount your harness well with copper
And better then the tin to grab,
Sport the brass *within* your cab."

[He will, perhaps, next week explain his meaning]

Statistical Society of London.

[To the Editor of the Medical Times.]

Sir,—In your Journal of May 3rd you were kind enough to notice a paper read by me before this Society on the 14th ult., in which notice your compositor has made an error of some importance. In speaking of the difference of mortality between London and England and Wales, you state, that "from 65 to the remainder of life it shows the same features as between 10 and 25, being 13 per cent. less," whereas I stated, that it was "from 25 to the remainder of life that the mortality of London was less 13 per cent. than that of England and Wales." The mortality of London from 65 to 75 was 36 per cent. greater than that of England and Wales, from 75 to 85 about 26 per cent, and from 85 to 95 only 9 per cent. greater.

I regret that until now I have been unable, from professional engagements, to bring this error to your notice. I am, &c.

12, St. James's-square. R. Thompson Jopling.

Our Bury Correspondent will obtain a more satisfactory reply by addressing the Secretary of the Apothecaries' Company.

A Correspondent has furnished us with a review in print of a botanical work. Perhaps he will now inform us with what object.

Scotus next week.

Vindex.—No hospital in London professes to grant gratuitous tickets. Perhaps, if properly represented, the case described might obtain exemption at any Medical School.

Communications have been received from—

Mr. Brougham, of Falmouth; Mr. Bucknill, of the Devon County Asylum; Mr. Holmes Coote, of St. Bartholomew's Hospital; Dr. Drury, of Camden-road Villas; Secretaries of the Royal Medical and Chirurgical Society; Dr. Burnett, of Alton; Mr. Simpson, of Bedford-street; Mr. Milton, of Jewin-street; Dr. George Gregory, of the Small-pox Hospital and Camden-square; Mr. Spencer Wells, R.N.; Dr. King, of Savile-row; A Member of the Sydenham Society; Dr. Knox; Mr. Brady, of Huddersfield; Mr. Braid, of Manchester; A Yorkshire General Practitioner; Chemicus; Mr. Baker, of Fulham; Mr. Hunt, of Bedford-square; Scotus; A Regular Subscriber; Vindex; No Lawyer; Mr. Stevens; A Young Man; Inflammatio; One whose Paper has not Appeared; Amicus; Edin.; Mr. H. Thomson; R. A.; A. A.; A Student; A Surgeon; R. Q. S.; Mesmer; M. D.; G., of Bury; Vindex.

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ORIGINAL LECTURES.

CLINICAL LECTURES ON SURGERY,

AT

GUY'S HOSPITAL.

By BRANSBY B. COOPER, Esq., F.R.S.,

Senior Surgeon to, and Lecturer on Surgery at, Guy's Hospital.

In my last lecture, Gentlemen, I laid before you cases, all bearing on one point—retention of urine from stricture of the urethra; and I then endeavoured to point out to you, not only the different operations recognised by surgeons for the relief of this distressing malady, but the means which should guide you in the selection of the most appropriate operation,—a choice which can be arrived at solely by a consideration of the nature of each individual case; that operation which is beneficial in the one, being useless and even prejudicial in another. To-day, the cases I have before me, and to which I shall proceed to draw your attention, although not of so attractive, yet are not of a less interesting nature, and will, I hope, so excite your attention as to prove fruitful sources of reflection and instruction to you.

The first case is that of

AN INDOLENT SORE, RESISTING ORDINARY TREATMENT, BUT SPEEDILY CURED BY THE ELECTRIC MOXA.

Henry S———n, aged 22, admitted into Luke Ward Sept. 11th, 1850, a strong, active, and robust young man, of sober and steady habits, residing in the country, says that, two years ago, whilst out rabbit-shooting, the gun of a friend, who accompanied him, accidentally went off, not more than two yards from him, and discharged its contents into his right foot; the shot passed obliquely through the soft parts beneath the right instep, injuring the os naviculare. Soon after the occurrence of the accident, he was brought to the hospital, and was under the care of the late Mr. Key from September, 1848, till April, 1849, when he left the hospital and went into the country for the improvement of his general health; the wound of the foot, not having, however, entirely healed. From this time until August, 1849, he still occasionally saw Mr. Key, and his foot got stronger and better, but never became quite well. He was afterwards, on account of Mr. Key's death, under a country practitioner, who directed him to apply some ointment, and afterwards poultices of linseed meal; but the wound, or sore, progressively increased in extent, until his re-admission into the hospital, Sept. 11th, 1850, when it was nearly the size of the palm of the hand, situated just below the inner ankle. The sore was of an indolent character, with the granulations below the surface, and with an inflamed margin around it. At first it was treated with carrot poultices, and the occasional application of leeches around it; more recently, he used the warm-water dressing; and has taken internally, first the decoctum sarzæ cum extracto sarzæ; afterwards the julepum ammoniæ sesquicarbonatis cum pulvere rhei composito ter die. There was a decrease in the size of the wound, but its improvement, however, was exceedingly slow.

Nov. 2.—It was determined to try the application of the electric moxa, a blistered surface, about the size of a crown-piece, was therefore made above the sore, and the zinc plate applied to it. The silver plate being placed over the sore, the two were connected by a copper wire, and the whole covered with moist lint.

Nov. 3.—There is a most decided improvement already in the wound, which has assumed a more active and healthy character.

Nov. 4.—The moxa having been applied about forty-eight hours, it was found necessary to remove it, as the zinc plate on the blistered surface excited a high degree of inflammatory action, which extended over the whole of the leg below the knee, producing pain, swelling, and redness, with an enlargement and tenderness of the glands in the groin. The original sore, however, has a more healthy appearance, and is evidently decreasing in size.

Nov. 11.—Has lost all pain and redness in the leg, and a slough has separated from the blistered surface to which the zinc plate was applied. The original wound has very much decreased in extent, being now little larger than a crown-piece. The granulations are healthy and slightly above the level of the surface of the skin. In the centre of the sore they are covered and protected with a delicate whitish layer of healthy pus, which does not extend to the edge, but leaves a uniform margin of small breadth; in which the gradual progression or extension of the cuticle can be traced.

Nov. 30.—The sore has nearly healed, being now not quite so large as a sixpence.

Dec. 7.—The wound occasioned by the application of the blister and zinc plate has entirely healed, and since then his progress has not been quite so marked and rapid.

Dec. 11.—The sore improved quickly again until yesterday, since when it has put on a somewhat unhealthy appearance, and seemingly has a slight tendency to spread. This may probably be attributable to his digestive organs being out of order. He was therefore ordered some julepem rhei co. of Guy's Ph., which consists of p. rhei, p. sodæ sesquicarb. et p. calumbæ.

Dec. 21.—The sore is progressing favourably again and is healing fast.

Dec. 26.—The sore has healed, having become entirely covered with cuticle. Presented cured.

This, gentlemen, is a case which has been, throughout, one of much interest. When first received into the Hospital, under the late Mr. Key, doubt was entertained as to the propriety of attempting to save the limb. The most important object was to save the patient's life, and next to this his leg; and, after a little consideration, Mr. Key decided on endeavouring to save both. Of the sagacity and justness of this decision the condition of the man now presents a happy illustration. More than two years ago he sustained an injury, the sequel of which has brought him under our present consideration; there was an extensive laceration of the soft parts on the inner side of the foot, accompanied with an injury to one of the tarsal bones. The attempt to preserve the limb being determined on, then came the difficulty of promoting a complete recovery of the contused and lacerated structures; a difficulty which has only just been overcome. Until the lamented death of Mr. Key the patient remained under his care, and gradually but slowly improved; after this, however, he became worse, until his re-admission into the Hospital, last September. We at first tried various different remedies; but the sore remained obstinate, and made but slight improvement; I was then induced, from the indolent character and appearance of the sore, to try the electric moxa, and it is wonderful what an immediate beneficial effect it had; and, although only applied for forty-eight hours, what a healthy disposition it induced, and how quickly recovery took place when once the parts were stimulated into healthy action.

The employment of the electric influence for the cure of indolent sores was first introduced into England by an American physician, Dr. Hull. He had previously observed its beneficial effects in such cases; and some years ago suggested its application in a case of a large indolent sore on the leg of a patient who was under my care in Stephen ward. This sore had existed for some time, and had resisted all ordinary treatment; it was submitted to electric influence by connexion with the poles of a small galvanic battery placed by the bed-side of the patient. In a very short space of time there was a most decided and marked improvement; but, owing to a little misunderstanding on the subject, which occurred with others officially connected with the Institution, the treatment was abandoned, and the patient some time afterwards discharged, unrelieved, from the Hospital. I venture to assume, however, from later experience, that had it been persisted in, an opposite result would have occurred, and the patient have been cured of his malady. The application of the electric influence, by means of a galvanic battery, was however so inconvenient, that, as a therapeutic agent, it would, probably, have sunk into oblivion, had not the invention of the electric moxa, by Dr. Golding Bird, rendered its employment ready and accessible for ordinary uses. There is no complicated apparatus required; no obstacle, no impediment to its application in the hands of the General Practitioner. All that is necessary is a piece of zinc and silver foil, each about the size of a crown piece, which, connected together with a few inches of copper wire, forms the metallic portion of the battery, which is completed by the intervention of the living tissues.

A blistered surface being made a short distance from the sore, the zinc plate placed on this, and the silver plate on the sore itself, a simple galvanic battery is at once formed, and a circuit of electricity established, passing in a direction from the zinc or generating plate by molecular decomposition through the fluids of the tissue to the silver or conducting plate, and thence re-conducted to the zinc whence it originated, by (according to the modern doctrine) a polar arrangement of the constituent molecules of the copper wire, thus completing the circle. The battery is excited by the chloride of sodium contained in the animal fluids, — the chlorine being set free at the zinc plate, combines with this metal, forming chloride of zinc, which, acting as an escharotic, gives rise to the eschar that is produced; whilst the sodium, being liberated at the silver plate, to which it gives up its positive influence, immediately decomposes water, combines with its oxygen, and sets free hydrogen. It is not absolutely requisite to denude the dermis by means of a blister previous to the application of the moxa; for if the cuticle be moistened with a solution of chloride of sodium or common salt, when the zinc plate is to be applied, a galvanic current is established, and chloride of zinc formed, which soon destroys the cuticle, and produces an eschar of the subjacent parts, if its application be persisted in.

It is doubted by many, and amongst these some of my colleagues, whether it is the electric influence or the counter-irritation which produces the beneficial results; and an experiment has lately been tried with the view of solving this question. A patient was received into the hospital with an indolent sore on the leg; counter-irritation was induced by the establishment of a blistered surface in the neighbourhood of the sore, and it gradually put on a healthy action, and ultimately after some time healed.

The remedial effect here was slow and progressive, and not immediate and marked, as in my case; and we well know that the rest and good diet which patients get on coming into the hospital, forms a most essential element in the treatment of many cases of granulating sores. I do not deny, that the beneficial effect may be in part due to counter-irritation; but I conceive it to be mainly attributable to the electric influence; and regard the case where counter-irritation alone was used as only a negative experiment, and not at all proving that electricity has nothing to do with the successful results attending the application of the moxa.

Quitting this subject, the next case I shall proceed with is one of

SYNOVITIS,

an inflammation of the synovial membrane of a joint, and a disease which frequently leads to the most serious and important consequences.

Phœbe Knott, aged 20, admitted into Guy's Hospital November, 1850. A single woman, of a phlegmatic temperament, and of a decidedly hysterical diathesis, occupied as a domestic servant, and residing at Lambeth. She says that, fifteen months ago, she ran the pin of a brooch into the inner side of her right knee; it bled considerably at the time, but caused little pain, however, and soon afterwards healing up, got apparently quite well. About six months afterwards, she became affected with a severe pain in the same knee, attended with considerable febrile disturbance; but her symptoms soon subsided under treatment as an out-patient of the hospital. From this time, until three weeks since, her knee continued quite well; it then became, without any appreciable exciting cause, swollen, painful, and inflamed. This condition gradually increased until her admission, when there was a diffused swelling all over the joint, extending also three or four inches above it. She complained of exquisite sensitiveness to the touch in the joint, above it, and in the popliteal region; great heat, redness, and a continual dull, aching, or gnawing kind of pain was always present; which symptoms were accompanied with a quick and irritable pulse, hot skin, dry tongue, loss of appetite, and restlessness. She could not walk or make use of the joint without intense suffering, and every time she was in the act of falling asleep, the affected limb started and awoke her.

Here, gentlemen, we have an instance of a local inflammatory action affecting the system at large, and producing a high degree of secondary or symptomatic fever. When first admitted I ordered her hirud. x. genu applic.

℞ Vini colchici, ziss.; mist. magnesiæ cum magn. sulph. (Guy's Ph.), ℥viij.; m. co., ℥j.; mag. ter die sum.

℞ Hydr. cum cretâ, gr. v.; pulv. ipecac. co., gr. viij. h. s. omni nocti;

and to rub into the knee the unguentum hydrargyri compositum; but this excited so much irritation that in a few days I was obliged to discontinue it, and substituted for it poultices of linseed meal. In a short time the knee became considerably better and much less tender to the touch, the redness disappeared, and the heat and pain diminished; but she became affected with a severe headache and symptoms resembling a paroxysm of hysteria. I now ordered her

℞ Liq. ammon. acet., ℥j.; liq. ant. pot. tart., ℥j.; tr. hyoscyami, ℥j.; aquæ, ℥vij. M. Capt coch.; ij. ampl. ter die sum.;

and to apply a blister over the popliteal region, as there remained great pain and tenderness there, especially over the insertion of the semi-tendinosus muscle. Since then she has been gradually improving, and at present, three weeks after her admission, she seems rapidly approaching a state of convalescence; her appetite is good, she sleeps well, and the knee has lost all pain, but its functions yet remain impaired.

From the history of this patient, I think we may pretty accurately infer, that the affection under which she has been labouring arose from the injury inflicted on the joint, fifteen months previous to her admission into the hospital, and that it is not the result of any internal or constitutional cause. The bleeding which is stated to have occurred at the time of the accident was probably sufficient to control or moderate the inflammatory action resulting from such an injury, but insufficient to completely arrest it,—sufficient, I say, to allay acute symptoms, but insufficient to obviate the development of that chronic state of inflammatory action which has insidiously gone on until the present time.

The symptoms which attend and point out the existence of synovitis are, increased heat, pain, swelling, redness, and tenderness of the affected joint, with effusion into the synovial sac, as indicated by fluctuation. In addition to these ordinary symptoms of inflammation, there is more or less loss of function or mobility of the part, accompanied also with general febrile disturbance. The disease, consisting in an inflammatory action of a serous membrane or closed sac, terminates in one or other of the common results of this form of inflammation. When encountered in its acute stage the most active and prompt measures should be adopted, with the view of at once cutting short the morbid process, and not allowing it to resolve itself from the acute into the sub-acute form, in which it but too frequently sets at defiance all the remedial means employed, and proceeds, if not to the permanent destruction, to the ultimate impairment of the function of the joint. No cases in surgery, I think, yield so unsatisfactorily to treatment, and afford so little credit to the surgeon, as chronic affections of the joints; and too frequently they terminate, even under the most judicious treatment, in a permanent deterioration of the joint.

The treatment I usually adopt in cases such as the one under consideration, is to administer colchicum with salines internally, and to employ topical depletion if necessary, conjoined with perfect rest and quietude. I may here remark, that I think I have seen the best effects, the most beneficial results, accrue from the use of colchicum in inflammatory affections of the synovial membranes, not only when associated with, or depending on, a gouty or rheumatic diathesis; but also in cases where no such dispositions exist. I therefore employ it, not for its specific influence against the gouty diathesis, but from its known therapeutic action, as that of a sedative, diminishing the force and frequency of the heart's action, and thereby relieving and moderating the inflammatory process. If, by the means adopted, a favourable result is produced, the inflammation is subdued, the parts revert to their natural condition, the effused fluid is absorbed, and the disease is said to terminate in resolution, or healthy action. This, Gentlemen, is the most favourable view of the question, but it unhappily too frequently happens that the disease terminates in one or other of the less propitious results of inflammation, and may lead to the entire destruction of the joint, if not to the death of the patient.

When the disease runs from its acute into its sub-acute form, and is accompanied with much effusion of fluid, some surgeons have recommended puncturing, to allow the latter to escape. But I strongly repudiate such practice, as dangerous and unjustifiable; we ought, I think, rather to en-

ploy counter-irritants and stimulating applications, combined with the internal use of resolvent medicines, to promote the absorption of the effused fluid. If, however, there be evidence of the existence of pus in the joint, indicated by heat, severe pain, considerable swelling and tension, acute sensitiveness to the touch or pain in moving the affected part, accompanied with a high degree of febrile excitement, the patient at the same time complaining of jactitation or starting of the limb, at the moment of dropping off to sleep, arising from the excited or irritated condition of the incident nerves producing a reflex action or muscular movement as the restraining influence of volition is being removed by sleep,—under such circumstances I deem it advisable to lay open the synovial sac, and afterwards endeavour to promote anchylosis, which must be looked upon as the most favourable termination. Puncturing a synovial membrane is, under any condition, a matter of deep importance; and, in my opinion, attended with more serious results than laying it open entirely, and destroying its functions as a secreting surface. It is, therefore, better to make a free and extensive opening for the evacuation of the pus than merely a small puncture.

In cases where anchylosis is seen to be unavoidable, it is of considerable importance that due attention should be paid to the position in which the parts are placed, so as to fix them at such an angle as to render the limb of most service in after life. Thus, if anchylosis of the elbow-joint be inevitable, the limb must be so placed that the hand will reach the mouth, on moving the arm at the shoulder joint; again, in the case of the knee, this joint should be fixed in a slightly flexed position, in order that, with a high heel, the patient may walk easily, and at the same time, when he sits down, his leg may not be stretched out straight before him, which would be exceedingly inconvenient.

Time, gentlemen, will not allow me to proceed further, otherwise I had intended to have drawn your attention to another case of synovitis, probably the result of a specific or gouty inflammation affecting the elbow-joint. I must, however, defer it until next lecture, when I shall commence with it.

LECTURES ON HISTOLOGY.

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS, LONDON.

By J. T. QUEKETT, Esq.,

Assistant-Conservator of the Hunterian Museum.

(Continued from page 503.)

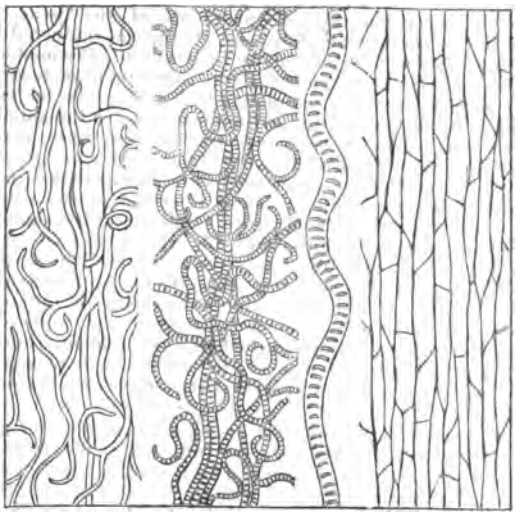
YELLOW FIBROUS TISSUE.

In the human body we have other structures besides tendons, which are composed almost entirely of white fibrous tissue; such are the periosteum, dura mater, etc.

The yellow fibrous element differs considerably from the white; it consists of large more or less branching fibres, of a yellow colour, and having curled extremities. It is found most largely developed, as above stated, in the ligamentum nuchæ of quadrupeds, and in the ligamenta subflava of the human spine. In the large Pachydermata, as the elephant and rhinoceros, it is frequently employed in the form of a belt or girdle, to support the abdominal parietes. In this specimen, from the ligamentum nuchæ of the sheep, *Fig.* 40, A, the fibres are of large size and yellow colour, and very frequently branch, their free extremities being more or less curled. In this, from the giraffe, *Fig.* 40, B, the same characteristic curled extremities are presented, but each fibre is marked with transverse striæ; when examined with a power of 500 diameters, the striæ, as shown by C, do not extend across the entire diameter of the fibre, but appear to be principally confined to its centre. The ligament from which this specimen was taken was 6 feet 2 inches in length before it was separated from its attachments; when detached, however, it immediately contracted to 4 feet, or about one-third of its original length; it even now possesses some degree of elasticity, but the power must be enormous to stretch it even one foot. The weight of the entire ligament was upwards of 8lbs, and the striped fibres are most abundant on the outer surface; more internally, plain fibres only are met with. It would appear, therefore, that the striped variety formed a connecting link between voluntary muscular fibres and those of elastic tissue.

Fig. 40.

A B C D



A modification of the yellow fibrous element constitutes the elastic coat of arteries; and I here show you a fine specimen taken from the aorta of a whale upwards of 50 feet in length, the diameter of the vessel being about 12 inches, and the thickness of the elastic coat 1½ inch. When examined microscopically, the fibres exhibit all the characters of those of elastic tissue, but their chief difference is in their minuteness.

Another kind of elastic tissue I now show you as it occurs in the form of a ligament to support the expanded wings of all our larger birds, such as the eagle, crane, heron, etc.; this specimen, which I have just detached from the wing of an eagle, is quite as elastic as a piece of Indian-rubber.

The last variety of this tissue which I shall notice, is that situated between the valves of Conchiferous Mollusca, its office being, as shown in this example from the oyster, to keep the valves open, thus acting in opposition or antagonism to the adductor muscle. In some shells, as the oyster, this elastic substance is placed internal to the hinge, in others, as the cockle, external; in the first, the expansive power of the compressed substance separates the valves, but in the latter, the same object is gained by the contraction of the hinge ligament; the structure of this form of tissue has been fully described by my late brother, in the 1st vol. of the "Transactions of the Microscopical Society."

AREOLAR TISSUE.

We now pass on to a mixture of the white and yellow fibres which forms a tissue most extensively used in the animal economy under the various names of cellular, fibro-cellular, and areolar tissue, the latter being the one now most usually employed. The older anatomists imagined, that by the crossing and recrossing of the fibres, a series of more or less round or oval cells were formed; these spaces, however, have no distinct wall-like cells, but are merely areolæ or meshes, the continuity of which is well proved in cases of anasarca and emphysema, and even in the process adopted by butchers in the case of calves, by the inflation of this tissue with air by the introduction of a blow-pipe.

The principal use of areolar tissue is that of connecting other tissues together, at the same time that it allows of greater or less freedom of motion between them; it forms, with few exceptions, the principal means of support to blood-vessels and nerves, accompanying both to their minutest subdivisions. It is largely developed in certain situations, as for instance, under the skin, where it has received the name of subcutaneous areolar tissue; under mucous and serous membranes it is in some cases very abundant, being then styled submucous or subserous, as the case may be. In the mesentery of small animals, the rabbit for instance, as shown in this diagram, the subserous layer is represented only by a few branched fibres, which, however, form the

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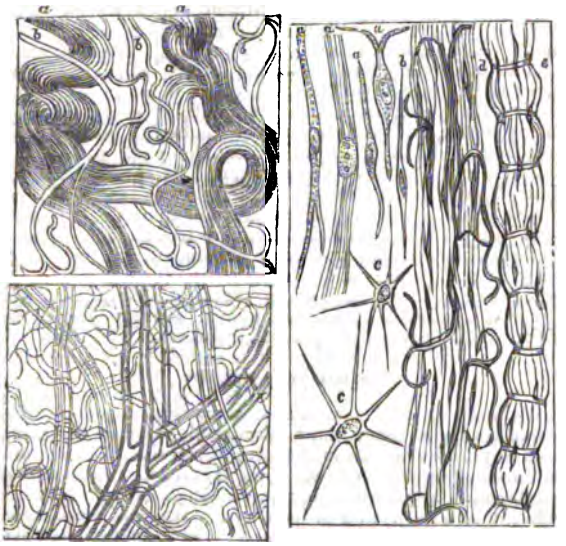
framework over which the serous membrane with its epithelium is stretched. In all these situations, in which it is normally found, it may be developed in abnormally large quantity, so as to constitute tumours, which under the skin often attain an enormous size. Most of those remarkable growths known as fibrous tumours, are composed of this tissue; they often make their appearance in the neighbourhood of glandular organs; this specimen has been described as a fibrous tumour of the breast; but, on minute examination, it turns out that the great bulk of the tumour is formed of hypertrophied glandular tissue, and the part that assumes a fibrous appearance, does nothing more than support the enlarged lobules of the gland.

When areolar tissue is examined with a power of 250 diameters, it will be found, as before stated, to be composed principally of white fibres, the yellow or elastic element being only occasionally seen. In this specimen from the pleura of the elephant (*Fig.* 41, A, *bb*,) a few yellow fibres are visible in the centre of the field; if, however, acetic acid be added to another portion of the same tissue, a remarkable change will take place,—the greater portion of the white fibres will disappear, and nothing but long imperfect oval cells or nuclei will remain; these, however, as shown by *d*, in *Fig.* 41 C, will indicate the direction previously occupied by the fibres. The yellow element undergoes no change when treated with the acid; these fibres will, therefore, stand boldly out, being as it were isolated from the surrounding white ones, and all their peculiar characters before described will be strikingly exhibited. In this specimen from the elephant, numbers of yellow fibres are evident; in all their characters, except their minuteness, they agree with those in the *ligamentum nuchæ* of the sheep, before shown you. When areolar tissue is growing rapidly, as in tumours, the cells from which it is developed are often well seen. Some of the principal varieties of these are represented by *aaa b cc* in *Fig.* 41, C.

A *Fig.* 41. C

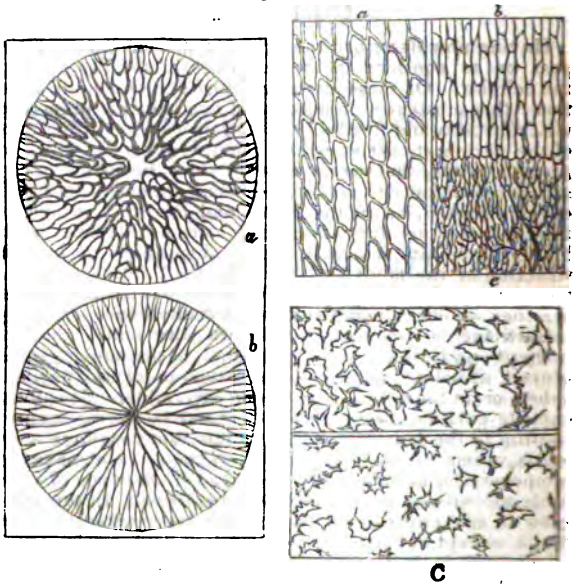


B

A peculiar form of areolar tissue is found surrounding the vessels at the base of the brain of the human subject and some of the lower animals; when acetic acid is added to it the white fibres, which were arranged in separate bundles, assume a tubular form, and the yellow element is seen surrounding them, either as a ring or as a spiral band, which has led some people to suppose that these were blood-vessels in an early stage of formation; such a specimen from the vessels at the base of the brain of a sheep as represented by *e* in *Fig.* 41, C.

I now pass on to demonstrate how simple membrane and fibrous tissues are supplied with blood-vessels, and the first example I shall take is that of the posterior layer of the capsule of the lens, which has already been described as a structureless membrane, but notwithstanding this it gives support to large blood-vessels derived from the *arteria centralis retinæ*, which pass forwards over the capsule as far as the *iris*, where they divide into two branches. These vessels can be readily injected in any young animal, but in the adult I have never yet succeeded in filling them, except in the case of certain reptilia, drawings of which, taken from well developed specimens of the frog, toad, newt, common English snake, and tiger boa, I here show you; in none of these animals do the vessels pass further forwards than what may be termed the equator of the lens; here they form a border composed of the largest vessels of the network, which are probably veins, and join those of the iris. Whilst on this subject, I will point out what I have observed as being the true structure of the *membrana pupillaris*, which, as you are well aware, is generally considered as a distinct membrane closing the pupillary aperture, and which, when injected, differs from every other known membrane in the peculiarity of the arrangement of its blood-vessels. In three specimens of injected capsules of lenses, which I shall show you in succession, the following peculiarities may be observed. In the first, with the naked eye, you will notice that the entire capsule is covered with vessels, those on the posterior surface as represented by *b*, in *Fig.* 42, A, being smaller than those on the anterior *a*, but when carefully examined with the microscope, the two sets will be found to communicate, these on the anterior surface *a*, are the vessels of the *membrana pupillaris*; it therefore appears that at one stage of developement of the lens, the whole capsule is covered with vessels, and if it should so happen that in the course of the dissection the anterior layer is detached from the posterior, we shall then have a membrana pupillaris; if, however, the lens come away entirely covered with vessels, no such membrane will be found. The vessels from the posterior capsule, as before stated, when they reach the iris, divide into two sets of branches, one of which joins the vessels of the iris, the other those of the anterior capsule. These points are readily seen in the specimens I now send round, from the eye of a kitten, a wolf, and a puppy, as well as in many others, which time will not allow me to show.

A *Fig.* 42. B



C

We now proceed to consider the vessels of white fibrous tissue; and the specimen represented by *a*, in *Fig.* 42, B, is a portion of the tendon of an ostrich; the arrangement of its capillaries is very like that of muscle, the vessels being straight, and connected together by transverse branches; each vessel runs in the areolar tissue between the bundles, but never amongst the white fibres themselves. The number of the vessels in a tendon is very small as compared with those of the muscle to which it is attached, and in all injected specimens (as in this portion of Diaphragm, or in this *Rectus externus* muscle from the eye of an ostrich, *Fig.* 42, B,) the precise point where the muscle *b* ends and the tendon *c* begins is readily perceptible, even to the naked eye, not only on account of the diminished vascu-

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laxity of the latter, but also by the difference in the arrangement of its vessels.

The vessels of the yellow fibrous tissue are few in number; their arrangement, as shown by D, in *Fig.* 40, is somewhat similar to those of tendon, but the connecting branches are not transverse, but come off at angles of about 40 degrees, so that the spaces enclosed by the vessels are somewhat diamond-shape or rhomboidal.

The vessels of areolar tissue, on the contrary, are of small size and very numerous; they follow the direction of the principal fibres, and, as a general rule, as shown in *Fig.* 41, B, three vessels—an artery with a vein on either side of it, run together; these make up a coarse hexagonal network, which is filled up by capillaries or single vessels. As areolar tissue supports both blood-vessels and nerves, it often happens that the blood-vessels of the sheath or neurilemma of the latter may be distinguished from those of the areolar tissue itself. In this specimen from the pig, the vessels of the neurilemma are plainly seen proceeding in a straight line across the object; their arrangement is so characteristic to a practised eye, that it may be pronounced to be a nerve, although all the nervous matter has disappeared in the drying.

Although, as above stated, areolar tissue is the ordinary tidus in which the capillaries as well as the vascular trunks run in the various organs and tissues of the body, still there are certain situations in which the capillaries are wholly destitute of this means of support; to such, the term "naked" has been applied by Professor Bowman; the situation in which he first detected naked capillaries being in the Malpighian bodies of the kidneys; the capillaries of the brain have no investment of areolar tissue these, also, may be termed *naked*. I have detected such capillaries in the interior of the glands of Peyer; in this specimen from the dog, which I now show you, the glands have been divided transversely, and capillaries may be noticed both crossing and forming loops in the interior of the gland, but having no investment or support of areolar tissue, the secreting cells usually found in these glands, no doubt, performing this office.

CARTILAGE.

Having now described the principal fibrous structures, I pass on to consider the second class in our Table; viz., the cellular. Of these, cartilage must first claim our attention; this substance, on account of two valuable properties, viz., elasticity and flexibility, is largely used in various parts of the vertebrate skeleton; its colour is generally white, or greyish white, but when kept for some time in spirit, it inclines sometimes to yellow. In some animals it forms the entire skeleton, as in the skates and lampreys, which, on this account, are termed cartilaginous fishes; but in the higher vertebrata it is only employed sparingly in the construction of the adult skeleton. In the fœtus it is the first tissue fully developed and with the growth of the animal, is either wholly or partially converted into bone.

Cartilage is usually divided into two kinds, the permanent and the temporary. The first, or permanent, is employed, as before stated, in the skeleton of cartilaginous fishes, or in the form of a membrane, either as a tube to enclose cavities, when it is called *membraniform*, or as a coating to the ends of bones, entering into the formation of joints, whence it has been termed *articular*. The second, or temporary form, includes the cartilage of the young of vertebrate animals, as well as all other kinds which, in process of growth, are converted into bone. All these varieties of cartilage, except the articular, are covered with a strong layer of fibrous tissue, termed *perichondrium*, this tissue, which is analogous to the periosteum of bone, serves as a support to the blood-vessels and nerves.

The simplest form of cartilage, when examined microscopically, is found to resemble the cellular tissue of vegetables. It consists of a series of cells of a spherical or hexagonal figure, capable, in some cases, of being separated from each other, and each one having a nucleus in its centre. In this condition it forms the *Chorda dorsalis* or rudimentary spinal column of the lamprey, and of the tadpole of the toad and frog.

In the form of a firm membrane, it is employed in the construction of the framework of the ears of small mammalian animals, such as the mouse, rat, bat, etc. In the bat, especially in the long-eared English variety, the cartilage consists of a series of hexagonal cells, each with a nucleus in its centre. At the edges of the ear, the cells are in a single layer; but in the thicker parts two or more layers are superimposed. This substance is precisely similar to certain forms of vegetable cellular tissue.

In the examples I have now given, no other substance than the cells has been alluded to; but the majority of cartilages will be found to consist of a matrix in which the cells are imbedded. This may either be perfectly homogeneous in structure, or granular, and not unfrequently fibrous; to this, therefore, I would give the name of intercellular substance or matrix. The lowest animal in which I have been able to meet with cartilage is the cuttle-fish. In this cephalopod it occurs in the form of a rudimentary skeleton; the cells (as shown in *Fig.* 42, C) are small, of a more or less irregular figure, like the cells of bone; and are imbedded in a structureless intercellular substance.

ORIGINAL COMMUNICATIONS.

PRACTICAL OBSERVATIONS ON THE TREATMENT OF PERMANENT STRICTURE OF THE URETHRA.

By ROBERT WADE, F.R.C.S.,
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There are probably few diseases that require greater skill and judgment in their management than obstructions of the male urethra. There are none, I believe, in which more mischief is done by rough handling, much gentleness and care being essential for their successful treatment. In its diseased state the urethra often becomes highly sensitive, and, should the introduction of instruments be then required, it is evident that lightness of hand and delicacy of touch are very necessary qualifications in the surgeon who has to use them. Although stricture of the urethra, when properly treated, in its early stage, is comparatively of slight importance; in its more advanced state, when, in fact, professional aid is usually required, it is frequently a source of great misery to the unfortunate sufferer, rendering his life truly wretched, and taxing to the utmost the skill, patience, as well as perseverance of the surgeon. As the end and aim of all our attainments should be the relief or cure of disease, I trust that a few practical observations upon the treatment most likely to be successful in many troublesome forms of urethral obstructions, may prove of some utility, more especially as such observations are the results of considerable experience in investigating the effects of different curative measures applicable to such affections. Permanent stricture of the urethra is essentially a surgical disease; for, although medicine may do much to mitigate suffering, by improving the general health when impaired, by allaying irritation, and by keeping the urine, which should be frequently tested, in as healthy a state as possible, the cure of the complaint can only be effected by the manipulations of the surgeon. The means adopted by surgeons for the removal of strictures of the urethra are—1st. Dilatation. 2ndly. The application of caustic. 3rdly. Division of the stricture, either from within, by the lancetted catheter, or from without, by perinæal incision. Dilatation is the most simple, and, in my judgment, the best method of proceeding where it is found to answer. It is the one usually adopted, and, when carefully conducted, causes generally but little pain or irritation. Many surgeons have their favourite instruments for effecting dilatation, some, giving a preference to the silver catheter, others, to the solid metallic sound, whilst the elastic gum and plaster bougies have also their advocates. When strictures will bear them without much irritation, metallic sounds or catheters, particularly the former, are, I believe, generally the best instruments to employ; indeed, in old hard strictures they are frequently the only efficient dilators. There are, however, many cases where their introduction either causes too much irritation, or cannot be effected, and in which the plaster bougie will be found of great value. The catgut bougie is principally useful in cases of retention of urine. I very rarely use the gum elastic bougie, as its extreme flexibility renders it difficult to know where the point of the instrument is pressing. The

conical bougie, which gradually tapers from within an inch or two of its point, has always appeared to me to be objectionable; for, unless of very small size, should it meet with obstruction in passing along the urethra, it will be almost impossible to know whether the point of the bougie or its increasing diameter, constitute the impediment to its advance. The intervals for the introduction of instruments, as well as the time they should be retained, must be regulated by the degree of irritability of the urethra and bladder in each particular case. Very little attention will be sufficient to instruct the surgeon what length of time it is best to allow an instrument to be retained, as also the proper period for its re-introduction. As a general rule, instruments should not be kept in the urethra less than from five to twenty minutes; and in old hard strictures, I usually let them remain from half an hour to an hour. Mr. Syme tells us that bougies should not be permitted to remain in the urethra more than one or two seconds; as, however, the bougie must be regarded as exerting a mechanical as well as vital action, I do not understand how it will be possible, by its retention for so short a time, to accomplish the dilatation of a stricture of any standing. The mere passing a bougie through the obstruction, I believe, will often increase the irritability of a stricture, when the retention of the instrument for a few minutes would have considerably diminished its morbid sensibility. As the treatment of stricture by dilatation is that which is usually adopted, I shall conclude my remarks upon that method by a few summary observations. As a general rule, the more gently and gradually dilatation is effected the more permanent will be the relief afforded. In the majority of strictures, especially when of long standing, silver catheters, or steel sounds plated, of a proper length and curvature, especially the latter, from their having more solidity than the former, are the best dilating instruments. Dilatation, by retention of catheters,—a treatment which has lately had its advocates,—should, as it appears to me, be employed only in a few cases of a particular character. My reasons for objecting to the general employment of that method are the following:—1st. That rapid dilatation, even when accomplished under the most favourable circumstances, according to my experience, is seldom so satisfactory in its results as when that process is more slowly effected. 2nd. That the prolonged retention of instruments is likely to cause no slight degree of urethral irritation and inflammation, which, in irritable habits, will very probably not be confined to the urethra, but affect the bladder also. To these inconveniences may be added the occasional occurrence of abscess in the prostate, or perinæum; and, perhaps, more or less condensation of some portion of the cellular tissue immediately external to the urethra, as well as constitutional disturbance of a more or less serious character. 3rd. This treatment requires strict confinement of the patient to his room, a low diet, and, frequently, a rather free administration of opiates, which, although they may be regarded as mere trifles by the rich and strong, are of no trivial import to him who must live by head or hand; nor are they to those whose vital powers have become depressed by long suffering. There are, however, some advantages to be gained by this plan of treatment; that, in some cases, notwithstanding the risks and inconveniences of the method, it should be adopted. In cases of retention of urine, where there has been considerable difficulty in the introduction of the catheter, it should be retained, if practicable, for a period of from twenty-four to forty-eight hours. When there are false passages, and some difficulty is experienced in getting an instrument into the bladder, the treatment by retention of the catheter will often prove of great advantage to the patient. In old, hard strictures, especially when long and irregular, the occasional retention of a catheter for a day or two will sometimes much facilitate their subsequent dilatation. In irritable strictures, when the introduction of instruments is usually succeeded by rigors, Sir B. Brodie recommends this method, having found that retention of a gum catheter, by protecting the irritated lining membrane of the stricture from the contact of the urine effectually prevented the occurrence of rigors. In similar cases I have, however, often succeeded in removing the irritability of the strictures by two or three very mild applications of potassa fusa. In concluding these few imperfect remarks upon dilatation, I must acknowledge that it appears to me almost impossible to prescribe such general rules as are applicable to the infinite varieties of strictures, diversified by individual peculiarities of constitution, and, consequently, requiring some modifications in their management. No man can possibly predict precisely what any urethra will bear until he has fairly tried its tolerance. With few exceptions, practitioners of the present day, in their treatment of stricture, depend almost entirely upon dilatation, to the exclusion of all other means, from the supposition that it is the only safe method of proceeding. It must surely, however, be admitted, that in the successful treatment of any disease the means employed should be adequate to the attainment of the end in view. Although dilatation, in the hands of a good surgeon, may succeed in the generality of instances, yet it will not do so in all; for cases not unfrequently occur in which other measures must be adopted, or many an unfortunate sufferer from urethral obstruction be left to drag on a miserable existence, and perhaps be eventually destroyed by the giving way of the urethra, and subsequent extravasation of urine. For the relief of such cases, caustic has been proposed and successfully employed by many surgeons of high character. I shall endeavour to place fairly before the Profession the result of my experience upon this method of treatment. It is not from any hastily-formed view upon this subject, from the attainment of success in a few instances, but from more than twenty years' observation of the effects of caustic in bad cases of stricture, that my conclusions have been drawn. The caustic potash has, indeed, proved to me of very great value in the cure of stricture in its most aggravated forms. Various escharotics had been used for the destruction of strictures, by Wiseman and others, long before the time of Hunter. In the following remarks, from Mr. Hunter's "Treatise on the Venereal Disease," will be seen the result of his experience of the application of the nitrate of silver to strictures:—"If the obstructions are anywhere between the membranous part of the urethra and glans, where the canal is nearly straight, on can easily be made so, it becomes an easy matter to destroy them by caustic; but if beyond that, it becomes then more difficult; however, at the beginning of the bend of the urethra, the obstruction may be so far removed as to admit of the passing of a bougie, or at least to procure a tolerably free passage for the urine. I have seen several cases where it was thought necessary to follow this practice, and it succeeded so well, that, after a few applications of the caustic, the bougie could be passed—which is all that is wanted. I look upon the caustic as a much safer method than using pressure with a bougie, on account of the danger of making a new passage, without destroying in the least any part of the obstruction." In another passage, Mr. Hunter observes:—"I have often tried this practice in strictures where there were also fistulæ in the urethra, and where the water came through different passages. Such cases are not the most favourable; yet I succeeded in the greater part of them, that is, I overcame the stricture and could pass a bougie freely. I have seen several cases of fistulæ of these parts, where the natural passage was obliterated by the stricture, in which I have succeeded with the caustic, and the fistulous orifices have nearly healed." Sir Everard Home, in his well-known work on Stricture, has strongly advocated the employment of the lunar caustic. He not only used it in aggravated forms of that disease, but indiscriminately in all urethral obstructions, with a boldness and to an extent that frequently caused great suffering, such as rigors, retention of urine, and sometimes profuse hæmorrhage. Sir Everard Home's work on Stricture has always appeared to me to be of great value; for, whilst the capabilities of the caustic in removing many bad forms of that disease are proved by a sufficient number of facts to convince all but the ultra-sceptical, its injurious effects are also stated with a candour well worthy of imitation. That the treatment by caustic was frequently adopted by Sir Everard in cases where the employment of milder measures would have been more judicious, and that it was pushed by him occasionally to an injurious extent, cannot be denied. That his recommendation of the employment of the nitrate of silver in all cases of permanent stricture, led, in many instances, to a fearful abuse of the remedy in the hands of others, must also be admitted. Mankind generally are apt to embrace extreme views, and because rigors, false passages, and sometimes debilitating hæmorrhages were found to result from the caustic treatment, or rather its abuse, a really valuable means of cure in many intractable cases of stricture was soon abandoned by the generality of surgeons. After the ample evidence of the powers of the nitrate of silver in removing many strictures that had remained impermeable to the

bougie, recorded by Hunter, whose truthfulness and accuracy of observation are unquestionable, besides the great number of cases of a similar character mentioned by Sir Everard, one would imagine that the *capability* of caustic to destroy many obstinate forms of urethral obstruction could scarcely be questioned by any rational being. As if, however, to prove how far professional scepticism can be carried, in a pamphlet on stricture, published by Professor Syme, we have the following observations:—"I do not hesitate to express my persuasion, that a real organic stricture cannot be removed by caustic; since, even admitting that the agent could be accurately applied, the destructive effect of the nitrate of silver is so limited, as to be quite inadequate to the purpose, while that of potass is so diffused, that, in the event of destroying the stricture, it must cause a worse one through the unavoidable loss of substance attending its operation, and the consequent contraction in healing. On the whole, it seems more probable to conclude, that in the alleged cure by caustic, there was no real stricture in existence, than to suppose that so improbable or rather impossible an achievement had been accomplished." (Page 52.) It appears probable, however, that since this passage was written, Mr. Syme has found out that there were surgeons who seemed more inclined to place confidence in the ample experience of Hunter, Home, and others, than in his own recorded "persuasion," that a stricture cannot be removed by caustic; for of Mr. Syme's personal experience of the caustic treatment, as he has given us no proofs, we may naturally conclude he has none to offer; which conclusion, it appears to me, is much strengthened by some observations in the *Monthly Journal of Medical Science*, for July, 1850, in which, I regret to say, the laws of common courtesy and liberality that should characterise all scientific discussions are so completely forgotten, that it might be imagined some enemy of Mr. Syme's had written them and appended a name so distinguished in the annals of surgery. In those observations even the dead are summoned from their graves to aid the author in his extremity; for we are there favoured with the perusal of some letters addressed to the grandfather of the present Mr. B. Bell. It might reasonably be supposed, that these letters, eight in number, thus disturbed from their time-honoured slumbers, contained ample evidence of the inutility of caustic in stricture, from men who had fully and impartially tested its curative powers in that disease. It turns out, however, that these letters were written by Sir E. Home's contemporaries and rivals in practice, who were opposed to his treatment, and consequently urged every possible objection against it. These antique documents have lately been hunted up by the present Mr. Bell, from some quiet depository where they had innocently reposed for nearly half a century, and presented to his friend Mr. Syme. It appears that the late Mr. B. Bell himself was not only strongly opposed to Sir E. Home's treatment, but that he also took some trouble to procure the opinions of surgeons who were favourable to his own views. What remedy, I should like to know, will have a fair chance of success in the hands of him who is strongly prejudiced against it? It surely would have been but even-handed justice in Mr. Syme, if he had at the same time also published a letter of Sir E. Home's to the late Mr. B. Bell, which appears in Sir Everard's second volume on strictures. A gentleman suffering from bad strictures had been for some length of time under the care of Mr. Bell, who, amongst other remedial measures, had also used the nitrate of silver, but without success. This gentleman, finding he got no better, applied to Sir E. Home. Sir Everard's letter is in reply to one from Mr. Bell, which contained an account of the treatment that had been adopted whilst the patient was under the care of the latter, and is as follows:—

"Sackville-Street, Sept. 19, 1799.

"Dear Sir,—The condemnation of my mode of treating strictures flattered me exceedingly, as it is evidence on record of my having acquired a more extensive knowledge of the disease than had been attained by the surgeons in Edinburgh. After such a decision success was hardly to be expected from the use of caustic in your hands; it will however, gratify a man of your humanity to learn that five applications of the armed bougie, without the aid of medicines, have enabled the patient to pass a full-sized bougie into his own bladder; and, as all his other complaints have left him, you will agree in believing that they must have been symptomatic of the stricture in the urethra.

"I am, etc., E. Home."

I know that many excellent English surgeons are in the habit of occasionally employing the nitrate of silver in bad cases of stricture, and often with successful results. Among others, it will be sufficient to mention the names of Bransby Cooper, Guthrie, Mackilwain, and Phillips. Several cases treated with caustic will be found recorded in Mr. Bransby Cooper's cases of stricture in Guy's Hospital Reports. Mr. Guthrie's Observations upon this method of treatment are so much to the point that I shall venture to repeat them here. Mr. Guthrie, after having alluded to the prejudices which have long existed against the caustic treatment of stricture, observes, "that, like most other prejudices, they have some foundation in truth, but it is the abuse of the argentum nitratum, and not the use of it, which has given rise to them. I honestly confess, that I dare not say to a stranger, whatever his case may be, and however successful a few applications of the caustic might be, that I meant to use it. I dare not do so until after a few visits, and we have more confidence in each other; perhaps, only after he sees that he does not make much progress. I should lose my patient if I did, who would go to another and might be told, that he had narrowly escaped the worst treatment in the world; an opinion he would not fail to repeat. Such is the prejudice against it among the younger men in London, that when a man says he has been cured by it, the remark is, How lucky you were to escape! Nevertheless, the argentum nitratum is a valuable remedy, when properly used in appropriate cases, and not abused. At some future time, when the prejudice which has arisen against its use shall have passed away, it will again take its place, with other means, as a very effective remedy in certain forms of stricture." In the latter part of Sir Everard Home's work, the following passages occur:—"I have had numerous opportunities of knowing that no return of the symptoms has taken place in fifteen or twenty years, although no bougie had been used since the cure was completed; and when the urethra has been examined after death, the part in which the stricture had been had the same smooth surface as the rest of the canal. In cases of failures, from the strictured part having become so hard and thick as not to be destroyed by the nitrate of silver, it is to be regretted that we have not a more powerful caustic, capable of being with safety applied to the urethra, since that is all that is required for their removal." Surely sufficient evidence has now been given to prove that the nitrate of silver may be used with advantage in some forms of stricture, and that it is not quite so inefficient in the removal of that disease as has lately been so confidently asserted. Although, in my own practice, I very rarely use that caustic in the treatment of stricture, yet many instances have come under my notice where it has been employed with advantage by others. It is, at present, the fashion to decry this remedy, apparently for no other reason than its having often been applied to an injurious extent, and that it will not cure all cases of stricture. But, what are the means devised by human skill, and dependent upon human judgment for their administration, that will not sometimes be abused, and fail in affording the desired relief. The most eminent surgeons have, in fact, been of late so prejudiced against the use of caustic in stricture of the urethra, that, when consulted in aggravated cases where it has been used, they have unhesitatingly ascribed every untoward circumstance which may have occurred during their treatment, to the injurious effects of that remedy. Truth compels me, however, to declare that I have witnessed much worse effects from the too forcible introduction of instruments than any caused by the application of caustic. I cannot but think that in so harassing a disease as stricture often proves, we can ill afford to reject any remedy that has been found useful. I shall now proceed to the consideration of the employment of potassa fusa in stricture, the only caustic besides the nitrate of silver at present used in that disease. To Mr. Whately must be ascribed the merit of having been the first to use the potassa fusa in stricture of the urethra, and of having done all in his power to make the public acquainted with its curative powers in that disease. From some cause or other, notwithstanding the strong recommendation of Mr. Whately, this truly valuable caustic has been less generally employed in urethral obstructions than the nitrate of silver. Before giving the result of my own observations regarding the efficacy of the potassa fusa in stricture, it is but right to state those of Mr. Whately. In his work, entitled, "An Improved Method of Treating

Strictures in the Urethra," we have the following remarks: —"In every stricture, before we apply the potassa fusa, we ought to be able to pass a bougie into the bladder of at least a size larger than the finest kind. This is necessary, to enable us to apply the caustic to the whole surface of the stricture, and likewise to put it into our power to remove a suppression of urine, should it occur during the use of the caustic. Put a small quantity of kali purum upon a piece of strong paper, and break it with a hammer into pieces, about the size of large and small pins' heads. Thus broken, it should be kept for use in a vial closed with a ground stopper. A small hole, about the sixteenth part of an inch deep should be made at the extremity of the bougie, which should be just large enough to enter the stricture. A large blanket pin, 2½ inches in length, with the head struck off, will answer the purpose, the hole being made with the point of the pin. Some of the broken caustic should then be put upon a piece of writing paper, and a piece less than half the size of the smallest pin's head should be selected, the particle cannot be too small for the first application. Let this be inserted into the hole of the bougie, and pushed down into it with the blunt end of a pin, so as to sink the caustic a very little below the margin of the hole. To prevent the kali from coming out, the hole should be contracted a little with the finger, and the remaining vacancy in it filled up with hog's lard. When the bougie has reached the anterior part of the stricture, it should rest there for a few seconds, that the caustic may begin to dissolve. It should then be pushed very gently about one-eighth of an inch, after which there should be another pause for a second or two. The bougie should then be carried forwards in the same gentle manner till it has got through the stricture. When the caustic bougie has passed through a stricture, it should be withdrawn to the part at which it was first made to rest. After which it should be passed very slowly through the stricture a second time. If the patient complain of pain, the bougie should be immediately withdrawn; but if not, we may repeat the operation by passing and withdrawing the bougie through the stricture once or twice more, which will take up, in the whole, about two minutes. It is essential that the bougie pass through the stricture at each application of the caustic. We ought, therefore, to pass the bougie we intend to use once through the stricture before the kali is inserted into it. At the end of seven days, the application may be repeated; and if the patient felt no degree of pain, a piece of kali a small degree larger than the first may be selected. The operation should be repeated till the contracted part of the urethra is dilated, if possible, to the natural size. We are, however, on no account to increase the quantity of caustic as we increase the size of the bougie. I do not in any case apply more of the kali purum at a time than a piece about the size of a common pin's head. Twelve bits of the largest size weigh one grain. I have in a few cases re-applied the caustic at the end of five days. There are some cases in which the contraction is so irregular, and its aperture so untowardly situate, that a bougie cannot readily, if at all be passed into it; others have likewise been described, in which it is impossible to pass a bougie through the strictures. If, in the former of these cases, a bougie with the kali cannot be passed into the stricture, or if it get through the stricture and yet do not destroy the irregularity, and it becomes necessary to apply a caustic to the anterior part of the contraction, I should certainly prefer the lunar caustic to the kali purum." From the result of no inconsiderable experience of the use of potassa fusa in many intractable forms of urethral obstructions which had resisted the ordinary means of treatment, I am convinced that the excellent effects of this caustic in the cure of stricture are but little known to the generality of surgeons. It was in impermeable strictures that I first had recourse to caustic potass, and very soon became convinced of its superiority to nitrate of silver in such cases. I found that to be effective in old, hard strictures, it was necessary to employ it much more freely than was recommended by Whately, and that this might be done with perfect safety. The caustic potash may be advantageously applied to strictures for two purposes: one to allay irritation; the other, to destroy the thickened tissue which forms the obstruction. When used in the minute quantity employed by Mr. Whately, I believe its action to be simply that of allaying irritation, as, when mixed with lard and oil, combined with the mucus of the urethra, it can scarcely have any effect beyond a mild solution of caustic which most probably causes a more healthy state of the lining membrane of the stricture. To insure the action of the potass, instead of being below the level of the hole of the bougie, it should be fairly exposed, having its points slightly projecting. The bougie should be marked as directed by Mr. Whately; and if the points of the caustic be covered with lard, there need be no fear of its acting before it reaches the stricture. When used in small quantity, of the size of a common pin's-head, (and less is seldom of any use,) unless a stricture be very irritable, its application usually causes nothing more than a slight sensation of heat, scarcely amounting to pain. The bougie should be gently pressed against the stricture for a minute or two if impermeable, and then withdrawn. When the caustic is applied to permeable obstructions, the bougie should be passed three or four times over the whole surface of the stricture. To impermeable strictures the caustic should be applied with greater caution than to such as are permeable; for, should retention of urine occur, it will be more easily relieved in the latter than the former. It usually happens that after one or two applications of the caustic, the bougie will be found to enter the obstruction. Before applying potassa fusa to impermeable strictures, every precaution should be used to guard against irritation. If convenient, the application may be made at bed-time; and should the patient have been subject to rigors or retention of urine, it will be best to administer an opiate injection about an hour before the operation. Contrary to what is generally supposed, potassa fusa, from its forming with oil and mucus a slimy saponaceous compound, admits of being more easily confined to the strictured portion of the urethra than the watery solution caused by the application of the nitrate of silver. This is one advantage in favour of the caustic alkali. Another, arising from this miscibility with oily substances is, that its action can be better regulated than that of the nitrate. It may either be used as a mild stimulant or as a powerful caustic. It appears to me, however, that the principal superiority of this caustic to the nitrate of silver, in the treatment of strictures, consists in its more powerful effect in removing hard strictures, and that, with perfect safety, and comparatively with but little pain. It has been previously stated that, when used for the destruction of hard, gristly strictures it must be more freely applied than recommended by Whately; but the quantity should be very gradually increased, and regulated according to its effects. Some of the accidents caused by the nitrate of silver, when used for the destruction of strictures, have arisen either from the slough which it produced having so completely obstructed the previously contracted channel as to cause retention of urine; or, on its separation, hæmorrhage to a considerable amount. From the tendency of the nitrate of silver to produce adhesive inflammation, it is probable that the coagulable lymph, caused by its free application, may form no slight barrier to its destructive effects. This tendency, I think, may in some degree account for the great number of applications of this caustic which were required in some of Sir Everard Home's cases.

(To be continued.)

COMMENTARIES ON CONVULSIVE DISEASES.

By CHARLES BLAND RADCLIFFE, M.B.,
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(Continued from page 371.)

III. OF CERTAIN ULTERIOR CONSIDERATIONS RELATING TO THE PATHOLOGY OF CONVULSION.

1. In our previous papers we have found reason to conclude that the predisposition to convulsion is marked by debility or prostration of the system, and that the attack itself is accompanied by signs similar in character, but more exaggerated in degree; in other words, we have found reason to conclude, that convulsion is dependent upon a diminished supply of vital force *in* and *to* the muscles. We had already arrived at the same conclusion in reference to the phenomena of healthy muscular contraction in a work recently published under the title of "The Philosophy of Vital Motion;" for here we had found that the contracted condition of all organic tissues,

and of true muscle among the rest, is induced by ordinary molecular attraction upon the abstraction of some agent or agents which had previously counteracted this state,—the shortening of a muscle, in fact, being precisely similar to that which takes place in a bar of iron when its temperature is reduced, instead of being, as we have been taught to believe, the effect of some active stimulus whose direct operation was to induce contraction. So far as we can see, therefore, the result at which we have arrived in these papers is borne out by the dictates of physiology as well as pathology,—by the general law of muscular action, as well as by certain isolated and imperfectly understood phenomena of disease; but as the facts upon which the higher generalization rests are too long and complicated to be introduced here, we are unwillingly obliged to refer the reader to the work in question for all further information. (a)

It is not sufficient, however, to say that convulsion is connected with debility and prostration, except we can account for the occurrence of this phenomenon in some cases, and the absence in others; and it remains, therefore, that we endeavour to point out the special as well as the general characteristics of this state.

What, then, we may ask, is the ultimate idea at which we can arrive in the investigation of this pathological condition? Is it distinguished by any local affection? That it is not, would appear to be evident in the mere fact, that no one single affection is to be pointed out as a constant and unvarying accompaniment, as well as from other considerations which have been already entertained. Upon this point, indeed, we owe the highest deference to the first physiologist of the age,—but at the same time we must say, that when Dr. Marshall Hall divides convulsive affections into *centric*, or those which refer to the spinal cord for their origin, and *excentric*, or those which originate elsewhere, he is virtually no longer the advocate for the exclusive claims of that portion of the nervous system with which his name stands connected, and will stand connected so long as physiology is a science. But, be this as it may, we have stated the ground upon which we venture to found our own opinion, and upon this we must stand or fall.

And if there be this absence of any local affection which can give speciality to the convulsive disorder, is there some general characteristic which we have not yet noticed? That there is, and this a satisfactory one, will appear, if we give the subject a little consideration. Thus, we find a remarkable diminution in the contents of the vascular system at the time of the seizure, which diminution would appear to be intimately connected with the subject in hand. Persons apt to tremble in the cold, will find, if they pay proper attention, that the first consequence of the exposure is an abundant secretion of urine, and an almost irresistible necessity to empty the bladder. It is well known also, that a seizure of hysteria or epilepsy is generally ushered in by a similar copious secretion and discharge; and that it is the same in the initial rigors of fevers. Again, women are most prone to hysteria after copious menstruation; and epileptoid convulsions are the direct consequence of excessive hæmorrhage. In cholera the urine is suppressed, but in place of this, there is an abundant serous discharge from the bowels; and in the subsultus of the last stages of fever we have most generally a free colliquative diarrhœa. In fact, wherever there is convulsion, we find that the vessels have been emptied to a greater or less degree, either by natural or unnatural secretions, or by direct hæmorrhage.

Now, there are certain reasons by which we are led to suppose that this change is intimately connected with muscular contraction. Filling of the vessels of erectile tissue, for example, is as necessary to the state of turgidity, as emptying to the return to the quiescent condition,—in other words, the vessels must be emptied, in order to allow a state of contraction in the irritable fibres of the vascular coats and interstitial spaces. It may be objected, indeed, that this contraction is not that which takes place in muscular structures; but, at the same time, it is to be remembered, that there is a complex vascular web in muscle which differs but little from that which forms the basis of erectile tissue, and which, therefore, may be supposed to be affected in the same way by the removal of the blood, and also that the fibrous parenchyma in each case is allied by so many intermediate gradations, as to be in reality but varieties of the same irritable fabric. The illustration, however, may be admitted, without contending for the analogy, and from it we may understand, in some measure, that a full state of the muscular web of vessels may oppose a mechanical bar to contraction in the parenchymatous fibres, and that emptiness will facilitate, if not induce this state.

Here, then, we may perhaps find *one* reason why convulsion does not always attend debility or prostration. At times, for example, a person liable to hysterical fits, being overcome by the sudden communication of some painful intelligence, may fall down in a state of syncope; whereas, if the disclosure had been made gradually, the kidneys, or skin, might have acted freely, and (the vessels having been emptied to the requisite extent) convulsion, and not syncope, have been the result. Again, an epileptic may fall down in coma instead of convulsion, and still the reason be that the suddenness and extent of the disturbing impression has not allowed time for the vessels to part with any of their contents.

It does not concern us in this place to inquire into the ultimate cause of the change of which we have been speaking; but it is worthy of remark, in passing, that it may depend upon a contraction in the fibrous elements of the vascular coats, by which the internal capacity of the vessels is rendered insufficient to hold their former contents; the contraction itself being analogous to that which takes place at a later period in the interstitial fibrous textures, and referring to the same causes for its origin. In this way of regarding this phenomenon we gain, moreover, some light as to its probable importance, for the emptying of the vessels, whether through natural channels of secretion or by accidental outlets, may be indicative of contraction—*convulsion* in the fibres of the vascular coats, or in the tunics of the ultimate cells. In fact, it may be an initial phenomenon of the convulsive attack.

2. The tendency to periodicity in many convulsive affections is a subject of great interest, and we must not pass it by in silence. At the same time it is one of such obscurity that, at best, we can only hope to throw out some hints which may help to future investigations.

It is no difficult matter, however, to perceive that there must be some law of periodicity in health, and by investigating this we shall prepare ourselves to cope with the confused and apparently anomalous phenomena which are witnessed in disease; indeed, this is the only true method of inquiry of which we can avail ourselves. Let us begin, then, with the common diurnal changes of sleep and wakefulness, and inquire into the causes and agencies which operate here. In doing this we are, at first, disposed to confine our search to the body; but eventually we are obliged to pass to a wider field. The fact, indeed, that innumerable myriads of plants and animals wake and sleep at the same moment, is a proof that these states refer to a common cause, and not to one which is peculiar to each individual; and this conclusion is borne out by the consideration of a single case. In the sheep, for example, wakefulness commences at dawn and continues until nightfall, and sleep is measured with equal exactness by the period of darkness. The one condition is short or long according to the day, the other according to the night,—there being a sliding change by which this relationship is constantly preserved. Under these circumstances, therefore, it is scarcely possible to refer the sleep to exhaustion consequent upon waking, for it is short and light after the accumulated exhaustion of a long summer day, and profound and continued in winter, when the length of the day and the degree of weariness are reduced to the lowest limit. In other words, the times allotted to renewal and waste are inversely related to each other, or nearly so; and hence it is difficult to suppose that either of these processes is the sole cause or effect of the other.

And if the efficient agents for which we seek are not to be found in the animal itself, where are we turn? Are we to look for them in those grand changes which take place in the heavenly bodies, and which affect the whole creation at one and the same time? That we are, is to be argued, perhaps, from those changes in the economy which evidently refer to this source for their cause. An ordinary plant, for example, becomes bare and dead at the end of summer and remains in this state until spring; and that it is the returning light and warmth which bring about the changes which take place at this time, is evident in the fact, that the same plant continues to flourish throughout the year in a more genial climate. A common squirrel becomes torpid and

(a) "The Philosophy of Vital Motion." London: J. Churchill, Princes-street, Soho. 1864.

motionless when the country is wrapped in snow and ice, but in winterless regions it never loses the capacity of active existence. As we pass from southern to northern latitudes, we further find, that animal and vegetable life becomes less energetic in exact proportion as the solar beams lose in lustre and intensity, and, that this loss is the cause of the difference, may be argued from the changes which take place in a wintery country where the revolutions of the heavens have placed it in more friendly relation with the sun, for then the plant recovers its leaves and flowers, and the frozen life once more begins to throb in bosoms which had long been without sense or feeling. In this way, indeed, we learn that there is a certain vivifying influence in the sunbeams by virtue of which life rouses into activity, or sinks into a state approaching to death, or death itself, according to the changes which take place in summer and winter; and hence it is no unphilosophical deduction to presume, that similar changes mark the daily periods of the heavens, and that the presence of the sun is *one* cause of wakefulness, which state, when compared with sleep, is expressive of a high degree of vitality; and, for the same reason, the absence of this luminary *one* cause of that less vitalised condition we call sleep.

To this view, however, it must be admitted that there are sundry apparent objections, and of these the chief are, the nocturnal waking of some animals, and the extreme irregularities in man himself.

As to the first objection, however, it must be stated, that our knowledge of natural history is not yet sufficiently accurate to allow us to ground any final conclusions upon it. We know, indeed, as a general rule, that these animals lurk in holes and caves during the day time, away from the light and heat of the sun; and we may conjecture further, that light is not inimical to wakefulness in their case; for, although afoot in the evening and early part of the night, yet they slink away to their dens before morning, and (for anything we know to the contrary) they sleep as soundly during the latter part of the night as the animals which wake in the daytime.

Nor do the irregular habits of man afford any serious difficulty if we consider the peculiar circumstances in which he is placed. The shepherd, for example, when following his calling upon the hills, sleeps and wakes with his flock; and, at other times, when he seems to conform to a different law, it is not difficult to detect a reason for this. When he wakes after sunset he enjoys in all probability the warmth and light of the fire-side, with many other genial influences, and so experiences in himself what may compensate in some degree for the withdrawal of the solar rays, and counteract that disposition to sleep which otherwise would have overcome him at an earlier period. That this may be so we may argue from what we see in the common hot-house, where not only our own plants, but the more delicate denizens of tropical countries continue to flourish, when all without is wrapped in snow or ice, or from the history of the common fly, which drags on a half-existence in the kitchen after all its kindred have disappeared from the rest of the house. In the shepherd, moreover, there are irregularities in regard to the character and times of meals, which must affect his economy, and make him more or less sensible, as the case may be, to the cosmical influences which predispose to sleep or wakefulness. Thus the irresistible drowsiness which is felt under intense cold when the system is not properly fortified by food, shows that the food is productive of an influence by which he is enabled to supply in some measure the want of the solar stimulus. It is impossible, therefore, that there should be such irregularities as those of which we speak without some perturbation in the workings of that periodical law which is impressed upon the economy by the changes of the heavenly bodies. We may argue, also, that this is the true explanation from the disappearance of these irregularities when the supposed causes of disturbance are partly obviated;—thus it is, that in infancy and early childhood, sunrise (or rather the opening of the window-curtains) marks the hour of waking almost as exactly as in the canary, whose cage hangs in the nursery. Many additional considerations will suggest themselves to the mind of the reader, and we would willingly have dilated upon them under other circumstances; but sufficient has been said to direct attention to the proper method of inquiry, and not only so, but (as we would presume) to allow us to argue, that the main cause of the periodicity of sleep and wakefulness, and other diurnal phenomena, is to be found in the revolutions of our planet upon her axis, any seeming irregularity being produced by the disturbing influence of agencies under our own control, which agencies supply vital force, and so enable us to keep alive when the grand natural source and fountain of vitality—the sun—is withdrawn.

The same mode of inquiry will enable us to understand that the monthly movements of the economy, in spite of seeming irregularities, are chiefly ascribable to the moon. It is evident, for example, that the period of menstruation is not cotemporaneous in all women, neither is it always correspondent with any certain age of the moon in the same woman; but the arguments we have already used will show that this is the necessary consequence of the differences of diet and habit which prevail. If these be corrected, as they are to a certain extent in large asylums, the conformity is so great, and so distinctly related in all to the same age of the moon, as to lead us to conclude that any difference would altogether cease, if the habits and diet were adjusted with a little more accuracy. Another reason for confusion in these matters is found in the careless habit of referring to the moon alone, as if she were the sole orb which acted upon the frame; whereas, to arrive at any correct result, it is evident that she must be considered as associated with, and assisted or antagonised by, the sun; for as the oceanic tides are not to be explained without taking into consideration this conjoined agency, neither are the ebbs and floods which stay the streams of animate nature.

And, finally, any remaining obscurity as to the chief cause of diurnal or monthly periodicity is made to disappear when we consider the vital changes which preserve a yearly period, and keep pace with the summer and winter; for in this case there can be no manner of doubt that the changes are mainly dependent upon the seasons; indeed, so little individual energy is there in plants or in the lower animals, that they may be said to live and die in mute obedience to the outer necessity.

In considerations of this nature, we find the clue to the interpretation of the darker and less intelligible phenomena of periodicity in disease; and though much undoubtedly remains to be done before the subject can be satisfactorily explained, we may see enough to anticipate the result which will be obtained when we possess a greater number of accurate observations. We can understand, indeed, that the wonder is, not that there should be periodical laws in convulsive or other affections, but that they should be so obscured; and as the irregularities of diet and habits, with the thousand nameless things to which man is subject, produce equivalent disturbing impressions, there is no longer room for this wonder. Indeed, when we find that a convulsive attack is most likely to happen at night, this is what we, should anticipate from the previous remarks, if, as we have endeavoured to show, these affections are significant of a lowered state of the vital powers; or when we find that the fits are more numerous and severe in winter, this is equally the consequence of the same premises.

Above all, however, in the attempt to comprehend the spring of periodicity, we must be careful not to neglect those vital influences which are seated without the body. We must bring to the task the enlarged views of Mead and some of the elder physicians, as well as the microscopic and chemical lore of the present day; and we must learn to consider the heavenly bodies not merely as ornaments of creation, but as vital necessities in existence. For in this way alone can we hope to obtain any exact knowledge in this or any other of the profounder problems of medical science.

4, Henrietta-street, Cavendish-square.

(To be continued.)

KOUSSO IN TÆNIA.

I. By HENRY H. TAYLOR, Esq., M.R.C.S.E.

Captain J. B., aged 32 years, being the subject of tapeworm, applied to me some four years back. The male fern, and afterwards turpentine, were taken with great benefit, he having passed a considerable portion or length of the worm. He felt his health and spirits so much improved that he supposed he had quite rid himself of the enemy. Within the last few weeks, however, he has suffered so much from giddiness, together with a slow pain and heat in the

eyeball, (two symptoms I almost look upon as peculiar to this worm,) excessive nervousness, with irritability and great depression of spirits, together with the usual symptoms of worms, that he again sought my advice. The kousso being so strongly recommended, I determined on using it; accordingly obtained a dose of six drachms from Mr. W. Hooper, operative chemist, London; prepared my patient for its use by abstaining from all solids for twenty-four hours, at the end of which time a dose of castor oil was taken, which operated freely the following morning. The kousso was administered in divided doses, according to the printed directions with it, and in six hours the worm was expelled, measuring upwards of eighteen feet.

Dishopwearmouth.

II. By STEPHEN BROUGHAM, Esq., M.R.C.S.

Mrs. O., of Falmouth, aged thirty-one, of weak and delicate constitution, and much emaciated, has suffered for many years from a sinking pain and weakness at the pit of the stomach and left side, which was generally relieved by a crust of bread or any other nutriment. Was under medical treatment at Bath and Bridgewater, for a "stomach complaint and wasting," but never derived much decided benefit, and at one period the left lung was supposed to have been diseased.

Discharged several small portions of tapeworm about three years since, varying from one to two inches in length, when her medical attendants had recourse for a long period to the ordinary anthelmintic remedies usually administered in such cases, such as large doses of turpentine with castor oil, the male fern, &c., &c., and took immense quantities of carbonate of iron.

Seldom exceeded a week or ten days without expelling a small portion of the worm, excepting twelve months since, when about one yard was discharged alive—no head.

I was consulted by Mrs. O. the early part of last month (April), and having strongly recommended the kousso, I procured an ounce from Mr. Keating, St. Paul's Churchyard.

April 22.—Mrs. O. took ʒss. of kousso in the morning, fasting, having taken castor oil the previous day, as well as being on a low diet. Another dose of castor oil was taken the following morning fasting, and about two hours afterwards two portions of the worm were discharged, one measuring two yards and a half, the other one yard and a half, each dead, the latter having a head.

On the 24th April, (two days afterwards,) another ʒss. of kousso was administered in the morning fasting, and castor oil the following day, but no appearance of worms.

It is evident all other remedies proved inefficient until the kousso was administered, and that it killed the worm before it was expelled; whereas the other medicines only discharged small pieces, and those were invariably alive and without the head.

Mrs. O. felt little or no inconvenience from taking the kousso, and has had no return of the "sinking pain and weakness of the stomach," since the expulsion of the worm.

May 8.—Mrs. O. now considers herself in better health than for the last ten years; is already gaining flesh, and the countenance and general appearance much improved.

Falmouth.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

BY

W. BENHOUSE KIRKES, M.D.,

Medical Registrar,

AND

HOLMES COOTE, Esq., F.R.C.S.,

Demonstrator of Anatomy in the Medical School.

THERE is perhaps no medicine concerning which so much has been said and written, as mercury in the treatment of the venereal disease. In the works of different surgeons, can be found nearly every possible shade of opinion, from that which pronounces the mineral a specific, to that which would rank it as a poison. Both these extreme views are prejudicial, and, of the two, perhaps the first is the more so; for it has led to the excessive and repeated administration of mercury, not only by surgeons, but likewise by non-professional persons, in the belief that just in proportion to the quantity taken into the constitution, so is the rapidity of cure of the primary ulcer, and freedom from risk of secondary disease. There can be no doubt that the sooner a primary ulcer is cicatrised, the better in every way is it for the patient; consequently, that mode of treatment is to be preferred, which effects the speediest cure. But the ulcer once healed, and all surrounding hardness having disappeared, the continuance of the mercurial course is productive of no good; but may induce a state of constitution peculiarly favourable to the development of secondary syphilis in its worst forms. In 1843 I took the histories of a number of consecutive cases of secondary and tertiary syphilis as the patients applied at the hospital. There was scarcely one who had not been freely salivated; in many instances the salivation had been repeated. The observation illustrated the truth of the remark, that with the removal of the obvious disease the beneficial action of mercury ceases; that its prolonged administration, so far from affording additional security, may place the patient in a positively worse position than he would otherwise occupy, by injuring his general health. The opinion entertained by Astruc, that of the remedies employed for the cure of syphilis, mercury is one of the most valuable, is more correct than that of Hunter, who says, "If there is such a thing as a specific, mercury is one for the venereal disease." Certainly its very free employment has frequently preceded and totally failed to arrest the course of the most severe cases of constitutional syphilis.

William L., cabinet-maker, a tall, thin, sallow-complexioned man, of dissipated habits, has twice suffered severely from venereal disease, for the cure of which he underwent profuse salivations. Being a married man, he entered into particulars respecting his complaint very unwillingly; but confessed to having experienced pains in the limbs, especially severe at night, and to having had an eruption; a cicatrix, the size of the open hand, over the right elbow and neighbouring part of the upper arm, indicated the situation of a previous phagedenic ulcer. Between the first and the second infections he married, and communicated the disease to his wife, who left him, and returned to her friends for the space of one year. After living with her again, he shortly managed to contract gonorrhœa, which was followed by buboes in each groin. That in the right burst; that in the left was opened, and discharged a quantity of thin purulent fluid, mixed with blood. He became much reduced in strength, suffered from night-sweats and loss of appetite. After a time he went into the country, and has not since been heard of.

The wife, aged 30, a handsome young woman, was first infected by her husband one year after her marriage. She had slight excoriations, which soon healed, and discharge, which lasted for about twelve months, during which period she lived as a single woman with her family. Upon returning home, she had connexion with her husband, whom shortly afterwards she found to be sufferring from gonorrhœa. She again suffered from profuse discharge, and her husband, being desirous of quietly effecting a cure in both, procured some blue pills, and a quantity of the strong mercurial ointment, both of which remedies were freely employed. Salivation was produced very slowly in the woman; she took mercury for a long time before any sensible effect on the constitution was produced. The discharge from the vagina remained in much the same state. The salivation was followed by pains across the chest and in the limbs; she lost appetite, and became emaciated. Then an eruption, which she describes as tubercular, made its appearance over the chest, face, and upper extremities; mercury was again freely given. She was seen eighteen months from the commencement of the disease. There were numerous encrusted ulcers about the face and limbs; and she suffered from severe nocturnal pains. There was profuse discharge from the vagina. Examination of the os uteri by the speculum detected an excoriated and partly ulcerated surface, bounded by an irregular border of thickened epithelium. Under the administration of iodide of potassium, sarsaparilla, and opiates, and the proper regulation of diet, the integument got into a healthy state. The discharge from the vagina lessened considerably, but did not entirely cease.

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She then went to the sea-side, where she remained several months quite well; but, upon her return to town, the eruption again made its appearance. She took bark in different forms; but there broke out over the whole body a multitude of pustules, which passed into ulcers covered by prominent dark scabs. She again got well under the administration of iodide of potassium and sarsaparilla. In about four months, the disease re-appeared. Upon this occasion an ulcer formed on the right ala nasi, which was partially destroyed. In course of time the iodide of potassium lost its effect, and the bi-chloride of mercury, in tincture of bark, was substituted. The intervals between the successive eruptive attacks became shorter, until the patient, now pale, haggard, and disfigured by scars and incrustations, was unwilling to expose herself in public. Having been reduced from comfortable circumstances to absolute poverty, she procured admission into another hospital, where, in addition to her existing complaints, she suffered from severe attacks of diarrhœa. Information was received that she died in the hospital from gradual exhaustion. The body was not examined.

There are some, on the other hand, who regard as mercurial many of those symptoms commonly described as syphilitic. They would limit to too narrow a class of cases the administration of this medicine, and expose themselves perhaps to Hunter's reproof, that their treatment of it illustrates "the ungrateful and unsettled mind of man." If accurate careful inquiries be made of patients, it will soon be seen that rupial eruptions, phagedenic ulcers, enlargement of the testicles, and inflammatory affections of the periosteum and of the bones,—symptoms which are pronounced by many without hesitation to be mercurial, may develope themselves in those whose primary affection has been so slight as almost to escape observation, and has not called for any regular course of treatment, or the influence of a salivation.

John G., aged 32, a tall, sallow-complexioned man, first contracted venereal disease eleven years ago. He describes the attack as gonorrhœal, adding that it was followed by an abundant growth of warts. He was under treatment eleven weeks, during which time he took the usual mixture, containing copaiba and cubebs. Seven years ago, after connexion, there formed in the left groin a bubo, which suppurated, and was opened. He did not notice any excoriation or sore upon the penis. Twelve months ago the throat became sore; phagedenic ulceration, commencing at the back of the pharynx, crept along the soft palate, and destroyed the uvula and adjoining soft parts, leaving a considerable gap. The disease in the throat was arrested by the administration of the iodide of potassium, sarsaparilla, occasional doses of opium, and by the topical application of nitric acid, diluted with two-thirds its quantity of water. Nine months ago the testicles, which had upon several previous occasions swelled for a few days and then resumed their usual size without treatment, became permanently enlarged and hardened. He came to the hospital, July 10th, 1846, and was admitted under Mr. Lawrence.

Both testicles are hard, nodulated upon the surface, heavy, and swollen to three or four times the natural size. The scrotum is red and hot, and adherent on either side at one spot, equal in diameter to a sixpence, to the tunics of the two glands. The patient looks sallow and out of health.

To take three grains of the iodide of potassium out of docoction of sarsaparilla, three times a day. Broth diet; a pint of porter daily.

20th. Some ulceration recommenced in the throat. He complains of soreness in swallowing. To use alum gargle. Meat diet.

31st. The testicles remain unchanged in size and consistence; the adhesion of the scrotum is unaltered. To take two and a half grains of mercury and chalk three times a day.

August 10th.—The medicine has been for a short time omitted, in consequence of the patient suffering from a prevailing attack of diarrhœa.

August 13th.—He left the hospital. Both testicles are much softer and smaller, being but little beyond the natural size. The adherent parts of the scrotum are loose; the throat is completely healed, and he feels well and strong.

November 28th.—He suffers occasionally from nocturnal pains; there is enlargement and swelling of the left tibia. He attended at the out-patient room, where he took the usual medicines, and in the course of a week pronounced himself well.

December 4th.—He again presented himself at the hospital. There is a large phagedenic ulcer at the upper and back part of the pharynx, the lower edge appearing below the border of the cicatrised soft palate.

January 3rd.—He was re-admitted into the hospital with a large phagedenic ulcer of the throat, thickening of the tibia, and foul circular ulcer of the integuments of the leg.

To take iodide of potassium in sarsaparilla daily.

Broth diet; bread poultice to the leg; alum gargle.

Discharged January 23rd.—The ulcer of the throat is healed. The tibia is less painful. The ulcer of the leg is granulating healthily and cicatrising.

In succeeding reports, I shall proceed to describe the different forms of syphilis as now existing, and the treatment found most applicable to each. H. C.

PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

BELFAST GENERAL HOSPITAL.

By A. G. MALCOLM, M.D.

CEREBRAL SERIES.

CASES OF ACUTE CONGESTION.

No. 1. Ann D., aged 25; recovered.

Case.—Had brain fever a year and a half ago; since, subject to occasional dyspeptic attacks. On the evening of 27th December ult., remembers to have been taken suddenly ill; fell down, screaming, in a swoon; menses had suddenly ceased the day previously; felt a sensation of cerebral determination, with violent headache: was admitted on 28th, in a state of stupor and insensibility, and remained so till 29th, when consciousness seemed restored. Pulse, at this time, 108; tongue furred, and bowels confined; general pains. On following day some vertigo and confusion of head, and general soreness; otherwise quite better; well on fifth day.

Treatment.—Cc. nuchæ ad ℥xij; ves. nuchæ. Sinap. curis; cal. et jal. purgative, followed by a draught of ol. ric and turpentine.

The coincidence of the stoppage of the menses and the cerebral symptoms sufficiently indicated the proper course of treatment.

No. 2. Agnes C., aged 48; housekeeper; died.

Case.—Reported that she had been, but not lately, in the habit of drinking to excess. Admitted on 5th November, ult., in active delirium, with a pulse at 84; tongue furred, and face flushed. On the 6th the delirium was quiet, and the pupils dilated. On 9th, nearly quite sensible, but weaker. On 10th diarrhœa set in, (evacuations rice-like), pulse very feeble. On 13th, the face again flushed; pulse rising, 120, very feeble; respiration stertorous; pupils dilated; deglutition difficult. On 16th died.

Necropsy disclosed a considerable quantity of serous effusion in arachnoid; a white, gelatinous exudation beneath arachnoid; general cerebral congestion. The total amount of effusion was not less than half a pint.

Treatment.—Head shaved, and blister applied to nape, and cal. and croton purgative, at first. The symptoms of debility ensuing, a stimulant course was indicated, and ammonia, wine, and nourishment administered.

This case was of the passive form of cerebral congestion, ending in effusion. Though the history was imperfect, there was no reason for suspecting the case to be one of fever, as on the 14th day, the skin is reported cool, and the tongue clean; conditions not existent before crisis in any specific fever of a fortnight's duration. The marked debility evinced all through put any active treatment out of the question, which, indeed, could not seem to have been useful in this case, however pathologically indicated under a different constitution.

No. 3. Letitia R., aged 50; spinster; recovered.

Case.—Appeared of a delicate conformation; history unknown, save that, on a former occasion, had symptoms of delirium tremens. Admitted on 21st November, ult.; took ill suddenly on previous day with an attack of delirium, assuming the form of a violent terror, inspiring religious delusion. On admission, was so obstreperous and restless that she required to be placed under restraint; scalp hot

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and face flushed; next day became quieter, but refused all nourishment, and in the evening relapsed into former state of violent delirium, with fits of screaming; under the influence of treatment pursued became daily gradually better, and was discharged well in about ten days.

Treatment.—A croton pill and turpentine enema immediately; leeches to the temples; head shaved; mercurialization. The symptoms having subsided steadily, under the depressing treatment employed, pointed out the true nature of the case.

No. 4. Thomas B., aged 42, labourer, died,

Case.—Of apparently sound constitution and intemperate habits. After "a drinking bout," during which he had fallen and hurt his head, on 1st February, took ill with rigor, vomiting, thoracic pains, and slight cough, and general debility. The injury apparently caused no inconvenience until eight days after, when the part became painful, and erysipelas of head and face regularly set in, with delirium, for three nights previous to admission. On admission, the pulse was 108 and feeble, and the eyelids greatly swollen. On the following day the pulse became irregular and weaker, and deglutition much impaired; delirium quiet, chiefly evinced by incoherent answers; gradually stupor supervened, with general prostration and involuntary evacuations. He expired comatose after four days; erysipelatous appearance having much diminished during last three days.

Treatment.—An antimonial-saline mixture on admission; afterwards ammonia and quinine, blisters and mercurial dressing. This case was examined *post mortem*. There was very considerable vascularity, and slight excess (2 oz.,) of subarachnoid effusion.

There were none of the usual indications of nervous excitement in this case, which might be supposed probable from the general habits of the patient; and the necropsy distinctly showed that the metastasis, so common in erysipelas of the head had here supervened. The treatment was directed to support nervous power and derivate from the brain.

No. 5. Francis L., aged 47, pedlar, died.

Case.—A moderately stout and apparently healthy man. It is reported that he was ill two weeks. Illness commenced with usual symptoms of fever, yet without severely affecting the general system, as he was "up and down" for ten days, and then began to complain of weakness of limbs with numbness and loss of speech. Came down by train a distance of thirty miles on day of admission. He was very feeble, and pulse quick and weak; extremities cold, tongue whitish, some deafness. After rallying a little, the pulse was counted at 120; skin hot; speech more difficult; at times delirious, the delirium partly of an idiotic character and partly ordinary; respiration quick and laboured. He was evidently sinking; hiccup and rattling respiration soon supervened, and he died comatose on third day.

Treatment.—Head shaved; vesicatory to nape; ammonia and blue pill, and latterly stimulants. A necropsy disclosed marks of congestion and effusion into arachnoid and ventricle. From the symptoms on admission, the case simulated one of the forms of apoplexy or of red softening, while the history indicated a febrile attack. But not having been confined to bed during two weeks, and the state of the tongue, and absence of emaciation or general prostration, were antagonistic to the latter opinion, while the absence of convulsions throughout rendered the former at least doubtful.

The *post mortem* examination alone cleared up the diagnosis of the case, which presented no criteria for a decided course of treatment.

RECOGNITION OF THE LIVERPOOL COLLEGE OF CHEMISTRY BY THE APOTHECARIES' HALL OF LONDON.—We have great pleasure in inserting the following note from Dr. Semple to Dr. Muspratt:—"I am happy to inform you, that the Liverpool College of Chemistry is recognised as a school of practical chemistry, and you can enter pupils to the course as soon as you please. I entirely agree with you upon the necessity of a practical course of chemistry, as contra-distinguished from a mere course of lectures on that subject; and it has been precisely that conviction on my part which has led me to advocate most strenuously the necessity of students undergoing a course of manipulations in chemistry, performed by themselves, in addition to the usual lectures; and this regulation comes into operation this very month." The Apothecaries' Society have rescinded a bye-law of ten years' standing in favour of Professor Muspratt—a very high compliment.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	May 24.—	MEDICAL SOCIETY OF LONDON. *Subject*:—Dr. Webster, "On the Sanitary Condition of London during the last Six Months." Eight o'Clock.
		LINNEAN SOCIETY OF LONDON. *Anniversary*. One o'Clock.
Monday,	May 26.—	GEOGRAPHICAL SOCIETY. *Anniversary*. One o'Clock.
Tuesday,	May 27.—	ROYAL MEDICAL AND CHIRURGICAL SOCIETY. Half-past Eight o'Clock.
		ZOOLOGICAL SOCIETY. Nine o'Clock.
Wednesday,	May 28.—	GEOLOGICAL SOCIETY. *Subjects*:—1. W. H. Loftus, Esq., F.G.S., "On the Geological Structure of the Tagros Range of Western Persia." 2. J. W. Salter, Esq., F.G.S., "On the Remains of Fish in the Silurian Rocks of Great Britain." 3. H. E. Strickland, Esq., F.G.S., "On the Elevatory Forces that raised the Malvern Hills." Half-past Eight o'Clock.
		ROYAL BOTANIC SOCIETY. Quarter to Four o'Clock.
Friday,	May 30.—	ROYAL INSTITUTION. *Subject*: — Colonel Rawlinson, "A Few Words on Babylon and Nineveh." Nine o'Clock.
Saturday,	May 31.—	MEDICAL SOCIETY OF LONDON. Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, MAY 24.

UNIVERSITY OF LONDON.

HAVING on more than one occasion expressed in strong terms our disapprobation of the present mode of appointing the members of the Graduates' Committee of the University of London, it is with no little pleasure that we record the alteration that is to take place in the method that is henceforth to be adopted in electing that body.

The following is in substance the plan according to which the future Graduates' Committee is to be chosen. Our readers will perceive, that in all essential particulars it is identical with that of which we advised the adoption.

All the members of the Committee are to retire annually, but to be eligible for re-election. Three weeks before the Annual General Meeting, any four Graduates may transmit to the Secretary, in writing, the name of any Graduate whom they consider eligible for a seat on the Committee. Balloting papers are subsequently to be forwarded to all the Graduates with whose addresses the Secretary is acquainted, containing the names of the members of the old Committee willing to be re-elected, and of all the other Graduates duly nominated. The election is to take place by ballot at the Annual General Meeting.

The members of the Committee are entitled to the best thanks of the Graduates; for to their exertions are due the public conferring of degrees,—a ceremony really worthy of the University, as exhibited this year in the spacious Library of University College, with its magnificent ante-room, the Flaxman Gallery;—to their exertions were mainly due the modifications made in the supplementary Charter; and by their strenuous yet temperate efforts to obtain a more liberal Charter for the University, a foundation has been laid which must ultimately be crowned with success. At the present moment, not a shadow of a liberal spirit is to be found in the constitution of the London University. A Chancellor, Vice-Chancellor, and thirty-six Fellows form the Senate, in fact, constitute the University. All these functionaries enjoy their dignity by the dicta alone of Sir Whoever-may-be-Secretary-of-State-for-the-time-being, Whig or Tory as the case may be; the Graduates, as a body, having nothing

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to do with the University, but to pay money towards its support. Moreover, not a Graduate of the University is to be found among the Crown-named Fellows; not a Graduate among the Senate-named Examiners. Perhaps those ignorant of the affairs of the University may suppose, that these repudiated Graduates are youths unfitted by age and station to hold office in the University. *Is it so?*

One is a member of the Council of University College, and many are Fellows of the College of Physicians; Professors in the Colleges connected with the University, and Physicians to some of the most important London and provincial charities. Surely among these, men worthy of the Fellowship of their own *Alma* (?) *Mater* might have been found. Are we to understand, that the most ready mode of obtaining the Fellowship of the University of London is to graduate at Oxford or at Cambridge; that the Senate consider high honours in those Universities guarantee of a man's fitness for an Examinership in London, while they hold their own honours as valueless for the same purpose? We believe this, strange as it may at first sight appear, to be a great fact; and we believe it to be so, because the respect and sympathy of the Cambridge Chancellor and Fellows are not with their foster-child, but with their own *Alma Mater*.

There are now several hundred graduates, some of them men whose position and scientific acquirements entitle them to the highest consideration of their fellow-Graduates, if not to the notice of Crown-appointed Fellows of the University. The only reasonable ground for refusing to the Graduates a voice in the election of the Senate, or governing body of the University, is the fact, that the Government contribute yearly a sum of money to assist in defraying the expenses of the Institution. So the Government, perhaps wisely, say,—"So long as you come to us for cash, so long must we have a large share in the management of the University." But then, it seems to us that with its present Charter, there is no probability of the University ever supporting itself; while we are confident that, if more popularly constituted, it would very quickly pay its own expenses: and we shall take an early opportunity of pointing out how a considerable diminution in the expenses of the University might be effected.

THE CONVENTION OF POOR-LAW SURGEONS.

NOTWITHSTANDING the strenuous exertions of the Committee of Poor-law Surgeons, it appears by the last audit that the exchequer is insolvent, and the Society gasping in the last struggles of financial dissolution. This is a most inglorious termination of a promising career; and yet it is, from some cause, the common fate of all medico-political associations. Money, the blood of agitation, is drained off by ceaseless expenditure, while the supplies gradually become more and more scanty, until an irremediable exhaustion closes the scene. A few hearty earnest men, chivalrously enrolled as staff-officers, undertake all the toil, anxiety, and risk of the enterprise, and precipitate themselves into a struggle, with the good hope of a courageous and steady support; but they are disappointed;—the Profession, by repeated failure, become sceptical of success, hang back, criticise, shrug their shoulders, and, as a matter of course, marking the defeat, congratulate themselves upon their superior sagacity in declining to venture their subscriptions in aid of an undertaking so imprudent. We are not prepared to say that in many instances they are not perfectly right, for we should be sorry to reproach them for not having adopted the conceits of every ardent and idle brain that fancies it has discovered in its dark crypts the mysterious secret,—the "open sesame" of our political and social regeneration. A few years ago, societies sprang forth by dozens, at a single leap, like Minerva from the brain of Jove, fully equipped, and exuberant with energy and hope. These were dangerous days, when a simple man, listening to the seductions of the syren might have been inveigled into incalculable misadventures. The enthusiasm has now blown off, and medical reform, in the opinion of most men, has become a thing weary, stale, flat, and unprofitable.

The Convention of Poor-law Surgeons, however, deserved better treatment. If there ever was a Society that professed genuine practical objects, calculated to redress positive evils and generated by the necessities of the times, this was one. Its failure is no disproof of its aptitude to the crisis that gave it birth, or to the circumstances that have hitherto sustained its exertions. It proves rather the Profession's incredulity of schemes of improvement, and the wide mental prostration before admitted wrongs, which repeated discouragements have induced. This state of mind must not, however, continue. We might almost say it has been permitted long enough. There are many grave questions to settle, and these will be settled, the Profession concurring or not; and it will be too late, when the deed is done, to chafe under disappointment, and hurl menaces at the Colleges and the Government for which there would have been no cause if the Profession had done their duty.

The Poor-law Committee, though declining further efforts for the present, reserve themselves for future contingencies. This is a prudent determination, and shows a tenacity on the part of the staff, which may yet conduce to the benefit of their members. In general politics we strongly object to the maintenance of a staff after the members have withdrawn their support from the Society. The pretensions and representations of such a body are an imposture, as they affect a universality of support that no longer exists. Opinions in politics have no practical force unless they receive the assent of numbers; and this is often given in consideration of peculiar circumstances which seem to justify the course recommended. If the circumstances change, the opinions lose their value; and, although it is but right that the Societies which practically imbody such opinions should, when the members retire, incontinently disperse, yet officials rarely possess sufficient good sense and disinterestedness to throw off their dignity, and consent to be numbered once more in the "roll of common men."

Our objections in this respect do not, however, apply to the Poor-law Committee. They represent a limited section of the Profession, having positive and real interests to protect, and suffering under evils which demand remedies, concerning which it is not likely that there will be much difference of opinion for some time to come. If this Committee dissolve, the Union surgeons will be left defenceless to the tender mercies of Government Commissions, and the tyranny and avarice of Local Boards. The usurpations and insults of these bodies are now kept in check by the voice of public opinion speaking through this Committee; and, although these gentlemen have not yet been able to effect much positive good, they may congratulate themselves that they have erected a barrier against the current of injustice, which, in consequence of recent Parliamentary enactments, was setting in with a full flood against their brethren.

During the respite from exertion that they have proposed, it may become the staff to consider, whether and by what means it may be possible to acquire a more extended support from the Medical Officers of Unions than has hitherto been afforded. We are aware of the influence of personal

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fears, and the overwhelming pressure in particular cases of individual interests, in preventing that cordial union necessary to a speedy and satisfactory revision of the laws to which the Medical Officers are subject; but we are not without hope, that in the issue of Parliamentary tactics, some new incitement may be given to revive the energies of the staff, and awaken in the members a sense of the necessity of a frank and general co-operation.

NAVAL ASSISTANT SURGEONS.

Twelve months since we stated, that as regarded the Naval Medical Service, an opportunity presented itself to Sir Francis Baring of having his name handed down to posterity, side by side with that of the late Lord Melville.

We then suggested how easy of accomplishment, how just to a class of men indispensible to the service, and how honourable to his Presidency at the Admiralty, it would be for Sir Francis to crown the work of improvement so auspiciously begun by the illustrious man we have just mentioned, who was one of those statesmen spoken of by Macaulay, "that looked far behind them and far before them."

How far our hopes have been realised, and in what degree Sir Francis Baring is entitled to the gratitude and respect of the Medical Profession, of which the Naval Assistant Surgeons form by no means an inconsiderable or unimportant portion, may be gathered from a recent debate in the House of Commons.

Captain Boldero, whose exertions in behalf of a most meritorious class of our Profession will ever entitle him to the gratitude of every one of its members, whether military or civil, clearly showed that the order issued by the Admiralty, in consequence of the resolution of the House of the 8th of April last year, had not been attended to by commanding officers. In the Mediterranean fleet, which counted six ships of the line, and five war-steamers, with a complement of twenty-four Assistant-Surgeons, five only of those officers had received the boon which it was the object of the House to obtain for them, namely, cabin accommodation. Captain Boldero contended that, in order to render the Naval Service efficient, it was necessary, as far as possible, to secure the health of the men; and the only way to do this, was to induce the best men to enter the Naval Service. He, then, required an assurance from the First Lord that he would take measures to carry the resolution of the House into effect; leaving to himself (Captain Boldero) the power of introducing the subject to the notice of the House, and on a future occasion taking its sense thereon.

The reply of Sir Francis Baring was hardly what we should have expected. He doubted the correctness of the allegations of Captain Boldero; but said he should make inquiry in the proper quarter, and added, that no complaints of want of accommodation had reached the Admiralty from the Assistant-Surgeons.

Assuredly not, Sir Francis. Mr. Hume said, more than two years since, "when Admirals were snubbed, it was not likely that the complaints of inferior officers were likely to find much favour at head quarters." Instead of redress, the more probable result to the Assistant-Surgeon would be, as remarked by the honorable Member for Finsbury, a black mark to his name, and retardation or stoppage of promotion.

The manner in which the question was received by the House, and the cheers that followed the announcement of these honorable Members who declared their intention to reintroduce the subject in the event of the order not being carried out in its integrity, plainly showed that the general feeling was strongly in favour of the medical officers.

The Admiralty ought, by this time, to have seen how utterly vain it is to stem the torrent of re-action, which a long system of injustice has raised in favour of the Assistant-Surgeons. Never yet was there a cause in which the sympathies of the public, of the Profession, and of the Press seemed more united in one common bond.

The corporate bodies of the Medical Profession, indeed the whole Profession, and the general as well as the Professional Press, have already done much to rescue the junior medical officers of the Navy from degradation. And we feel assured we proclaim the unanimous voice of the Profession, and of the Press, when we say for ourselves, that, to complete the good work, we shall ever be found ready to do more.

DEFECTIVE STATE OF THE LAW OF LUNACY.

DECLARATION OF LORD ASHLEY.

The *Medical Times* may fairly lay claim to the merit of having initiated a movement, which is daily gaining ground, to obtain a thorough revision of the Laws of Lunacy. The subject is one of vast public importance; and we have reason to know, that our views have been received with general approbation. We did not, however, expect to find Lord Ashley among the number of our allies. He was, in a great measure, we believe, the author of the Act 8 and 9 Vict. cap. c., "for the Regulation of the Care and Treatment of Lunatics;" he is the Honorary Chairman of the Board of the Commissioners in Lunacy, in New-street, Spring-gardens; and what does His Lordship, who is the expositor of this law, attest in its behalf? In the House of Commons, on Wednesday evening last, (14th May,) Mr. Lacy moved for leave to bring in a Bill to provide for the visitation of religious houses in which nuns are confined, upon the principle of the visitation of the Commissioners in Lunacy and Justices of the Peace in public and private lunatic asylums. The Solicitor-General, in plain terms, stated, that the Bill for the Regulation of the Care and Treatment of Lunatics was got up in a hurry,—on the spur of the moment,—in consequence of the Report of the Committee to inquire into the state of Bethlem in 1815; and Lord Ashley openly and manfully avowed,—we quote His Lordship's own words,—that, "*If it* (the Religious Houses' Bill) *was framed on the principle of the Lunacy Act, he did not hesitate to say that nothing could be more defective. The inspection of private asylums was not only imperfect, but was performed most unwillingly.*" This declaration, made by Lord Ashley, of the defective state of the law he is called upon to administrate, will, we trust, have due weight with the Government; and it entitles us to feel sanguine, that we have not laboured in vain in calling for the revision of a law which trifles with the liberty of the subject, and provides no adequate guarantee for the protection and humane treatment of the insane.

KÖLLIKER'S LETTERS FROM ENGLAND.

[Continued from page 542.]

London, October 24th.

We returned from Scotland with as much speed as we had used in going there, thanks to the universal railway. However, we took Liverpool and a portion of Wales in our road, and saw the two celebrated bridges that cross the Menai-

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straits. Czermak, who visited London for the first time, was detained longer than myself, though I would willingly have kept him company had not my vacations been rapidly drawing to a close. Still I had nearly three weeks to spare, and these sufficed to renew old friendships, and to make myself acquainted with the most important occurrences of the last five years. My researches were this time chiefly directed to microscopic preparations, and especially to injections, of whose superiority I had long since heard, but without being able to obtain possession of any. One of my first walks took me to Quekett, Owen's assistant in the Hunterian Museum; a man who may be looked upon as the chief representative of technical microscopy in London. I found him as Hyrtl had described him to me, a very kind and single-minded person, who opened his collections for me with the greatest readiness, and imparted everything to me that he knew or had tested. The admiration I felt when I visited Harting's collection, was still more excited on examining Quekett's microscopic museum; it contains close upon 10,000 specimens, and while it does not yield to the Dutch collection in the excellence of the preparations, surpasses it by far in point of elegance. One might almost say, that even in this limited field, the national character finds expression. The German microscopist rarely possesses a collection, but makes a preparation, frequently with much labour, as it is required, and as often as he may want it; the Englishman and the Dutchman, on the other hand, are more wise, and collect; but even between them there is a distinction, for, whilst the latter considers it sufficient just to preserve what he has collected neatly and cleanly, the former directs his powers of invention to this point also, and tries to render everything as convenient and elegant as possible. A further distinction between the German and English microscopist consists in the different position occupied by histology in the two countries. With us this branch of physiology is almost exclusively cultivated by men of science, whereas the microscope has in England as it were been rendered popular, and is therefore forced to engage with surbordinate matters, in order to be adapted to the ordinary powers and desires of the multitude. It is a common thing in England to find the microscope on the table in the drawing-room of the naturalist, and to see the men engaged with it, whilst, perhaps close by, the piano is pouring forth melody, or an aria reaches the ear; nay, the eye of beauty often peeps into the glittering instrument, and admires the kaleidoscopic section of an echinus, of a delicate vegetal tissue, or a variegated injection. To return to Quekett: I can give you no better notion of the number of his preparations, which by the way all belong to the College of Surgeons, than by mentioning that the College is now publishing, at its own expense, a catalogue in three quartos with many plates. The first volume is completed, and is published under the title, "Descriptive and Illustrated Catalogue of the Histological Series contained in the Museum of the Royal College of Surgeons of England. Vol 1. London, 1850." It contains a description of 404 vegetal, and 762 animal tissues, with eighteen plates presenting above 400 drawings taken from nature by the aid of the camera lucida. I have seen many of the preparations, which are described with considerable minuteness; I may mention the following as having especially attracted my notice:— 1. Blood corpuscles of lepidosiren annectens of $\frac{1}{170}$ by $\frac{1}{315}$ of a line, exactly like those of siren. 2. Elastic fibres from the ligamentum nuchæ in a giraffe, of great breadth, and with regular transverse striæ, which appeared to me to be owing to small cavities in the interior of the fibres, and to resemble rows of orifices seen here and there in human elastic fibres. 3. Cartilaginous tissues of numerous animals, such as lepidosiren, siren, planirostra, ornithorhynchus, bradypus, casuarius, struthiocamelus, etc.; also cartilage taken from an enchondroma, and of a sepia, containing cells of an apparently radiated form, like the corpuscles of bone. 4. Very numerous sections of the solid tissues of polypi, mollusca, radiata, and crustacea, and among these especially those of the shells of bivalves and terebratulæ. The delineations are well done on the whole; but a greater distinctness might be desirable in some. A defect felt throughout is the frequent absence of an interpretation of the descriptions and delineations, and this more particularly in the interesting solid tissues of the invertebrata. If Quekett had had regard to embryonic development, he would, undoubtedly, have brought out brilliant results; but, under the present circumstances, he does not give us more than we are taught by Carpenter, whose extensive researches first drew the attention of naturalists to the remarkable formations that occur in this department. Still, Quekett deserves great praise for the extreme labour bestowed upon the book; and there is no doubt that the rich material it contains will prove of lasting value. It is to be observed, that the most interesting and most important portion of Quekett's collection has not yet been described and delineated; I allude especially to the bones, dental sections, and injections. The latter are particularly excellent, and in no way inferior to those of Hyrtl; they, in fact, surpass them in being preserved moist, and thus showing the parts as they appear in nature. In this point there is no difference between the Utrecht and English preparations; but the latter bear the palm in point of elegance. Every one of them is enclosed in a glass capsule; this is contrived by cementing a shallow segment of a thick, circular, or square glass tube to the object-bearer, and closing it by an operculum. The entire process is described in detail in Quekett's book on the microscope; it cannot, however, be easily imitated with us, as the excellent cement, called marine glue and gold size, used to fix the glass tubules and opercula, is not to be obtained in Germany. I have purchased some, with the necessary supply of glass, in London, and intend to try whether I have time and patience to tread in Quekett's footsteps. But I fear I shall not succeed in doing more than cutting the two pounds of thin glass that are now at my disposal with a fine diamond, and occasionally making a rare preparation which may not always be at hand; the more so, as I have spent a considerable sum in England for injected preparations. Microscopy is so much in vogue in London, that there are three or four dealers who are engaged in nothing else than getting up preparations. I found the best at Topping's and Hett's; the latter is said to receive his supplies from Rainey, and they certainly are the most beautiful of the kind that I have seen. It is a pity that they are so expensive, as I should otherwise have purchased hundreds; but when you have to pay one or two shillings for sections, and from half-a-crown to four shillings for injections, the exchequer of German physiological institutions cannot do much.

Quekett is not only actively engaged in the histological collection of the Hunterian Museum, but has also, for some years past, delivered a course of lectures on Microscopy, in which it appears that he chiefly exhibits his preparations, and briefly explains them to persons of mature years, medical men, and others who are interested in microscopical pursuits. The manner in which this is done is so practical, and at once so gratifying, that I cannot deny myself the pleasure of describing it to you, the more so as you preside over a physiological school. Picture to yourself a well-lit amphitheatre, in which there are about forty spectators on the first row of benches; opposite to them, behind a long table, upon which there are six microscopes, stands Quekett. As a subject is discussed, the illustrative specimen is placed under a microscope, and everything is so contrived that it can circulate safely among the forty without calling for the assistance of the lecturer or puzzling the spectators. To achieve this, a railway is put up between the table of the Professor and those of the students, on which the instruments, each of which stands upon a separate footboard, on castors, move along smoothly. Everything in the microscope is immoveably adjusted; first, the mirror which receives its light from a lamp that is attached to the footboard of the microscope; secondly, the object-bearer, which is secured by separate brass-plates; thirdly, the barrel of the microscope; and, lastly, the tray. This is not (as generally in English microscopes) moved by two screws with the fingers, but, according to an invention of Quekett's, by two small two-pronged metal forks, which permit of being separated. With these provisions to render the instrument perfectly immoveable in all its parts, the instrument itself being, of course, firmly secured, it makes the circuit, and arrives safe and without risk at the last man; all supervision is unnecessary. That nothing may be wanting, an assistant writes a passport for the preparation; a scale is attached to the microscope, with a moveable index, to show the power; and finally—all honour to the inventor—there is an index in the eye-piece to mark, for the less experienced, interesting points of the subject under examination, such as a fibril or corpuscle; in short, nothing is wanting or forgotten. The only possible objection that might be raised is, that all eyes do not see equally distinctly with the same focus; but that surely is not to be

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mentioned in comparison with the convenience of being able to show some twenty or thirty preparations to forty spectators in an hour. For my own part, I have often longed for such a microscope railway, when our zealous students besieged the microscope, and the object was constantly removed from the field of vision; but I fear that it is destined to remain a *pium desiderium*, and for the present there is every prospect of the German Professor continuing to eat his bread literally by the sweat of his brow.

There are numerous other collections in London besides that of Quekett, as, with very few exceptions, all who at all occupy themselves with the microscope get up their own preparations. The kidney preparations of Bowman, the injections of Rainey, Carpenter's collection of the solid parts of the invertebrata, and the sections of bones and teeth belonging to Tomes, deserve especial mention. I had seen Bowman's preparations on a former occasion, but I was much gratified to go over them again when I revisited my old friend. They are of exquisite beauty, as those who have seen Bowman's Dissertation on the Kidneys will readily admit. At a large scientific evening party at Bowman's, where not less than six microscopes were put in requisition, I had an opportunity of seeing a portion of the other preparations mentioned, besides many others whose owners I was induced to trace. I found that Carpenter, Professor of Physiology at the London Hospital, possessed several thousand sections of shells of mollusca, and of the solid parts of radiata, crustacea, and polypi, both of existing and of fossil animals, all very beautiful and instructive. The shells of Pinna were particularly interesting to me; they possess, in part, a structure resembling the enamel of teeth, but in colossal relations; I also admired those of terebratula, which contain separate channels for soft prolongations of the animals, and those of anomia, with a ramified system of tubes, whose function is unknown. I only went over a small portion of Rainey's injections; but I must state, that they are the most exquisite of the kind that I have met with. I may instance those of intestinal villi, the lungs, tactile eminences, fat-clusters of man and of various animals. I spent a considerable time with that engaging gentleman, Tomes, to enable me to study the most important specimens of his 4000 sections of the teeth and bones. Tomes is surgeon-dentist to the Middlesex Hospital; he possesses a thorough knowledge of his Profession, and has been long engaged in investigations into the structure of teeth and bones. The results he has arrived at are deposited in part in his work on the "Anatomy, Physiology, and Pathology of the Teeth," partly in the "Cyclopædia of Anatomy." He has lately presented two memoirs to the Royal Society, on the Structure of the teeth of Rodentia and Marsupialia, which are each of them based upon the examination of many species, and exhibit many interesting relations, of which I was able to convince myself by his preparations. The prolongations of the dental canaliculi into the enamel found in marsupial animals, seems to me of peculiar importance. Tomes concludes, from this circumstance, that dentine and enamel is not to be considered so widely different as has been done hitherto. I am unable to determine whether this view is correct. The sections of the teeth of rodentia are also very beautiful; in them the animal fibres form lamellæ, and they observe a different direction in the different lamellæ, so that many sections present an elegant crossing: in mice they are also elegantly dentated, comparable, for instance, to the lens-fibres of fishes. Tomes intends gradually to describe the teeth of all genera of animals. everybody who has seen the rich treasures of his collection will wish him joy of his undertaking. I cannot quit the microscopists of London without a mention of those who, though not possessing large collections, are numbered among the chiefs of science. I should be inclined to place Bowman and Sharpey at the head of English microscopists; though it is much to be regretted that both have of late contributed less actively to the promotion of science than formerly. Sharpey is a man of profound research and very extensive reading; he is particularly well acquainted with German literature, and experimentalises much, but still he writes little. Of late he has published nothing beyond the histological portion of the third volume of Quain's "Anatomy." Bowman, I almost regret to say, is gradually acquiring a practice, and is thus prevented cultivating the field of minute anatomy for which he was so peculiarly adapted. I may mention, that one post which he occupies is a Professorship at King's College. The long intervals at which the work on Microscopic Anatomy which he edits in conjunction with Todd, appears, is one proof of his numerous professional engagements. It is even a matter of doubt whether the fourth section, which we have been expecting since 1847, will ever appear, although about ten sheets, as I have myself seen, are already completed. Bowman, who has made ophthalmic surgery his *spécialité*, has of late been engaged in the anatomy of the eye. A re-publication of some articles which had previously appeared in the journals, under the title "Lectures on the parts concerned in the Operations on the Eye, London, 1849," contains, in an elegant form, his more recent experience. The work contains, in addition to pathologico-anatomical and practical remarks, a complete minute anatomy of the eye; the retina and the corpus-vitreum are treated with peculiar care. I gather from this treatise that I erred when I stated in my microscopic anatomy that Hassall discovered the processes of the nerve-cells of the retina; it should have been Bowman. As early as 1847, Bowman described the asteroid nerve-cells of the retina accurately in his lectures delivered at the Ophthalmic Hospital, (communicated in the *London Medical Gazette*, 1847,) and in his recent work, which is contemporaneous with Hassall's first communication on this subject, (in the last Number of his "Microscopic Anatomy," 1849,) he confirms his former data. Bowman discovered these cells in the human being and the horse, though with some difficulty; he found them most beautiful in the tortoise; the descriptions and drawings, which he communicated to me, prove that here the processes are very numerous, long, and extensively ramified, something like the cells of the substantia ferruginea of the medulla oblongata. Bowman is also inclined to assume a connexion, which in fact easily suggests itself, between the fibrils of the retina and these processes; but with an absence of all direct observation, he does not express as much, nor does he even utter a conjecture as to the function of the cells. He is undoubtedly correct in pursuing this course, for though analogy leads us to infer the great importance of this grey matter of the retina, every hypothesis is premature so long as the relation existing between the cells and the nerve-tubes of the retina is not determined. Future inquirers will, in the first place, have to ascertain whether these cells do not send out fibrils to connect the two retinæ, similar to the anterior arcuate fibres of the chiasma; they will have to determine whether the fibrils of the optic nerve terminate in these cells, and whether new nerve-fibres commence in them, or whether the cells do not send nerves exclusively to the retina. These questions are of extreme importance in reference to physiology, and Bowman, who has done so much in this field, would undoubtedly succeed in answering them, had he more leisure.

Todd, the well-known editor of the *Cyclopædia of Anatomy*, is even more removed from theoretic studies than Bowman; still he deserves great credit for the zeal with which, in spite of his extensive practice, he, in conjunction with Bowman, fills the Professorship of Physiology and Minute Anatomy at King's College, and for the active interest he takes in the progress of science. It cannot be denied that there is much to be said in favour of the English custom of filling theoretical chairs with men in actual practice; for, though the Professor may not in this case essentially promote the branch of science which nominally belongs to him, still he will be enabled to harmonise it more with the entire range of medicine, and the extent and unity of his knowledge will be a substitute for what he thus loses in originality. Whilst Todd devotes his leisure to physiological studies, Paget, Simon, and Wharton Jones have devoted themselves to the field of pathological anatomy, which bears a closer relation to practical medicine. Simon, who is extensively known by his excellent treatise on the thymus gland, has lately published lectures on general pathology, in which, with the practical tact so peculiar to the English, he exhibits whatever in this difficult subject rests upon fact; his language is attractive, and his method clear and concise. Wharton Jones has of late studied inflammation experimentally in the frog; his treatise on this subject, which may be considered as an extension of his researches on the blood corpuscle, has carried off the Astley Cooper prize, and has just appeared in the Guy's Hospital Reports. (Vol. VII. p. 1, 1850.) It contains valuable data, deserving of every consideration, and some important physiological statements, *e.g.*, that the capillaries are not contractile, that the contractility of the arteries is not destroyed by division of the accompanying nerves, or of the large nerve trunks; the

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treatise is remarkable for its objective character, though we may not approve of the direct application of Wharton Jones's observations in the frog to man; it is, therefore, very apropos, that Paget has at the same time investigated the changes produced by inflammation in the wings of a bat; he arrives at facts which in many respects differ from the results attained by Jones; they are given in his lectures on inflammation. (*London Med. Gazette*, 1850.) Paget, who is Professor to the large Medical School of Bartholomew's Hospital, is one of the most talented English pathological anatomists; he has selected the pathological relations of the tissues for his special study, and with extensive acquirements, including a thorough knowledge of German literature, and a mine of material, he occupies the most favourable position for breaking the way in England for minute pathological anatomy, as it first arose in Germany. Paget's productions, especially the lectures "On Nutrition, Regeneration, and the Healing Process," and "On Inflammation," delivered in the College of Surgeons, prove that he is thoroughly adapted to his task; it is only to be hoped that he may continue to possess sufficient leisure for independent research in this field.

You will probably wonder that I have not as yet said anything about zoology or comparative anatomy, to which you have particularly devoted yourself. The cause is simply this, that I had not time enough to examine everything in London. As a matter of course, I repeatedly visited the Hunterian Museum, which is probably the richest in the world in moist preparations in comparative anatomy. I renewed an acquaintance with its celebrated superintendent, Owen; but I was unable to go carefully through his preparations, which number about 23,000. Owen had the goodness to show me their new acquisitions, among which there are numerous fossils, as the cranium of a dinornis, many new bones of this giant bird, and of the related palapteryx, bones of the megatherium, etc., but there are also a large number of new preparations. Among the latter, I particularly remarked the viscera of the rhinoceros; fine preparations, illustrative of the embryology of the edentata and marsupials; also all the proofs of Owen's investigations on the eustachian tube of crocodiles, on the apteryx, the skeleton of vertebrata,—all excellent specimens, deserving a more careful study. Owen is always equally active, and employs his distinguished position, and the large means at his disposal, in a manner so serviceable to science, that even envy is silenced, and one is obliged to confess that the situation has been filled by a man worthy of it. I was only surprised at one thing—which does not, however, affect Owen, but the College of Surgeons—viz., that the College does so little for the diffusion of anatomical knowledge. Such an institution ought necessarily to be a large school; it ought not merely to possess an excellent collection and a distinguished curator, but should constantly be the nucleus for a number of young men devoted to science, and assist and promote their studies. A modest German University certainly does more, and educates the students better for the purposes of independent action, than this wealthy institution, in which, annually, three excellent courses of lectures are delivered; but, as far as I know, not one young man is practically introduced to the sciences of anatomy and microscopy.

Besides the College of Surgeons, I visited the British Museum, the Zoological Gardens in the Regent's-park, and the Museum of Economical Geology, in Jermyn-street. In the Zoological Gardens, I had the inestimable advantage of being conducted by Owen, who is acquainted not only with the structure, but also with the habits of the animals; a single visit in his company was more instructive than all my previous visits together. You will pardon my not giving a detailed account of the wealth of these gardens; but I must mention that I paid a visit to the hippopotamus, and have seen this animal which causes universal astonishment, and has not been exhibited in Europe since the time of the Romans. It really is an interesting creature; to form a proper opinion of it, it must necessarily be seen in the water. Out of the water it is clumsy and helpless; in its element it is lively and active, and sometimes is seen swimming along merrily at the surface, sometimes walking about freely at the bottom. It is difficult to understand how the monstrous animal is able to maintain itself for so long a period (from five to eight minutes) without any fatigue at the bottom. Its external configuration indicates its amphibious nature. Independently of the eyes and nose (especially the former) being placed very high, as in batrachians and crocodiles, and being capable of a considerable elongation, they may, like the ears, be protected by special apparatus during immersion. The eyes are provided with a large and very moveable membrana nictitans; each nostril is guarded by two valves, which the animal can close voluntarily; and a cushion (tragus?) lies at the external meatus auditorius, which serves a similar purpose. I was almost as much interested by the attendant of the animal as by the hippopotamus itself; he is a Shegya Arab, of that singular race which, though of black complexion, presents the peculiarities of the Caucasian race. It is a case which proves that the colour of the skin is of little value in classifying the human race.

The zoological collection in the British Museum is recruited mainly from the Regent's-park. It is one of the richest in the world. I am not sufficiently versed in zoology to give an accurate description of it; I will, therefore, merely state that I found the petrefacts the most attractive, the more so as the learned Waterhouse was my Cicerone. The mastodon skeleton, the megatherium, which has been restored and cast in plaster of Paris from the detached bones existing in the Museum and the College of Surgeons, the numerous ichthyosauri and plesiosauri, the sivatherium, the numerous crania of elephants and mastodons, the fossil cephalopoda, such as the belemnites, with impressions of the soft parts, and many other subjects, possess such extensive signification, that even the anatomist feels quite at home among them. I only regretted that we Germans so rarely have an opportunity of digesting and converting into a more staple value the impressions and gratifications we receive from the large museums of other countries. A good deal is done among us to promote the knowledge of antediluvian animals; but we are either without the means, or our collections are scattered or not sufficiently accessible. This is very different in England, where with a proper freedom in using the preparations, there is the necessary concentration and vigorous assistance afforded by the higher powers. Thus, for some years past, a geological investigation of the whole of Great Britain has been set on foot by and at the cost of, the Government; the object is, to obtain accurate maps and a collection of everything relating to the subject.

This undertaking, which is superintended by De la Bêche, is in connexion with the new Museum of Economical Geology, which already possesses very beautiful collections of minerals and petrefacts, and promises to become unique. I here found an old and true friend, E. Forbes, busily engaged in the publication of the hoarded treasures; this is also done at the expense of the Government. In the memoirs of the geological survey of the United Kingdom, three numbers by Forbes have appeared in 1849 and 1850; they contain a portion of the echinidæ, asteridæ, and trilobites of England, with accurate descriptions and very beautiful delineations, especially of the new genera and species, which, in part, are very interesting. Forbes has, both by his former and his recent works, proved himself to be one of the most active and well-informed students of the invertebrata in England, and the museum in Jermyn-street will no doubt derive the greatest benefit from the acquisition of such a man. Are you acquainted with his "Monography of the British Naked-eyed Medusæ," in the Tracts of the Ray Society for the year 1848? It is a splendid work, containing descriptions and drawings of not less than forty-three naked-eyed medusæ of the English coast, thirty-four of which are new varieties and genera. Forbes has collected the materials for this work during his numerous voyages round the British coast. It is surprising that he should have succeeded in comprehending these delicate and often minute animals so thoroughly, and even, in many instances, in ascertaining their structure and habits. His most valuable discovery in reference to the latter is, undoubtedly, the confirmation of the observation made by Sars, that cytæis octopunctata and thaumantias multicirrata is multiplied by buds. Forbes observed, firstly, as Sars did, that in thaumantias lucida gemmation took place from the ovaria, in cytæis octopunctata symmetrically from the pedunculated stomach; secondly, he observered numerous irregularly placed buds on the peduncle of sarsia gemmifera (Forbes); and at the base of the marginal tentacula of sarsia prolifera (Forbes); in these cases as in those of Sars, the budding animals exactly resembled the progenitrix. It deserves to be mentioned, that Forbes proves, by a distinct experiment, that not the entire disc of the medusa is contractile. On removing with a scalpel the

so-called muscular ligaments on one side of the inferior surface of the disc in a large rhizostoma, the animal became hemiplegic. It is evident that distinct contractile elements exist at this place; it is a second question, whether they are real muscular fibres. When I was in Italy, I found two kinds of fibres in several medusæ, especially in Pelagia: the one were very fine fibrils, similar to those of cellular tissue, aggregated in larger or smaller bundles, crossing one another in various directions; the others were homogeneous, or slightly granular, but not transversely striated broader fibres, measuring 0·001 lines; they lay parallel to one another, and might be considered as contractile elements. Their development would demonstrate to what tissues of the higher animals they are analogous; for the present, I am inclined to class them genetically with the transversely striated fasciculi, as they appear to possess the character of cell-rows that have been fused together. Most recently, Agassiz ("On the Naked-eyed Medusæ of the Shores of Massachusetts," p. 239) has described muscular fibre cells in Sarsia, like those in the non-striated muscles of vertebrate animals, of which I have as yet seen no trace in invertebrata.

Before concluding my letter, I have to mention, that I made a short excursion from London to Oxford with Czermak. I saw Dr. Acland, the zealous curator of the small lately founded Anatomical Collection; and Dr. Strickland, who, in conjunction with Dr. Melville, has written the beautiful monograph on the Dodo, which you are probably acquainted with. I found little else that directly interested the medical man. In company with an old acquaintance, Dr. V. Carus, who has been working with Dr. Acland for the last twelve months, I examined the head of the Dodo in the Ashmolean Museum, one half of which is disarticulated; and the cranium of the Ziphius Sowerbiensis, in Acland's Collection,—a unique piece. I gave myself up, for a short time, to the various impressions which this most singular of all university-towns makes upon the visiter, and, rejoicing not to be forced to spend my life there, I returned to the more noisy, but vastly more interesting Metropolis, though only to feel the regret at being unable to enjoy it longer. I had the same fate in London as befel me more or less throughout my peregrinations; when I began to be tolerably acquainted with the institutions and the inhabitants, stern necessity stepped in and drove me on. I must hope that you will permit me to plead this as an apology for my brief sketch,—take it as it is given, as a few modest jottings of what particularly interested me, or accidentally came to my knowledge.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

CAUSES OF STERILITY—OBLITERATION OF THE SPERMATIC DUCTS.

M. Gossilin, principal demonstrator at the Faculty of Medicine, has directed attention to certain lesions which interrupt the passage of the semen, and thus become a cause of sterility. In some cases, either one or both of the vasa deferentia are obliterated at a certain distance from the termination of the epididymis. The testicle, in cases of this kind, preserves its natural volume, and the vesiculæ seminales remain unchanged in appearance, although the semen no longer reaches them. In other cases the vasa deferentia are affected. The whole of these ducts are obliterated, and the passage of the semen consequently interrupted in the most complete manner.—*Biological Society.*

THE CURARE POISON.

The savage inhabitants of the forests bordering on the Orenoko, Black River, and Amazon, have been long acquainted with a most deadly poison, which, like some other substances of the kind, enjoys the singular property of causing instant death when introduced into the blood, though it is totally inert when introduced into the stomach. A quantity of the poison having been forwarded to France, MM. Bernard and Pelouze performed numerous experiments with it, the results of which they communicated at the last meeting of the Institute.

The poison itself appears to be a watery extract from a plant belonging to the family of the strychniæ. When a very weak solution of this extract was injected into the jugular veins of dogs, rabbits, &c., it killed the animals instantaneously, without a single cry or convulsive movement. The action is even more rapid than that of prussic acid. When a small portion of the extract is placed beneath the skin in contact with the vessels, the toxic properties exercise their influence, but in a different manner. The animal at first shows no sign of suffering. A bird, for example, will continue to fly about as usual, and then suddenly fall dead, as if struck by lightning.

On examining the bodies of animals destroyed by this poison, MM. Bernard and Pelouze found that the nervous energy was invariably annihilated. When animals are killed suddenly, the nerves continue to preserve a certain degree of irritability for some time; but after poisoning with the "curare," they are perfectly inert and incapable of feeling the most powerful stimuli.

The fact of the poison remaining in the stomach, without producing any toxic effect, depends on the circumstance, that the gastro-intestinal mucous membrane absolutely refuses to absorb the slightest particle of it. The poison is dissolved by the gastric juice, but not digested or altered by it. This was clearly shown by injecting some of the fluid taken from a dog's stomach into the veins of another dog, when instant death ensued.

The curare, in its mode of action, and the effects produced by it, seems to bear a strong analogy to the poison secreted by the viper.—*Bulletin de l'Institut.*

PREPARATION OF ATROPINE BY MEANS OF CHLOROFORM.

The following method of employing chloroform for the purpose of separating organic alkalies, has been proposed by M. Rabourdin, of Orleans.

The expressed juice of the fresh belladonna is heated until the albumen coagulates, and then filtered. To the cold, clear fluid are added 4 scruples of caustic potass and 30 scruples of chloroform per pint; the whole is then agitated for a minute and allowed to depose. In half an hour the chloroform deposes, charged with atropine, under the appearance of a greenish oil. The supernatant fluid is now decanted and replaced by some water; the latter is also decanted, and the operation repeated until the water comes off limpid. The solution of atropine in chloroform is now distilled in a sand-bath, until all the chloroform has passed off, and the residue is dissolved in a weak solution of sulphuric acid, which takes up the atropine. To obtain the latter in a perfectly pure state, we add carbonate of potass in excess, collect the residue, dissolve it in alcohol, and evaporate the latter.—*Bulletin de l'Institut.*

TREATMENT OF SCROFULA.

Many years ago Dr. Negrier directed attention to the treatment of scrofula by various preparations from the leaves, &c., of the walnut tree. This mode of treatment has been adopted with much success in France, and in a late number of the *Archives de Médicine*, Dr. Negrier has collected together a variety of information on this subject, derived from the experience of German physicians. The most remarkable experiments were those performed at the Children's Hospital at Bonn, by Professor Nasse. 117 children affected with scrofula were submitted to the treatment; of these, 67 laboured under acute, and 50 under chronic scrofula. 40 patients were completely cured; 62 very considerably improved in every respect. It is worthy of notice, that nearly all the children cured by M. Nasse had been previously treated with cod-liver oil, without success. On the other hand, 15 patients, on whom the preparations of walnut leaves had produced no effect, were submitted to a course of cod-liver oil; only two received any benefit.

The above particulars are only calculated to afford a general and imperfect idea of the value of nut-leaves as an anti-scrofulous remedy; and it is much to be regretted that the authors who have written on this subject have not endeavoured to ascertain its *modus operandi*, or the particular cases to which it is chiefly applicable.

As far as we know at present, the remedy seems to act as a general tonic, exciting the appetite, and improving digestion.—*Archives de Médicine.*

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NEW UTERINE PLUG.

Every accoucheur must have experienced the difficulty of applying a plug to the os uteri in cases of hæmorrhage with a sufficient degree of accuracy to insure success. Pledgets of lint, or a silk handkerchief supported by the T bandage, are generally resorted to; but experience has not spoken very decidedly in their favour. Some time since, M. Garirl proposed a new species of plug, composed of vulcanised india-rubber. Nothing can be more simple than this instrument. It is a small thin bag of India-rubber, furnished with a long neck. When inflated strongly, every point of the circumference becomes applied to the walls of the vagina, os uteri, &c., and, by tying a string round the lower part of the neck, the air is retained in the bag, which thus becomes an excellent plug. M. Diday relates a case in the *Lyons Medical Gazette* where this method was employed with the best effect. The patient had laboured for some days under uterine hæmorrhage, which resisted every remedy applied, and compromised life. On employing the India-rubber plug, the bleeding was instantly stopped. The plug was kept *in situ* for sixty-four hours, and then withdrawn. The hæmorrhage did not recur.—*Gazette Médicale de Lyons.*

EXTIRPATION OF NEUROMA WITHOUT INJURY OF THE NERVE.

Formerly it was the habit to extirpate neuromatous tumours in totality, removing with them the portion of the nervous chord engaged in the tumour. The division of the nerve, when a large one, necessarily occasioned many inconveniences, as paralysis, contracture, &c. Subsequently, however, it was ascertained that the tumour involves the cellular tissue only, which envelops the nervous filaments, leaving the latter intact. Hence the evident indication, that we ought, if possible, to dissect out tumours of this kind, and leave the nervous chord intact, or at least undivided. M. Bonnet, of Lyons, has performed an operation which shows the possibility of fulfilling the indication now laid down in cases where, some time ago, complete extirpation would have been resorted to.

A patient, aged 56 years, was affected with a tumour in the ham, arising from injury. The tumour had continued to grow slowly for nine years before it gave rise to any inconvenience. Some lancinating pains were then experienced, and the pains gradually augmented during two years, until they became insupportable. On examination, M. Bonnet found a tumour, about the size of a hen's egg, in the ham. Although the tumour presented pulsations isochronous with those of the heart, yet the pulsation ceased on pushing the tumour out of the traject of the popliteal artery. It was, therefore, probable, that the tumour was merely neuroma of the popliteal nerve. Having first employed ether, M. Bonnet cut down on the tumour, and found that it was traversed nearly in the centre by the internal popliteal nerve. The tumour was now carefully divided, until at length the nerve appeared in sight. It was intact, and was separated without much difficulty from the tumour, which latter was enucleated from its sac and turned out. All pain, cramp, &c., now disappeared, and after the healing of the wound the patient was discharged perfectly cured.—*Ibid.*

NEW SUTURE FOR THE INTESTINES.

M. Buisson, Professor at the Faculty of Montpellier, has proposed a new mode of employing the suture in cases of intestinal wounds. It is effected through means of transverse pins and ligatures. Let us suppose, in the first instance, that the wound of the intestine is longitudinal; a number of small pins are introduced along the border of the wound, at about two millimetres from the edge, and parallel to it. The pins are made to traverse the lips of the wound, from the serous to the mucous surface, and *vice versa*. To each pin is attached a bit of thread and a ligature; and before tying the latter, the edges of the wound are turned inwards, so that the serous surfaces shall be placed in contact with each other. The ligatures are now tightened on the pins, the two surfaces brought well together, and the intestine returned. The pieces of thread attached to the heads of the pins are now brought out at the upper angle of the abdominal wound, while one end of the ligatures (the other end having been cut off) is brought out at the lower angle. About the third or fourth day, when adhesion may be supposed to have taken place, the pins are withdrawn by means of the threads. The ligatures are now free, and can be withdrawn by means of the ends which project from the inferior angle of the abdominal wound. In cases of transverse wound of the intestine, a slight modification becomes necessary. The pins must be bent, on account of the curve of the intestine, and two pins may be applied at each end of the wound, with the concavities of the curve turned towards each other.

This suture, which the author denominates the *implanted*, has been tried with perfect success on animals; M. Buisson believes that it is equally applicable to the human subject.—*Bul. de l'Acad.*

FOREIGN CORRESPONDENCE.

FRANCE.

CONCOURS—ELECTION OF M. NELATON.

M. Nelaton, one of the surgeons to St. Louis, was elected Professor of Surgery to the Faculty of Medicine on Wednesday last, and thus occupies the chair once filled with so much *éclât* by the illustrious Margolin. The election, it must be confessed, has occasioned universal surprise, for public opinion had selected another and more deserving candidate. The final decision was not arrived at without considerable hesitation,—one might almost say, without compromise of principle. It required no less than four different ballotings to arrive at a result. On the two first, the votes were thus distributed:—

For M. Michon, four votes, viz., Bouillaud, Larrey, and Herves de Chegoin.

For M. Buisson, three, viz., Velpeau, Begin, and Reveillé-Parise.

For M. Nelaton, three, viz., Rostan, Denonvilliers, and Langier.

For M. Robert, two, viz, Malgaigne and Gimelle. (a)

On the third ballotting, M. Robert's two voters went over to M. Nelaton; and, on the final *scrutin* between MM. Nelaton and Michon, the former was elected by a majority of seven to five votes.

The election, as I have said, has produced no small degree of surprise and regret, for the superiority of M. Buisson over all the other candidates was incontestible,—and it is seldom that the result of a Concours disappoints the judgment of the public. But, in the present case, it could hardly have been otherwise. M. Buisson was a stranger to the school of Paris; that is to say, pupil, representative, and professor of a rival institution, and his election would have been a virtual acknowledgment of the decadence of Parisian surgery. The schools of Paris and Montpellier have ever been opposed to each other, both in doctrine and educational practices, and *amour propre*,—a sentiment which influences even the most eminent men,—has, in the present instance, given rise to an act of manifest injustice. This opinion is entertained by the vast majority of those who assisted at the Concours, though many allege, in justification, that the judges could not have acted otherwise.

M. Nelaton, the new Professor, is a young man of very considerable promise, and, although the Faculty may not have obtained the services of the best candidate, it will, at all events, be certain of possessing one fully competent to fulfil his duties. This is the main argument in favour of election by Concours. You are always sure of securing a man perfectly able to fill his office, though he may not be the *most* able,—a result which our British system often fails to produce.

DR. MARSHALL HALL

presented last week to the Institut a memoir containing some of his views on the functions of the spinal and ganglionic nervous systems. Dr. Hall, it would appear, has been recently performing a series of experiments, with the object of determining how far the manifestations of the cerebral, spinal, and ganglionic nervous masses can be isolated from one another. It is impossible to isolate the functions of the cerebral system. On the other hand, nothing is more easy than isolation of the other two. To isolate the spinal system, you have merely to remove the brain and viscera of a frog or young cat. The respiratory movements continue; deglutition remains; the limbs are moved when irritated.

On isolating the ganglionic system, the circulation and peristaltic motion of the intestines continue, but all voluntary peristaltic motion ceases. Hence Dr. Hall concludes, that the spinal marrow

(a) The number of judges in a Concours is fifteen; but these have been compelled to retire from ill health, viz., MM. Roux, Cloquet, and Gerdy.

is the essential centre, not only of ordinary sympathetic movements, but of peristaltic sympathetic motions likewise.

MATICO.

The new astringent substance, matico, introduced by Dr. Jeffries, of Liverpool, has been recently employed in a great variety of cases by Dr. Cazentre, of Bourdeaux. M. Cazentre regards this substance as the best astringent which we possess in cases of capillary hæmorrhage. It is particularly indicated for epistaxis and metrorrhagia.

KOUSSO.—COD-LIVER OIL.—IODINE.

The recent importation of kousso into England appear to have a beneficial effect on our speculators here, who have reduced the price of the drug by one half. It is still very extensively employed, notwithstanding its high price, and continues to sustain its reputation undiminished. Cod-liver oil, I regret to say, is not only excessively dear here, but of detestable quality. Any London house which would establish a depôt in Paris, would confer on us a great benefit, and for itself secure handsome profit. Rancid oil fetches five or six shillings a pint, and at that price it is impossible to bring it into general use. M. Queenville, the celebrated pharmaceutical chemist, is making strenuous efforts to substitute his amygdalaceous solution of iodine for the "genuine pure," but medical men cannot be induced to abandon one of our most efficacious remedies for a compound the therapeutic effects of which are not yet established.

HOMŒOPATHIC DRUGGISTS.

And, talking of therapeutics, allow me to notice a strange quandary into which our friends the homœopaths have been driven by the law. The point is knotty.

The English journals some time ago made us acquainted with a fact, curious, but one which we might have readily anticipated. It is this: That certain homœopathic druggists, to save the trouble and expense of preparing dilutions to a decillionth degree, vend to their customers pure water. Without going into abstruse calculations for the purpose of showing what quantity of water would be required to dilute a drop of laudanum decillionately, or what length of time would be consumed in the operation, I might content myself with the simple remark, that the water, being just as effective as the pharmaceutical symbol, no great damage arises from substituting one article for the other. On this side of the Channel, however, things are not treated so cavalierly, although the tribunals have decided that wine is not "falsified" from being mixed with water. The legislature has recently passed a very severe law for the repression of all frauds affecting alimentary substances; medicines and pharmaceutical preparations are included. Any deviation in quantity or quality from the prescribed standard is punished by fine and imprisonment. This, you can easily conceive, has excited no small emotion amongst the "infinitesimals," who would be sadly puzzled if summoned to prove that their dilutions contain the exact quantity prescribed. That, in the eye of the new law, they commit fraud daily, and are subject to divers penalties, there can be no doubt; and if the "inspector" were to insist on verification of their bottles, a *procès verbal* would be the inevitable consequence, followed by seizure of the contents. Perhaps, however, the English maxim, "*de minimis non curat lex*," may prevail here, and save their bacon.

M. Merat, author of the well-known treatise on materia medica, died here recently. He has left his books and many valuable papers to the Academy of Medicine.

Another medical man, who made an enormous fortune in Mexico, has also bequeathed a considerable sum to the Institut, for the foundation of prizes.

The summer session commenced on the 1st of May, with little or no change since last year. M. Bernard lectures at the College of France, as substitute for M. Majendie, who has, apparently, retired from public life. M. Roger, who supplies the place of another professor, is to give a complete course on diseases of children; which, strange to say, has never yet been made the subject of any public course of lectures here, although the *Enfans Trouvés* and the *Enfans Jdeux* are the finest establishments of the kind in Europe.

GENERAL CORRESPONDENCE.

CONTEMPORARY CRITICISM.

"Suum cuique tribuito."

[To the Editor of the Medical Times.]

SIR,—The practice, I believe, is peculiar to the healing art, that the memoirs of its living members are recorded, and illustrated with lithographed likenesses, in the medical periodicals of the day. The clergy, of all classes, have long been proverbially prone to transmit their portraits to posterity before they have become themselves heirs of immortality; but as to writing and reading their own lives, they have consistently adhered to the text, "that they may rest from their labours," in the hope that "their works do follow them." There is no valid objection, that the faithful and pleasing pictures of eminent men, either in science or literature, should not be engraved to the fullest extent and taste of their admirers. All such productions promote the progress of art, and their diffusion tends to stimulate latent talent, and to conjure up and preserve the best feelings of our nature. But it is a different thing altogether to write the history of a man's life, and of his professional transactions, before the grave has closed upon him. Such a measure is calculated to pander too much to vanity, and the less estimable sentiments of humanity. Knowledge never seeks to puff itself up, and true merit repudiates every attempt to blazon its own doings. One advantage, however, accompanies autobiographical productions; viz., that all errors and mistakes committed therein are more easily rectified when they appear, than if claims to inventions, and pretensions to discoveries had been advanced at more distant periods of time. I have been led to make these observations by a perusal of the Biographical Sketch of Professor Syme, which appeared in a London weekly periodical of the 1st of February, 1851; and by an editorial notice of the subject to which my attention was drawn, contained in the last April Number of the *Edinburgh Journal of Medical Science*. In the sketch referred to, it is stated, respecting excision of the maxillary bones, that "Mr. Syme was the first surgeon in Great Britain who excised the superior maxillary bone; and the case in which he did so is the earliest on the records of surgery, 1829." And the same claim is made in the *Edinburgh Journal*, p. 377, in which an extract is given from an Article in the *Dublin Medical Press*, where its editor comments upon the different modes of incision practised and recommended by Professor Syme at different periods; and occasion is thereby taken, in justice to Mr. Syme, (?) to remark,—that Mr. Syme's claim is not to the mode of incision by which the operation was first performed by him, but to the operation itself. For both these quotations I hold Mr. Syme responsible, presuming that he furnished materials for his own memoirs, and because he is well known to exercise a very controlling influence over the pages of the *Northern Luminary*. An impartial inquiry into the literature of the operation for removing the superior maxillary bone, led me to adopt the motto prefixed to this communication; and I feel confident, from your character as an independent and faithful journalist, that you will not hesitate to give publicity to my narrative.

Prior to 1826, the mode of treating malignant tumours seated in the antrum consisted in partial excision of the diseased parts, and in their destruction by means of caustics, cautery, etc. As all these means had failed to arrest the progress of this destructive and painful species of tumour, it occurred to Professor Lizars, that the entire extirpation of the superior maxillary bone itself held out the only reasonable prospect of relief. Accordingly, in the letter-press attached to Part IX. of his "System of Anatomical Plates,"—a work highly and justly celebrated,—he has explained his reasons for suggesting such an operation, and given full, minute, and circumstantial details of the mode in which it should be performed. The preface bears date 1825, which is upwards of three years antecedent to Mr. Syme's case in 1829. Professor Lizars also showed the great advantage of the operation over every other mode of removing the disease, and obviated the objections which might be raised against it. The following quotation will be sufficient to substantiate his claim of originating the operation. "I am, therefore, decidedly of opinion, that unless we remove the whole diseased surface, which can only be done by taking away the entire superior maxillary bone, we merely tamper with the disease, put our patient to excruciating suffering, and ultimately to death." (P. 58.) But Mr. Syme has suppressed all knowledge of such information, and, in his published account of the case operated upon by him, and of the reasons that led him to resort to and adopt the operation, he acknowledges no authority but his own. With what a different spirit was the noble-minded Liston actuated, when he spoke of his colleague's claims, in his "Observations on Tumours of the Mouth and Jaws,"—a paper read before the Royal Medical and Chirurgical Society of London, and published in the "Medico-Chirurgical Transactions" for 1836. "The merit," says he, "of suggesting the possibility and advantage of removing the entire superior maxillary bone when the seat of disease, is, without doubt, due to Professor Lizars, for several years my colleague in the Edinburgh Royal Infirmary. The proposal, with directions for the operation, was published in his anatomical work, dated 1826." But Mr Liston was incapable of any dishonourable appropriation, for his honest heart and honourable reputa-

tion equally despised and disowned the paltry and pilfering arts of detraction. M. Gensoul, a name in surgery not behind that of Dupuytren's, has, at page 12 of his "Lettre Chirurgicale sur quelques Maladies graves du Sinus Maxillaire," acknowledged Professor Lizar's claim. The merit, therefore, of originating the operation, and showing its mode of performance, is due alone to Professor Lizars, and it is but an act of justice, that any attempt of indirectly transferring that honour to another, by evasion or suppression of the truth, should be exposed. In accordance with his views, Mr. Lizars had recourse to this operation in 1827, for a medullary sarcomatous tumour of the antrum; but was prevented completing it by "the hœmorrhagic disposition of the gum and palate," though he had previously "secured the common carotid artery of the affected side." The patient lost upwards of two pounds of blood in a few seconds, the blood welling out at every incision, "as if there had been aneurism by anastomosis." The patient survived the attempt seventeen months, lingering out a most loathsome existence, and suffering great agony." Professor Lizars, in his second operation, 1st August, 1829, successfully removed the superior maxillary bone, and also for the third time in January, 1830.

In examining M. Gensoul's operative labours in the same field, we find from his treatise on the subject referred to,—

1. That the removal of the superior maxillary bone for an osteo-sarcomatous tumour was performed for the first time by him in the "Hotel Dieu de Lyon," page 18, "le 26 Mai, 1827, à 10 heures du matin, en présence du plusieurs medecins distingués de Lyon, et d'un grand concours des élèves."

2. In the same hospital, he, for the second time, successfully removed the superior maxillary bone, p. 30, on the "21 Janvier, 1828."

3. "L'Ablation du maxillaire superieur," was performed for the third time, p. 36, "le 23 Mars, 1829."

4. And the same treatise contains an account of the 4th operation, p. 43, "Le 6 du mois d'Avril, 1829."

Let it be remarked, that all these operations were performed before the one published by Mr. Syme. The course which M. Gensoul pursued in publishing the result of his experience, stands in striking contrast to the rapid announcement which Professor Syme makes to the world of his isolated doings, and the comparison is still more unfavourable to the candour of the Edinburgh Professor, when we consider his attempt in directly arrogating to himself, and indirectly detracting from others, "the honour to whom honour is due." M. Gensoul published his cases in 1833. In order to ascertain the remedial value of the operation in preventing recurrences of the diseases, he had declined publishing the operations until their results were determined by time, the ultimate arbiter which alone correctly tests the truth of opinion and experiments. The history of these cases shows, that in the first, second, and fourth, the "*guérison fut complète*," after the lapse of four and five years; and that, in the third case, the patient was relieved of the disease for eighteen months, when its beneficial results terminated, death having occurred "*deux ans après l'operation, puis repullulation.*" But what information does Mr. Syme's case afford? Merely that it was operated upon in May, and its history written in a month afterwards, for the purpose of being hurried into print in the next number of the *Edinburgh Medical and Surgical Journal*, into which it seems to have been thrust as an additional communication. He could not wait for the October number of that journal, wherein the first quarterly account of the cases treated in the hospital where the operation was performed appears. In that report, its author shortly expresses himself "as at a loss to account" for matters progressing favourably, that is, in three months after the operation. But here the narrative drops. So far as I have been able to trace this case further in Mr. Syme's Quarterly Reports, its history "is a blank." The ultimate result of the operation, like that of the perineal section, is never told, and his regard for them, like Viola's love, lets "concealment feed" upon them, like "Patience on a monument, smiling at death." The race, we are told, is not to the swift; but surely, he that claims to be first, should have no place, if, when weighed in the balance, he be found wanting. I am, &c. SCRUTATOR.

MR. HAWKER AND THE PROVIDENT DISPENSARIES.

[To the Editor of the Medical Times.]

SIR,—I have to request space in your columns for the accompany documents, which, with a few words of explanation, will be sufficiently intelligible to your readers who take an interest in the establishment of Provident Dispensaries. Having, for a series of years, felt a deep and growing interest in the principle on which they are founded, I felt anxious, if possible, to join the Society which had been organised for the purpose of promoting its adoption in the metropolis and throughout the country. The main obstacle to my following this course was the existence of charges confidently made and widely circulated against the Secretary, by those who had been brought into close contact with him during his official connexion with the Free Hospital, then in North Audley (now in Orchard) street. Having but one object in view, viz., to arrive at the true state of matters, and to render to all their dues, I undertook the very irksome, and as it turns out, very thankless task of bringing the subject formally before the Council. This I did by letter (addressed to Dr. Moore) of date 26th (not 21st) February. In it, I proposed a full investigation "before a *Court of honour*, composed of gentlemen of known character, approved and unbiassed judgment, and accurate business habits;" and added, in order to prove the sincerity of my motives and conduct, the following voluntary pledge. "I need scarcely say, that if Mr. Hawker shall be fully and honourably acquitted by such a tribunal as that I have mentioned, I shall most gladly lend a helping hand to repair the damage to Mr. Hawker's reputation which his own refusal to vindicate it has occasioned."

The long-expected rejoinder was delivered by Mr. Hawker on (I believe) the 7th inst., when the subjoined resolutions were agreed to without any inquiry into the accuracy of Mr. Hawker's statements and wholesale imputations. The "parties connected with the Dispensary to which he was formerly attached," were there, doubtless, only because they "were ready to testify on his behalf." Why was the door so carefully closed, not only against his accusers, but against those gentlemen whom he so shamelessly traduced? My firm belief is that, had even one (much more all) of them been present, Mr. Hawker's *olla podrida*, which seems to have been as much relished by "the Court of Investigation," would have been reserved as a tit-bit for a more select company. I am, &c.

Grosvenor-street, May 20, 1851. A. P. STEWART.

"10, Saville-row, May 10, 1851.

"Dear Sir,—I am requested by the Court of Investigation, held on Thursday (Wednesday?) last, at 33, Edward-street, Sir Fortunatus Dwarris in the chair, to forward to you the enclosed Resolutions. There has been some delay in calling the meeting, arising from Mr. Smith's illness, and consequent inability to come to town, his presence being deemed indispensable.

"Mr. Hawker's statement had been long prepared, and parties connected with the dispensary to which he was formerly attached were ready to testify on his behalf. This defence of his conduct, with corroborative testimony, was fully heard on Thursday. I cannot now enter into the subject of your last letter to me; but I am of opinion you have been misinformed respecting Mr. Hawker.

"I am, dear Sir, truly yours,

"Dr. Stewart." "J. MOORE.

"*Resolved*—That the statement now made by Mr. Hawker, in refutation of the imputations contained in Dr. Stewart's letter to Dr. Moore, of date 21st February, 1851, is most satisfactory, and that Mr. Hawker is fully worthy of the confidence of the Council of the London Provident Society, in holding his appointment as their Secretary.

"Carried unanimously.

(Signed) "FORTUNATUS DWARRIS."

"*Resolved*—That the thanks of this meeting be accorded, and are hereby given, to the members of the Council, for their conduct in bringing the subject of the investigation before a general meeting.

"Carried unanimously.

(Signed) "FORTUNATUS DWARRIS.

"74, Grosvenor-street, May 17, 1851.

"My Dear Sir,—I have to acknowledge your note and enclosure which announced to me officially, on the 12th instant, what I had heard at great length five days before, from some of those who had been present at your meeting. Pardon me if I hint, that the place where I should have received my information of your proceedings, and of the extraordinary attack which, as I understand, was made upon my character and motives (with the sanction, of course, and approval of the managing Council), was at the meeting itself. Believing, as we do, that had you ventured to summon my friends and myself to that meeting, the resolutions might possibly have been very different, you cannot ask us to attach the slightest weight to such a verdict as that you have forwarded to me.

What I proposed was, that your Secretary should meet his accusers face to face, and that, in the event of his successfully meeting their charges, he should receive from us who stood in doubt of him, a full, formal, and public verdict of acquittal. Your Secretary (with the countenance of the Council) insists

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this is my last indictment at the bar, we were made to an innocent man) by abusing us behind our backs, and obtain a verdict of acquittal from some persons unknown, in the absence of every one of his accusers? If you are of opinion that I have been misinformed," I think there can be little, if any difference of opinion among impartial on-lookers, as to the mode adopted to convince me that I have been so. It only remains that the Profession and the public judge between us.

I am, my dear Sir, yours faithfully,

Dr. Moore. "A. P. STEWART."

THE MANSLAUGHTER OF A LUNATIC.

[To the Editor of the Medical Times.]

SIR,—From the notice which lately appeared in the *Medical Times*, under the heading, "Manslaughter of a Lunatic," the public would infer, that the deceased, George Harvey, came by his death from brutal treatment received in the Devon County Asylum. As such was by no means the case, and as it is of importance that this error should be corrected, you will oblige me by inserting in your next Number the following particulars.

George Harvey, an innkeeper and butcher, living at Chagford, in this county, was admitted into the Devon Asylum on the 21st of March last. He was not admitted as a pauper, but in a charitable class, paying a small sum for his own maintenance. On his admission his body was much bruised, and the skin on his ankles and wrists abraded, and partially ulcerated by ligatures; and, in addition to these injuries, which were of a superficial nature, and not dangerous to life, the patient complained that his breast bone had been driven in three weeks ago by John Harvey, the man who had charge of him at his own house at Chagford, jumping on his chest with his knee. On examination the sternum was not found to be displaced, and no crepitus could be felt; but, underneath the right pectoral muscles, which were much swollen, and a fluctuating tumour over the sternum, a smooth click, like the rubbing together of cartilage, could be felt; and disruption of the costal cartilages was diagnosed. The right side of the chest was dull on percussion, the vesicular murmur absent, and the breathing tracheal. The patient died on the 31st of March; and on examining the body, the sternum was found to be fractured transversely just above the junction of the 3rd rib; the cartilage of the 2nd rib on the right side was separated from the rib, and the cartilage of the 3rd rib on the left side was separated from the sternum. The 5th and 6th ribs on the right side had also been broken, in their middle third, at a recent period, and had been united by callus. The right lung was consolidated and firmly adherent to the parietes, except underneath the broken cartilage of the 2nd rib, where it was separated by a collection of pus; extensive purulent infiltration existed under and through the right pectoral muscles, dividing them into layers. The left lung had its tubes filled with mucous secretion, but was otherwise healthy.

The evidence at the Coroner's inquest fixed the date at which the injuries were received at three weeks before the patient's admission, and, consequently, at thirty days before his death.

The jury did not return a verdict of manslaughter, but the following:—

"That deceased died from severe injuries inflicted upon his chest by John Harvey, in his attempts to secure him from acts of violence. That it does not appear that the said John Harvey was actuated by malice; but the jury are unanimously of opinion, that his conduct was cruel and most reprehensible, and wholly unjustifiable by the circumstances."

The reserve expected from the officers of lunatic asylums would have prevented my sending this communication to you, had not your previous notice of this case demanded some explanation, in justice to the institution and to the attendant who carefully and anxiously nursed this patient while he was in it.—I am, &c.

JOHN CHARLES BUCKNELL, Medical Superintendent.

Devon County Lunatic Asylum, Exminster.

NEW APPLICATION OF VULCANIZED INDIA-RUBBER.

[To the Editor of the Medical Times.]

SIR,—Among the numerous uses to which vulcanized India-rubber is from its peculiar nature, so admirably adapted, there is, perhaps, not one of more real value, or one more deserving the patronage of the public, than its application to the tires of wheels.

By its means all noise is prevented; the carriage is as if rolling along on a soft cushion, without any of that shaking or jolting which is inseparable from all vehicles, no matter how good the springs, having the common wheels. In addition to these great advantages, the draught is considerably lightened, and the wear and tear of the carriage much lessened. For this great addition to our comfort in travelling, we are indebted to Messrs. Marks and Co., through whose kindness I have had several opportunities, during the past few months, of personally experiencing their luxury, and have lately been still more convinced of their very great utility and importance by the comfort they afforded to an invalid I had to remove to the neighbourhood of London. This patient assured me that the easy and noiseless motion they impart to the carriage exceeded her most sanguine expectations, and that, notwithstanding she had been conveyed a distance of five miles over a partly paved and partly macadamized road, she experienced scarcely any fatigue. These remarks will, I think, be sufficient to convince even the most sceptical of the necessity of the noiseless wheels being applied to all vehicles, whether for horse or hand draught, intended for invalids. And if to these advantages we add their great economy (for I believe it to be impossible for them to *wear out*, from the fact of the edge of tires which have gone some 3000 miles being now as sharp as on the first day they were applied) their superiority in every respect to iron tires becomes established. Knowing how desirable it is at times to remove patients from certain localities to others of a more healthy character, and knowing also how ill-fitted the patients frequently are to undergo the fatigue consequent on travelling in carriages as at present constructed, I have ventured to bring before the notice of the Profession an invention which, I hesitate not to say, will, when known and appreciated, be in universal adoption with them as well as the public at large. I am, &c.

19, Langham-place. ALFRED MARKWICK.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 16th inst.:—

ARMSTRONG, LANCELOT, Camberwell.
BRENNAN, GEORGE, Cork.
BRITTON, THOMAS, York.
DAVIS, JOHN, Sunderland.
JACKSON, NEVILL, Stamford, Lincolnshire.
LANG, EDWARD, Dublin.
RALPS, EDWARD, Tunbridge, Kent.
SILVERMAN, JACOBUS, Middlesex-place, Paddington.
WHITE, THOMAS, Chester.
WILLDERS, FREDERICK WILLIAM, Chesterton, Huntingdonshire.

MILITARY APPOINTMENTS.—23rd Foot, Assistant-Surgeon Vesey Agmondisham Brown, M.D., from the staff, to be Assistant-Surgeon, vice Seaman, promoted. 53rd Foot, Thomas Bussett Reid, gent., to be Assistant-Surgeon, vice Hardie, appointed to the staff. 91st Foot, Staff-Surgeon of the 2nd class, Thomas Ross Jamesun, M.D., to be surgeon, vice Armstrong, promoted. Hospital staff; Inspector-General of Hospitals, with local rank, John Robertson, M.D., to be Inspector-General of Hospitals. Deputy Inspector-General of Hospitals, Wm. Hacket, M.D., to be Inspector-General of Hospitals, with local rank, vice Robertson, who retires upon half-pay. Staff-Surgeon of the 1st class, James Barry, M.D., to be Deputy Inspector-General of Hospitals, vice Hacket, promoted. Surgeon Daniel Armstrong, from the 91st Foot, to be Staff-Surgeon of the 1st class, vice Barry, promoted. Assistant-Surgeon Wm. Campbell Seaman, M.D., from the 23rd Foot, to be Staff-Surgeon of the 2nd class, vice Jameson, appointed to the 91st Foot. Assistant-Surgeon Gordon Kenmure Hardie, M.D., from the 53rd Foot, to be Assistant-Surgeon to the Forces, vice Brown, appointed to the 23rd Foot.

MEDICAL APPOINTMENTS AND VACANCIES.—A house-surgeon is wanted for the Prestwich Lunatic Asylum, Salford; salary, 60*l.* a year, with board, furnished apartments, washing, and attendance. The candidates must be unmarried, and be M.R.C.S. and L.S.A. At the Warrington Dispensary, a resident house-surgeon and apothecary is required; salary, 100*l.* a year, with residence, fire, candles, and attendance. Candidates must have the license of the Apothecaries' Company, as well as other testimonials. At the Bradford Infirmary, a house-surgeon is wanted; salary not stated. A steady, responsible *person*, M.R.C.S., of some standing and experience, who will be likely to hold the appointment for some years, will be preferred. A medical attendant is also required at

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the West County Lunatic Asylum, Devizes; salary, 60*l.* a year, with board and apartments. A gentleman, fully qualified to practise, who has paid some attention to the treatment of insanity, preferred. The trustees of the British Museum purpose appointing a Swiney Professor of Geology; salary, 140*l.* a year. The candidates must be M.D. of the University of Edinburgh. The Professorships to be held for five years. The Canterbury Association require surgeons for ships about to sail for the settlement on or before the 28th inst.

OBITUARY.—On the 16th instant, at York-terrace, Regent's-park, Charles Shillito, M.D., formerly of the West Essex Militia, and late of Putney, aged 69. On the 17th inst., Dr. Edward Clark Baker, late of Walcot-terrace, aged 48, of consumption. Murdered lately in California, Dr. Jarvis, of Texas.

DEATH OF DR. HENRY MARSHALL.—This truly excellent man, with whose person and worth many of our readers must have long been familiar, died on Monday week, after a protracted and painful illness. Dr. Marshall was born at Kilsyth in 1775; he studied medicine at the University of Glasgow, and in 1803 became surgeon's mate in the navy, a service which he soon left, and, in 1805, was appointed assistant-surgeon to the Forfarshire regiment of militia. In 1806 he became assistant-surgeon to the 1st battalion of the 89th Regiment, and proceeded with it to Ceylon, in which island he remained till the spring of 1821. In the same year he was appointed to the staff, and stationed at Edinburgh. After remaining here for two years, he was removed to Chatham, and from thence went to Dublin as surgeon to the recruiting depôt; from that time till 1830, Dr. Marshall was actively engaged in his public duties. He was then gazetted as Deputy-inspector General of Army Hospitals, and retired on half-pay. About this time he settled in Edinburgh, where he has remained ever since. Few men have had the honour of doing so much substantial good as Dr. Marshall. We may safely say this. In the words of Dr. Craigie, "he not only performed the duties of the military medical officer in different climates in the most praiseworthy and conscientious manner; but did everything in his power to render his long and varied experience beneficial to his successors. He was the first to show how the multiplied experience of the medical officers of the British army, at home and abroad, might be applied, by methodical arrangement and concentration, and the use of computation, to furnish exact and useful results in medical statistics, medical topography, the geographical relations of diseases, medical hygiene, and indeed every branch of military medicine. He was the first not only to suggest this method of inquiry, but to show in what manner it could be carried into effect. Dr. Marshall must be regarded as the father and founder of military medical statistics, and their varied applications. He was further the steady and almost the only real friend of the common soldier, in exposing the multiplied and pernicious evils of intemperance, and showing how fertile a source it is of crime and military delinquences and offences. Lastly, it is no less creditable to him that, through good and bad report, he stood forward as the indefatigable champion of humanity—as the advocate of a more rational and less degrading system of managing soldiers; and that, with judgment equal to his benevolence, he has laboured (and as we now know successfully) to demonstrate the cruelty as well as the absurdity of the ordinary methods so long pursued, by means of restraint, coercion, torture, and punishment, and that, with great good sense, he has inculcated the principle, that in governing soldiers, they are amenable to the same arguments and considerations by which other men generally are influenced—all this, and much more, Dr. Marshall has done." Besides an immense number of valuable papers in medical and military journals, and in Parliamentary reports and returns, Dr. Marshall published the following works:—"On the Medical Topography of Ceylon;" "On the Enlisting, Discharging, and Pensioning of Soldiers;" "The Military Miscellany;" "Description and Conquest of Ceylon;" "On the Feigned Diseases of Soldiers," etc., etc.

THE CORONERSHIP.—The Middlesex magistrates have proposed to do away with the office of the coroner, the duties being transferred to the stipendiary magistrate; the principal objections which have been urged against the existing system, being its expensiveness, the immoderate exercise of the powers of the office, the cumbrousness of the machinery, the exceptionable mode in which the coroners are elected, the want of sufficient publicity to their proceedings, and the inconvenience and discredit consequent upon the concurrent and occasionally conflicting jurisdiction of the coroners and the magistracy. Should the abolition of the office be refused, they next propose to pay the coroner by salary instead of fees. There are many valid reasons why the office should not be abolished, but none why the payment for the service should not be by salary. The duty of the coroner is to inquire into cases of sudden and suspicious death, even when no one in particular is supposed to have caused it. The magistrates only inquire when a person is before them charged with the crime, and in many instances, if the inquiry were to be postponed until there was a prisoner before them charged with the offence, the fleeting evidence afforded by a *post-mortem* examination would be lost. Much impediment to justice would result from the abolition of the office, to be remedied only in that case by making the justices, both magistrates and coroners, thus adding to the cumbrousness of the machinery.

THE MEDICAL OFFICERS OF THE DISPENSARIES, LIVERPOOL.—On Thursday, a meeting of the Governors and Subscribers to these Institutions was held at the Clarendon-rooms, for the purpose of electing two honorary Medical Officers to the North Dispensary, to supply vacancies caused by the resignation of Mr. Alanson, and the election of Mr. Chalmers to the Northern Hospital. Mr. Behrend and Mr. Manifold were elected by a large majority. The result was as follows:—Mr. Behrend, 296; Mr. Manifold, 269; Mr. Kemp, 122; Dr. Thomson, 48.

MR. BATTY, jun., has recently been appointed Assistant House-surgeon to the Liverpool Southern Hospital. He is a man of considerable ability

PAUPER LUNATICS.—A proposal is before the Court of Aldermen for the building an asylum for pauper lunatics for the City of London.

ASHTON BOARD OF GUARDIANS.—At a recent meeting of the Board two medical officers' bills were brought forward for consideration. The first was from Dr. Lees, for 2*l.*, for attending to one of the men who had been injured by the late explosion at Heys' colliery. The medical officers consider that such cases should not form part of their Union duties, but the Board would not allow payment of the bill. The next was a charge of 5*l.* made by Mr. Brierly, of Stalybridge, for setting a broken arm. The patient was removed to the hospital the next day, and the Board considering Mr. Brierly not entitled to the full amount, ordered the case to be referred to the clerk to make inquiry what amount was due to him. A medical man, unconnected with the Union, would be the best referee. 2*l.* 2*s.* would be a fair remuneration. Mr. Brierly having attended the patient only once, made too large a demand, the Poor-law Commissioners clearly contemplating in the payment of 5*l.*, attendance to the termination of the case.

MARYLEBONE BOARD OF GUARDIANS.—Another complaint has been preferred before this Board, against one of the medical officers; on this occasion the complainant was a surgeon, Mr. O'Connor, of George-street, Manchester-square; and the ground of his complaint against Mr. Gilham, the medical officer, was the not having ordered the removal of a man named Shehan to the workhouse infirmary, Mr. O'Connor alleging that the man died from sheer exhaustion, produced by want and destitution. Mr. O'Connor stated that he was called to Shehan, and found him lying in a damp kitchen, on a bundle of shavings, and almost without covering. The man had pneumonia and bronchitis—diseases likely to be kept up by the cold damp kitchen in which he lay. He told the friends the man must be removed to the infirmary, and he thought him capable of undergoing the fatigue. This was not done, although Mr. Gilham saw the man the same day. Shehan died on the following morning. He might have been removed with perfect safety when he first saw him. To this statement Mr. Gilham demurred. He asserted that the man was sinking when Mr. O'Connor was called in, and that it would have been dangerous to remove him, with the risk of being censured by the coroner, if the man had died through the removal. Dietetic and other stimuli, with food, had been furnished by the parish authorities. Some unpleasant questions were put to Mr. O'Connor by the board, which he must have found it difficult to reply to, more especially those having reference to his interference with the patients of other medical men. In the present instance, he acted very wrong, as he should have communicated, by note or personally, with Mr. Gilham, and not left a mere verbal message with the ignorant friends of the deceased. It was elicited, also, that this was not his first appearance at the Board as a complainant against the parish medical officers. Mr. Bell, indeed, said that Mr. O'Connor was certainly on the look out among the poor to bring cases against the medical men before that Board, and, when it had been done, he believed that on no occasion had any blame been attributed to any officer in any case. The charge against Mr. Gilham was dismissed.

CERTIFICATES IN LUNACY.—A young woman from the Poplar Union-house, was taken before Mr. Ingham last week, to obtain his signature to a certificate consigning her to the county lunatic asylum. The surgeon, who had already signed the document, was asked his

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reasons for so doing; he stated that he had been informed she was in the habit of running about the streets naked, and had committed other indecent acts, and, further, that he judged her to be insane from an interview he had had with her. The acts charged against her she denied; and the magistrate refused to sign the certificate, alleging that the surgeon should not act on hearsay evidence, but should have several interviews with a supposed lunatic, before he did that which might consign him to an asylum for life; otherwise, no person's liberty would be safe. He added, that he should incur a tremendous liability if he certified the female was insane, because a workhouse nurse told the surgeon she was. The magistrate was partly right; a very strict investigation should be made in all such cases, unless the facts are very palpable, and danger to the community be apprehended from the continued liberty of the lunatic; but, in all cases, the surgeon must draw his inferences in part from hearsay evidence aiding that of his own senses.

DEATH FROM CHLOROFORM.—A death from the effects of chloroform, administered with a view to its anæsthetic action, is reported from the Stepney Union-house. The unfortunate man was a baker. The dose given of the chloroform was small; half a drachm being employed first, and, that failing to produce any action, another half drachm was used, and the fatal result occurred. The surgeon who administered it, said that he had examined the man and found nothing to prohibit its use. He attributed the death to a peculiar idiosyncrasy, rendering the man very susceptible of the action of the chloroform; that is to say, he did not know in what way to account for it. The manner in which the chloroform was administered is not mentioned.

APOTHECARIES' HALL.—The Court of Examiners have resolved:—

1. That a preliminary examination for junior students of the Medical Profession would be desirable, as an important auxiliary to their subsequent professional studies.

"2. That such examination should comprise an inquiry into the students' knowledge of the Latin and Greek languages, and of the elements of mathematics.

"3. That students should be admissible to such examination at any period from the date of their apprenticeship to the completion of the first winter session of their curriculum.

"4. That such examination should, in the first instance, include the following subjects, viz.:—

"1. The first book of Virgil's Æneid and Cicero's Oration for Milo.

"2. The Greek Testament to the end of the Acts of the Apostles; or, the first book of Xenophon's Anabasis, at the option of the candidate.

"3. Algebra, as far as Simple Equations.

"4. The first book of Euclid's Elements.

"5. That student who pass this examination satisfactorily should not be subject to any subsequent examination in Latin, except the Pharmacopœia Londinensis and Prescriptions.

"6. That students who have not passed this examination should for the present be allowed, as heretofore, to undergo the preliminary examination in Celsus and Gregory, after they have completed two winter sessions of their medical studies."

THE QUEEN v. HILL.—In this case Lord Campbell gave judgment in the Exchequer Chamber, on appeal, on the 3rd instant. The defendant, a keeper at Peckham Lunatic Asylum, was convicted of the manslaughter of an unfortunate person confined therein, principally on the evidence of another lunatic, a man named Donelly, afflicted with a delusion, but who clearly displayed at the trial his love of the truth, and his perception of the distinction between facts as they really occurred, and the impressions made by the delusions under which he laboured. He stated that he believed the violence was committed on a Monday, which was proved to be the fact, although "the spirits" wished to persuade him it was on a Tuesday. Hill appealed against the conviction, on the ground that the evidence of a lunatic could not be taken. Lord Campbell, in delivering judgment, said, the Court entertained no doubt upon the matter. They thought the rule had been properly laid down by Mr. Baron Parke, namely, supposing the witness to labour under a delusion, it was for the judge to say whether he was competent at the time to be brought forward as a witness, and, the judge having decided that, it was for the jury to say what credit was to be given to his evidence. The witness Donelly was perfectly rational, except as to one point, and the opinion of the Court was, that his evidence had been properly received. The conviction was therefore confirmed. This is an important precedent for future cases, and will tend much to protect unfortunate lunatics from the violence of their keepers.

QUICKSILVER MINES IN CALIFORNIA.—It is stated that the ore from these mines is of the richest quality, the average yield being from 40 to 60 per cent.

HOSPITALS OF LONDON.—1850.—Number of Cases treated; Patients Resident, or Population; Deaths; Term of Residence; Deaths to 100 Cases; and Annual Deaths to 100 of the Sick Population:—

Number of District.		Total Cases Discharged, Cured or Otherwise, or Dead, 1850.	Average Term of Residence in Hospital.	Average Number of Sick in Hospital.	Deaths Registered, 1850.	Deaths to 100 Cases.	Deaths to 100 Beds, assumed to be continually occupied by Patients.
	General Hospitals:—		Days.				
3	St. George	3006	32	264	231	7·69	87·50
4	Westminster	1658	31	141	138	8·32	97·87
5	Charing Cross	1101	33	98	70	6·36	71·43
7	Middlesex	2568	36	256	189	7·36	73 83
9	University College	1131	35	109	128	11·32	118·52
9	Royal Free	766	22	46	37	4·83	80·44
13	King's College	1305	29	105	132	10·11	126 71
18	St. Bartholomew	5657	32	491	373	6·69	76·76
22	London	3870	30	317	278	7·18	87·70
27	Guy's	4037	43	476	357	8·84	75·00
27	St. Thomas	4162	38	434	268	6·44	61·75
	Total (or average) ...	29161	34	2736	2300	7·54	80·41
	Hospitals for Special Diseases:—						
10	Small Pox	314	17	15	56	17·83	373·33
10	Fever	618	26	37	95	15·53	256·76
1	Lock	397	48	53	...	...	...
1	Consumption	289	107	85	67	23·18	78·82
	Total (or average) ...	1618	46	189	218	14·41	115·34
	Military and Naval Hospitals:—						
4	Grenadier Guards'	1320	22	80	29	2·20	36·25
4	Coldstream Guards'	878	15	36	17	1·94	47·22
4	Scots Fusilier Guards'	602	36	59	11	1·83	18·64
35	Royal Ordnance...	4977	21	265	38	·76	13·33
36	Dreadnought Ship	2121	25	144	78	3·68	54·17
	Total (or average) ...	9898	22	606	173	1·75	28·60
	Lunatic Asylums, &c.:—		Yrs.				
16	St. Luke	203	·97	196	15	7·39	7·65
20	Hoxton House (Miles')... ...	123	3·23	397	45	36 59	11·34
21	Bethnal House (Warburton's)	156	2·98	528	47	30·13	8 90
25	Grove Hall	153	2 66	406	54	35·53	13·33
29	Bethlem	394	·98	387	35	8·88	9.04
32	Surrey New County	284	3·16	739	95	40·60	12·86
33	Peckham House...	184	2·60	478	49	26·63	10·25
33	Camberwell House	119	2·70	321	40	33·61	12·46
	Total (or average) ...	1363	2·21	3451	330	24·23	11·01

DEATHS *in the Metropolis for the week ending Saturday, May* 17, 1851.

CAUSES OF DEATH.	May 17.				Sum of Ten Weeks.
	0	15	60	All Ages.	
ALL CAUSES	470	346	183	1002	8805
SPECIFIED CAUSES	469	346	182	997	8743
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	156	27	13	196	1678
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	1	26	15	42	473
3. Tubercular Diseases.	87	126	9	223	1906
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	55	39	26	120	1120
5. Diseases of the Heart and Blood-vessels	2	25	12	39	273
6. Diseases of the Lungs, and of the other Organs of Respiration ...	88	43	45	176	1194
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	18	23	11	52	580
8. Diseases of the Kidneys, &c. ...	...	6	1	7	84
9. Childbirth, Diseases of the Uterus ...	...	3	...	3	30
10. Rheumatism, Diseases of the Bones, Joints, &c.	3	4	...	7	70
11. Diseases of the Skin, Cellular Tissue, &c.	...	...	...	...	12
12. Malformations	3	...	...	3	27
13. Premature Birth and Debility ...	16	5	...	21	217
14. Atrophy	17	...	1	18	128
15. Age	...	...	42	42	498
16. Sudden	4	2	...	7	106
17. Violence, Privation, Cold, and Intemperance	19	18	7	44	285
Causes not Specified	1	...	1	2	62

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TO CORRESPONDENTS.

[To the Editor of the Medical Times.]

SIR,—Would you oblige a subscriber by giving an answer to the following in your next?

A and B reside within two miles of each other; their practices intersect; and they are on very good terms.

A is called to one of B's patients at night, who lives close to B, and who was taken suddenly ill; A meets B next morning at the case, when B asks him to allow his patient to send him (A) a fee, which A refuses, and asks B to tell his patient not to do so.

In a few days A receives a fee and keeps it.

A was called in again under similar circumstances, and, on meeting B next morning, tells him that on the former occasion a fee was sent him, and learns that B did not then request his patient not to send A a fee.

A asks B to tell his patient so now; but B says he does not like to interfere.

On A receiving a second fee should he return it to B's patient, with a polite note, informing him that it is not etiquette to receive a fee under such circumstances?

Or, should A keep the fee?

Or, should he, the first time he meets B's patient, tell him not to send a fee on any future occasion?

The answers to these queries will much oblige SCOTUS,
A Regular Subscriber.

[A acted correctly in keeping the fee. The fact of A being a friend of B's makes no difference in the case. B's patient was taken suddenly ill, and required aid which B could not afford. The patient sent for A, and therefore he ought to pay A. Had B been sent for, and been from home, and some one acting for B had requested A to see the patient, the case would have been different; or, had B requested A to see the patient for him, then A should either have sent the fee to B, or have requested the patient to send it to B. The former would appear to us the more polite of the two.]

ST. MARY'S HOSPITAL.

[To the Editor of the Medical Times.]

SIR,—I have looked in vain for an amend for the unjust attack upon me in your Journal of last week. I beg to inform you, therefore, that unless an ample apology is made in your next Number, an action at law will be immediately commenced against you. I am, &c.,

11, Westbourne-crescent. JAMES NEWTON HEALE.

[We strongly recommend Dr. Heale to the anxious care of his friends.]

Syntax.—Whose, in the place mentioned, is incorrectly used. Whose cannot be applied to inanimate objects; it is the possessive case of who, singular and plural. We say, the man whose life was saved; and, the men whose lives were saved. We ought not to say, the disease whose symptoms, but the disease, the symptoms of which. With SYNTAX, we could point to many who use the word whose, when they should say, of which; but, for all that, it is incorrect.

Peter Bell.—Time has cleared many mysteries, solved hard problems, made crooked ways straight, converted the impossible into the possible; it has raised the beggar to the throne, and clad the king in the beggar's weeds; it has replaced the untrodden desert by the populous city, and the world's mart by the pathless wilderness; and time will, too, but he must have patience, work, among other miracles, the particular one for which Peter Bell prays.

Nemo.—Correctly named. Nobody but a nobody would have asked the question.

Veritas.—There is no truth in the thing.

1851.—Try again—"Labor omnia vincit." No medicine-Cæsar ever said, "Veni, vidi, vici."

M.D. is not a physician unless a Licentiate or Fellow of a College of Physicians. Doubtless, a Fellow of the College of Physicians of Edinburgh is a Physician in London as much as in Edinburgh.

Scribe.—Mere nonsense—idle trash. Let it pass as the wind that no one listeth.

Amicus Alter.—Thanks. Sub judice lis est. Judgment will be given in due time.

Mr. Hindler.—Certainly not.

Mr. R. O. Th.—We must see the remainder of the paper before deciding.

Critic.—We never insert anonymous reviews. The editor of a journal is responsible for the soundness of the judgment passed on the merits of a book; consequently, if he does not actually write the review, he secures the service of some one in whose opinion he can repose absolute confidence. Over this department of our Journal we watch with a jealous eye.

Ambo.—There is no difficulty in the matter. The fee should be divided.

Mr. E. H. Mussen.—Writers ought to be more merciful; they kill without a pang. It is perfectly true that Sir Robert Carswell was not long since spoken of by a contemporary as among the dead, and his dying speech chronicled. It is no less true that M. Gueneau de Mussy is alive, although Virchow says, that he died of typhus fever in Ireland.

Juvenis.—Maranta Arundinacea. The name is by some said to have been given to the plant from the natives applying it as an antidote against the virus communicated by their poisoned arrows. A species of curcuma, found wild in some parts of the East, yields much of the so-called East India arrow-root.

A. B. C.—Bhoonjwur and Arwur are the names given by the natives of Calcutta to the two kinds of rice in ordinary use; but of these two kinds there are nearly forty varieties, *e.g.*, saljhat, gheesa, beldar, kalundee. Thus, then, A. B. C. and his friend are both right.

Mr. Brady.—We have not space in our present Number for the impertinent letter of this Huddersfield Homœopath. It is in print, and will appear next week—no unfit punishment for the writer. We shall also then publish Dr. John Taylor's reply to Mr. Brady; for it was not mete nor honest that so much poison—Mr Brady delights in metaphor—should go forth without its antidote. If our leisure should permit, we may also honour Mr. Brady with a few remarks upon his communication.

[To the Editor of the Medical Times.]

SIR,—A Subscriber would feel obliged by your stating in your next Paper what the usual fee is for performing the operation for the permanent cure of Hydrocele, with attendance until well. I am, &c., JUSTICE.

P.S.—A rich farmer is the patient alluded to, and the operation successful.

[What would be a feast for a peasant might be a fast for a prince. So with fees. We have no recognised code of Medical Ethics; and, until the Profession decide upon a tariff of charges, we fear much misunderstanding will exist between patient and practitioner. If our Correspondent will, however, favour us with the number of his visits, the distance from his residence, and other circumstances of the case, we will give him our opinion as to the fee he should receive.]

[To the Editor of the Medical Times.]

SIR,—I will feel much obliged by your directing me under the following circumstances:—I am an Irish surgeon, and wish to qualify for English practice and appointments. Will a medical degree render me eligible, and enable me to dispense my own medicines, or must I obtain the Apothecaries' Hall diploma? I enclose my card. I am, &c. L.R.C.S.I.

[If our Correspondent desire to dispense medicines prescribed by himself, and to be enabled to charge for them, he must procure the licence of the Society of Apothecaries. Without such licence he would be an unlawful practitioner.]

[To the Editor of the Medical Times.]

SIR,—May I ask the favour of your informing me of what use the diploma of the College is in England? and whether a member can recover, in a Court of Law, a bill for medicines supplied in a surgical case,—suppose we say gonorrhœa, or syphilis, as I presume these are surgical cases. My object in troubling you is, a medical case having just been decided against me at the Bow County Court. I attended a woman in her confinement in January, 1847: the medicines required afterwards amounted to 10s. 6d. In February, 1848, I again attended, and at that time puerperal fever raged to a fearful extent here,—she was attacked and recovered; this was the second attendance,—the two bills amounting to £2 18s. 3d.; and, thanks to a "professional friend," the husband found I was not qualified, as he called it, at the time of my attendance; urged this as a legal objection. The judge after reading the Apothecaries' Act decided against me, although I stated I was a member of the College. I was apprenticed to a M.R.C.S.L. in 1823; consequently, may be said to have been in the Profession near upon twenty-eight years; and, from pecuniary difficulties, of no ordinary kind, have only just been able to obtain my diploma, (1849) and recover myself; and I do think it very hard such nice distinctions are made. The surgical case I allude to (supplying medicines to a patient suffering first from gonorrhœa, then syphilis,) I am anxious to bring before the judge whilst fresh in his memory, but would like to be pretty certain of a verdict beforehand. I am, &c.

WELL-WISHER AND CONSTANT READER.

[A surgeon can claim for medicines administered by him in a surgical case; but he will be required to prove that the case fairly comes under that denomination. In the other instance recited by our Correspondent, he was clearly out of court.]

COMMUNICATIONS have been received from—

MR. CLARKE, of the Bristol General Hospital; DR. KNOX, of Strangford SCRUTATOR; DR. DRURY, of Camden-road Villas; DR. SLIGHT, of Portsmouth; THE CHURCHWARDENS OF MANCHESTER; MR. WOOLCOTT, of Maidstone; MR. HILL, of Hampstead; DR. JOHN TAYLOR, of Huddersfield; DR. STEWART, of Grosvenor-street; Professors LIZARS, of Edinburgh; L.R.C.S.I.; SIR JAMES EYRE, M.D., of Brook-street; DR. LIGHTFOOT, of Arundel-house, Fulham; MR. R. WARD, of the London Hospital; DR. RAMSKILL, of St. Helen's-place; MR. SPRATT, of Brook-street; MR. WIBLIN, of Southampton; MR. HENRY SLIGHT, of Portsmouth; A LOOKER-ON; A WELL-WISHER AND CONSTANT READER; MR. FORBES, of Devonport-street; JUSTICE; DR. BARCLAY, of St. George's Hospital; DR. ROE, of Plymouth; SCOTUS; MR. J. N. HEALE; SYNTAX; PETER BELL; NEMO; VERITAS; 1851; M.D.; SCRIBE; AMICUS ALTER; MR. HINDLER, MR. R. O. Th.; CRITIC; AMBO; MR. E. H. MUSSEN; JUVENIS; A. B. C.; MR. BRADY, etc.

THE SUPPLY OF WATER BILL.—The Bill for the supply of water to the metropolis introduced by Sir George Grey, provides for the fusion of all the existing Water Companies into one, and the consequent repeal of the Acts by which they are governed. There are several clauses providing for the purity of water for domestic purposes; but the recommendations of the Board of Health generally are not taken into account, and their important sanitary researches are unheeded. Government is to retain the power of dictating the sources whence the water is to be drawn. The Bill is further to insure a constant and continuous, instead of an intermittent supply. The Bill will give satisfaction to the Water Companies only. The public at large will derive but little benefit from it, either in a sanitary or pecuniary point of view. The *Morning Chronicle* says, "We are as far as ever from knowing whether our water is to be soft or hard, pure or full of vegetable matter—calcareous from the Gloucestershire hills, or limpid from the clouds which discharge themselves over Farnham."

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ORIGINAL LECTURES.

LECTURES

ON

DIGESTION, RESPIRATION, AND SECRETION,

GIVEN AT THE ROYAL INSTITUTION, TO THE MEMBERS, AND TO THE PUPILS OF ST. GEORGE'S HOSPITAL.

By H. BENCE JONES, M.D., F.R.S.,
Physician to St. George's Hospital.

(Continued from page 527.)

ON THE SALIVA AND PANCREATIC JUICE.

I showed you, in my last lecture, Gentlemen, some of the changes which the non-nitrogenous substances that exist in our food can undergo out of the body. I showed you the changes in starch, sugar, and fat. One of the most interesting changes, namely, the conversion of starch into sugar, I must again recal to your notice. I showed you that starch, which is an insoluble substance, could be changed, by the action of diastase, into a soluble gum, and also into sugar. I showed you how this took place in barley when malted; and I pointed out also what changes take place in starch when acted upon by alkalies and acids. If starch is mixed with moderately strong dilute sulphuric acid, and heated, and simply kept at a moderate temperature for some four or five hours, it undergoes a change—it loses all its properties, and becomes converted into dextrine and sugar. I have here some thin starch, sulphuric acid, and water. They have been heated at a moderate temperature for about four hours, and now no starch whatever will remain. I will pour some of the solution into a glass, and mix it with sulphate of copper and liquor potassæ, and, without applying any heat, a reduction will take place, (as I told you it would take place, even in cold,) and the sub-oxide of copper, which you see here, is precipitated. I might show you, that there is no starch present by the iodide of potassium test. The quantity of sugar present is manifested by the deep colour of the blue solution, in which a reduction of the oxide of copper will, when heat is applied, instantaneously take place, showing that the starch is really converted into sugar,—a change consequent upon the action of the acid on the starch. If, instead of treating the starch with acids, I treated it with alkalies, no similar effect would be produced upon it. The patent mode of preparing common starch, consists in treating rice, for instance, with dilute alkali; that is, treating a mixture of starch and albuminous substance with dilute alkali. The albuminous substance is thus separated and dissolved out, and the starch is unacted upon, and is thus obtained in large quantities. Dilute alkalies, then, have no effect upon starch, while acids have a powerful action; for not only has sulphuric acid this action, but hydrochloric acid and oxalic acid may be used by the manufacturer, for the purpose of changing starch into grape-sugar; but these acids require more time than sulphuric acid, in order to effect this change. I proceeded afterwards, in my lecture, to show some of the changes which take place in sugars by the action of ferments, that is, of albuminous substances in a state of active change; and ultimately I showed you the action of alkalies upon fatty substances; the saponification, or the separation of fatty matter into glycerine and fatty acids.

Having thus shown you the changes which take place out of the body, it is my purpose now to proceed to those which take place in the body. Just as, out of the body, the alkalies, and albuminous substances, as diastase and synaptase, aided by heat and moisture, act upon the different classes of substances which compose our food, so it is in the body. The agents which act upon the nitrogenous and non-nitrogenous substances in the body, are the same as those which act on them out of the body,—water, salts, alkalies, acids, ferments. These are present in the body, and have their proper re-actions upon the constituents of our food. These re-actions I hope to make in some respect clear to you in my subsequent lectures.

The salivary fluid, the gastric juice, the pancreatic fluid, the bile, and the intestinal fluid,—each contains the four classes of matter of which I have so often spoken to you as present in food. If I take the bile, or the saliva, I find that water is present, and fatty matter, as well as ashes and salts, and also albuminous substances. So if I take the pancreatic juice, or even the intestinal secretion, I can detect the same four classes of substances in it, and in all these different secretions; these are the efficacious substances which, acting upon the food, render it fit to nourish the body. I will, in my lecture to-day, take the saliva, and, if time permits, the pancreatic fluid, and show their composition and properties.

The latest analysis of the saliva is thus made by Frerichs:—

In Man—Saliva, sp. gr. 1004 *to* 1006.

	Water	994·10
	Solids	5·90
	Mucus and epithelium	2·13
	Salivary matter	1·41
	Sulpho-cyanide of potassium	·10
	Fat	·07
Alkaline and earthy	Chlorides, Phosphates, Oxide of iron	2·19

Not only is it the latest analysis, but perhaps it is the best which exists. Still the numbers must not be regarded as absolute: it is probable that the saliva is constantly varying in composition; and probably no two specimens that I could take in this room would be absolutely the same; but these numbers are sufficient to show you the general composition of the saliva, and to give you numbers which approximate to the truth. The quantity of saliva secreted probably varies very much. At an average, it is about ten or twelve ounces a day; and in disease, two or three pounds. It is secreted at all times; and we see, in cases of paralysis, that it runs over the lip when the muscles are paralysed and cannot restrain it, and keeps running continuously; and we know that, in some cases of sore throat, in which the difficulty and pain of swallowing are great, each mouthful of the saliva, as it is formed, produces, at very short intervals, intense pain in the attempt to swallow it.

The nature of the food has a great effect upon the saliva. The motion even of the muscles of the jaws upon the salivary glands has also an effect upon it, increasing its quantity, and causing it to flow at any time that the motion is made. If the food is very moist, but very little saliva is secreted. Thus one object of this secretion is made known to us,—that of moistening the food to enable it to be easily swallowed. The re-action of the saliva is very variable, even in health; generally it is alkaline, but this is by no means constantly the case; it changes at all times, especially in different stages of the digestive process; its alkalescence increasing while digestion is going on, and decreasing when it is over. In the specimen of saliva which I have here, and which was collected during digestion, you will observe there is a feeble alkaline re-action. Saliva may be acid, I have no doubt, from experiments I have made, and yet be perfectly healthy. When we remember that the salivary fluid is a mixture of the secretions of many glands,—for instance, of the parotid gland and of the submaxillary and sublingual gland, and the mucus of the mouth,—that its composition should be very variable will not appear remarkable. The alkalescence probably arises from the alkaline phosphate of soda, which can be shown to be contained in it, forming part of the salts of the saliva. The same alkaline phosphate which causes the alkalescence of the blood probably causes the alkalescence of the saliva. In addition to the water and alkaline phosphates, other salts are also present; and of these the most remarkable is that known by the name of sulpho-cyanide of potassium. This salt has this most beautiful and marked re-action; if I add to it a per-salt of iron an intense red colour is produced; and if I add again to this last a solution of corrosive sublimate, the colour immediately disappears. (Experiment.) Any solution which causes these re-actions may be concluded to contain sulpho-cyanide of potassium. I have here the product of nine ounces of saliva; I have evaporated it in a water-bath to dryness, and have thus driven off all the water. If I treat the residue with common alcohol, and keep it at a tolerably warm temperature for a few minutes, all the substances soluble in alcohol are dissolved. It must then be filtered, and the alcoholic liquid allowed to pass through. It is well, also, that this alcoholic liquid should be evaporated again to dryness. A residue is then obtained, such as you see before

you. This may be dissolved in water. But a simple alcoholic solution will be sufficient for the purpose of testing the saliva for sulpho-cyanide of potassium. That this salt is really present in this saliva you will see, if I repeat the former test. (Experiment.) Meconate of iron gives the same deep red colour as you have seen; but the colour does not disappear when corrosive sublimate is added. I find that it is not necessary to take so much as nine ounces of saliva for the purpose of this test. I have here a small quantity (not more than an ounce and a half of saliva,) and here is the watery solution obtained in the same way. The saliva was evaporated to dryness, treated with alcohol, the alcohol again evaporated, and the residue dissolved in water. Even in this small quantity the re-action will, I have no doubt, be perceptible. You see how distinct the red colour is. This is the most remarkable body existing in the saliva, being closely related, as you perceive, to hydrocyanic acid.

Cyanogen		$C_2 N = Cy.$
Hydrocyanic acid ..	H	$C_2 N = Cy.$
Sulpho-cyanogen		$S_2 C_2 N = Csy.$
Hydro-sulpho-cyanic acid	H	$S_2 C_2 N = HCsy.$

That such a body so nearly related to that most intense poison, prussic acid, should exist in the saliva, is, indeed, most remarkable. But, when it is remembered, that the saliva in some animals is highly poisonous,—that the serpent, for instance, from a peculiar salivary gland, secretes a most poisonous saliva, and that in other animals this secretion, when formed in a state of disease, becomes in the most intense degree poisonous, giving rise to hydrophobia,—it is not, perhaps, so remarkable, that, in the state of health, a substance bearing so close a relation to a poisonous substance should exist in it. I am far from saying, that the poison of the serpent, or hydrophobia, is related to hydrocyanic acid or prussic acid; it is probable they are much more complex bodies. Sulpho-cyanide of potassium itself does not appear to be intensely poisonous. Dogs have been given from thirty-one to sixty-two grains of it, but it seemed to pass through their system, partly changed and partly unchanged, without producing any decidedly poisonous effects upon the animals. After oil of mustard has been eaten, (which is a highly compound body containing sulphur,) it is said that the sulpho-cyanogen is found to be increased in the saliva. Eberle, a German physiologist, has stated, that in violent anger, the character of the human saliva becomes poisonous, and that the quantity of sulpho-cyanide of potassium is increased. This may be a matter of doubt; but, in whatever way we look at the substance, its existence in the saliva is certainly remarkable; and it is also most extraordinary that it can be detected with such ease. That its existence should ever have been doubted (for it has been doubted) could not have arisen from the want of care on the part of the operator, for it requires no careful manipulation; but from the circumstance, that in some rare cases it may not be present. As far as my own examination has gone, however, I have always been able to detect this substance.

The fatty matter of the saliva is a body which contains phosphorus, like the fats of the brain and some of the blood. There is a very small quantity indeed present in the saliva, and I have very little to say respecting it.

I pass now to the salivary matter,—the albuminous substance which exists in the saliva, which has been called the salivary diastase, because it has a re-action and a property resembling that body. Diastase, you remember, acts upon starch, and causes it to change into sugar; and the salivary matter of the saliva has the same property. This observation was first made in 1831 by Leuchs, a German physiologist, who discovered that starch was changed into grape-sugar when treated with saliva. To make certain of the test, the saliva should be filtered, evaporated, and boiled with alcohol, and separated from all other matters. But it is sufficient for my purpose to show you this re-action with saliva directly. I have a quantity of saliva which has been collected during two or three days, and it will, I have no doubt, answer my purpose, though fresh saliva is perhaps better. If this saliva be merely heated with starch, a change in the composition of the latter ensues; the starch takes up water, and becomes converted into grape-sugar. The change takes place almost instantaneously. It does not require any alkalies as has been stated, nor is it requisite that it should boil any length of time. (Experiment.) I will heat this thin starch with saliva only a few moments, and now the change has occurred. That this change has actually taken place, you will see by the ordinary test for sugar,—sulphate of copper and liquor potassæ. You will see that a blue colour is caused, and, on the mixture being boiled, a rapid reduction of the copper takes place, which indicates the presence of grape-sugar. I cannot conceive a more beautiful experiment than this instantaneous action of the salivary diastase upon starch. That no sugar previously existed in the starch, I might, if time permitted, show you, by testing the starch with sulphate of copper and liquor potassæ. You might, perhaps, think that this reduction of the oxide of copper was occasioned by the mucus or some other substance in the saliva, or by the boiling temperature causing the saliva to effect a change, which it could not effect at the temperature of the body; but experiments can prove that the saliva itself, by itself, has no power of quickly reducing the oxide of copper; I may make the experiment with the saliva alone, or with the starch alone, and, as you see, no reduction takes place; but, if I take a little of the same starch, and put it into the mouth, where it can be mixed with the saliva, and allow it to remain for two minutes at the temperature of the interior of the mouth, and then putting the mixture of saliva and starch into a test tube, mix it with a drop or two of solution of sulphate of copper and liquor potassæ, and leave it, without any application of heat, to stand for a few hours, reduction of the oxide of copper will occur. In these test tubes I have repeated this experiment with starch that has been held in the mouth two, three, four, and five minutes; and you see, by the quantity of oxide of copper which is reduced, that the longer the saliva is in contact with the starch in the mouth the more sugar is formed.

If you wish to obtain the sugar out of the mixture of starch and saliva, distilled water should be added, and the whole well shaken; the liquid should then be filtered; the solution which passes through the filter should be evaporated to dryness, and treated with boiling alcohol, which dissolves the sugar, and leaves albuminous matter undissolved. The alcoholic liquid should be evaporated to dryness, and dissolved in water. Thus the salivary matter, mucus, and much extractive matter, as it has been called, can be separated from the sugar, and then the re-action with sulphate of copper and liquor potassæ will be most evident.

I have told you that it is the salivary matter which produces this change of starch into sugar. Under what circumstances, then, is this action most decided? If saliva is exposed to the air, it loses its property of effecting this change; but if it be boiled it still possesses this property. If the vegetable diastase be boiled, it loses its property of changing starch into sugar; not so with the salivary diastase. Alcohol, when present, does not change the action of the salivary diastase, nor do mineral acids, even though strong, deprive it of its properties; and gastric juice, even when strongly acid (this is a most important fact, as I shall show you in my next lecture), does not in the least hinder it. Alkalies have no effect in changing starch into sugar; it is not the alkali of the saliva which produces the change, but it is the albuminous substances which effect it. The fluids of the mouth, as a whole, possess this action strongly. When the substance is attempted to be isolated by precipitating the salivary matter by alcohol, it seems that in some degree a change takes place in it, and it loses this power of reducing the starch and causing it to change into sugar. It is said that the pancreatic fluid effects this change even more intensely than the saliva; but, in a single experiment which I have made, it did not appear to me to be so active. The gastric juice, if alone boiled with starch, has no such action as the saliva or the pancreatic fluid. But it is found that gelatine, albumen, even parts of the brain, the heart, liver, lungs, and spleen, if left to stand until they undergo certain stages of decomposition, produce this change, though not nearly to the same degree as the healthy salivary matter.

I must say one word on the action of the saliva upon other non-nitrogenous substances which form our food. If saliva is boiled with cane-sugar, the latter undergoes no change; in twenty-four hours cane-sugar is not changed into grape-sugar; if gum or cellulose (which contain no nitrogen) are acted upon by the saliva, they undergo no change; it is upon the starch that the action of the saliva is most manifest and decided.

Lastly, I come to the action of saliva upon nitrogenous substances. It has been thought that the saliva has some chemical effect upon the albuminous substances which constitute our food. The best experiments, as far as I can judge, lead to the belief that the saliva has no such action:

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around the food, it tends to make it more easily swallowed, but it produces no chemical action upon the albuminous substances. The great chemical use of the saliva is to act upon the starch. It has been said that all the salivary glands have been extracted, or the ducts tied, and yet digestion has gone on well. This experiment, to me, is not only cruel, but worthless. We have seen that the chief action of the saliva is upon the starch; but if there is another substance in the body besides the saliva which has this action, such experiments must be useless, and it would be far better if they had never been made. The quantity of saliva bears no distinct and definite relation to the quantity of starch which is eaten; therefore we cannot look upon the saliva as the sole active agent in producing the change I have described. The most necessary object of the saliva is, as I have said, to moisten the parietes of the fauces and œsophagus, to enable the food to be swallowed, and not to effect the chemical change of the starch into sugar. This change is most important and necessary; but two secretions are provided for the purpose of effecting it. If moist food is eaten digestion can take place where no salivary fluid is mixed with the food; and we cannot, therefore, assume that the saliva is absolutely essential for the purposes of digestion. The food remains in the mouth far too short a time for a full change of starch into sugar to take place; and although, when the starch and saliva pass into the stomach, a further action takes place, and the gastric juice, though it neutralises the alkalescence of the saliva, does not stop the chemical action of the diastase upon the starch, but admits the change still to go on in the stomach, as I shall have occasion to demonstrate at my next lecture, yet, in conclusion, let me repeat, that the chief use of the saliva is to moisten the food; and this can be proved in the following way:—If certain quantities of food are taken and weighed before they are eaten, and after they pass down the œsophagus removed through a fistulous opening and re-weighed, the actual increase of saliva will be found to be directly proportioned to the degree of moisture of the food. Thus, if an ounce of food is taken perfectly wet, and is weighed as soon as it passes down the œsophagus to the stomach, (such experiments have been made,) no addition of saliva will have taken place; but if the food be taken dry it will have gained two or three times its weight. We may sum up the actions of the saliva thus:—The first object is to moisten the food. It dissolves, also, easily soluble substances. It exalts the taste, for perfectly dry substances are found to have no taste. The second great object of the saliva is to change the starch into sugar. To make an insoluble substance soluble.

It does not act as a stimulus to the gastric juice; for it does not appear, when saliva is put into the stomach alone, that gastric juice is secreted in consequence. It undergoes remarkable changes from medicine and disease; but it would take far too much time to dwell upon these in the present lecture.

I now come to a secretion which is closely related to the saliva, at least in one of its actions,—the pancreatic fluid. I have here (through the skill of Mr. Pollock) a small quantity of pancreatic fluid, obtained, as it always has been obtained, from a living animal. This experiment of obtaining it from living animals is no recent discovery. In Dr. Fordyce's "Treatise on Digestion," the second edition of which was published in 1790, the following remarkable passage occurs at page 70:—

"The pancreatic juice is another fluid. It is secreted by the pancreas,—a gland not unsimilar to some of the salivary glands. This gland has no reservoir, so that it is difficult to come at any quantity of the juice secreted by it and thrown into the duodenum. Upon inserting a small quill into its duct in a living dog there flowed out a colourless fluid, almost watery, having a saltish taste; and, on letting it evaporate upon a plate of glass, crystals were seen evidently of common salt and sal ammoniac, as far as we could judge by their figure, which was confirmed by applying a little of this juice to solution of silver, and making other such chemical experiments as we can make on very small quantities of matter; which, however, proved rather a ground of conjecture than satisfactory proof. Besides these salts, and probably the other salts commonly contained in the blood, there is found, upon evaporation, a colourless mucilage, which redissolves in water, but whose compound with water is not very difficible through water, although somewhat more readily than the saliva. These are all the properties that I could determine in the small quantity that was thus collected. It is further to be observed, that the secretion did not take place in the natural state; for the quill inserted into the duct might stimulate it, and occasion a different secretion, at least in some points, from that which naturally takes place."

This probably is the first statement containing any accurate information on the pancreatic fluid. It was obtained then, as it is now, for the purpose of experiment, from a living animal. M. Bernard's experiments upon the pancreatic juice have excited much attention. To obtain this fluid an incision is made in a dog (as in this instance) under the influence of chloroform; a tube is introduced into the pancreatic duct, and the fluid is allowed to collect in a small bladder at the end. Here is the apparatus, and the skill with which I saw M. Bernard introduce a tube into the duct can only be obtained by considerable practice. My diagram shows you the analysis, by Frerichs, of the pancreatic juice.

Pancreatic Juice of Ass.

Water	986·40
Solids	13·60
Fat	0·26
Alcohol extract	0·15
Water extract albumen	3·99
Chlorides, Phosphates, Sulphates	8·90
Carbonate and phosphate of lime and magnesia	1·20

You will observe it contains more solid matter than the saliva. Hence, probably, it is for some other purpose than to moisten the passages. In health it is, or rather should be, as Fordyce tells us, a perfectly clear and colourless fluid. It possesses an alkaline re-action, as you see in this specimen, by the re-action on test-paper. The peculiar properties of this juice depend on an albuminous substance, something like the salivary matter, which is not perfectly coagulable by heat, and which, when precipitated by alcohol, dissolves easily in water. It contains also a butter-like fatty matter. It contains no sulpho-cyanide of potassium; if I put it through the process I showed you before for the saliva, I should detect no sulpho-cyanide of potassium in it. The quantity which is secreted is probably very variable. The secretion takes place only when the food is in the stomach and digestion is going on. Frerichs, who has written by far the best work that has yet appeared on digestion, collected from an ass, in three quarters of an hour, 387½ grs.; and in a large dog, in twenty-five minutes, 46 grs. The peculiar property of this pancreatic fluid is similar to that which I have shown you the salivary fluid possesses. If it be mixed with a little starch, the same change into sugar takes place which you have already seen. In an experiment which I made yesterday, the reduction which took place was not so quick, so instantaneous as with saliva; it is said the saliva acts far less energetically than the pancreatic fluid; but in my experiment, the action of the latter was not so rapid as that of the saliva.

M. Bernard has made the remarkable statement: that the pancreatic juice is for the purpose of changing the neutral fatty matters taken as food, and converting them into fatty acids and glycerine,—that a saponification always takes place in consequence of the action of this fluid on fatty matters. He has stated this very decidedly, and has made some very beautiful experiments for the purpose of showing it. They are experiments which do not satisfy me; and experiments, moreover, leading to opposite conclusions have been made by Frerichs. I hold, also, in my hand a little treatise, "De Adipis Concoctione et Absorptione," by Dr. Ed. Lenz, published at Dorpat, in 1850, which gives the best experiments that I have met with. It contains statements of the action, out of the body, of the pancreatic fluid, alone or with bile and gastric juice, upon butter or oil, alone or mixed with starch. These experiments confirm me in my opinion, that this fluid has no peculiar power to change fatty matters into fatty acids and glycerine—that it has no specific power of saponifying the fats taken as food. That saponification to any considerable extent actually takes place in the stomach, or in the bowels, or even in the lacteals, is to me very doubtful. It is quite certain that a great portion of the fat which at the temperature of the body becomes fluid when taken as food, by being mixed with the pancreatic fluid, which is an albuminous liquid, with the bile, which also is a soapy liquid, and with the intestinal secretion, is minutely subdivided, and, being made into an

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emulsion, becomes capable of being taken up. This appears to me far more probable than that the fatty matter is changed by the pancreatic fluid into fatty acid and glycerine. That the pancreatic fluid is not necessary to enable fatty substances to be absorbed, has been shown thus by Frerichs and Lenz. After they tied the pancreatic duct in cats, they were given no food for from twelve to twenty-four hours, so that all the pancreatic juice which was in the intestine might have passed out of it. Food, consisting of milk, fat, flesh, or butter, was then given; and, after some hours, usually from four to eight, the animals were killed; and they found, over and over again, that the lacteals and the thoracic duct were full of milky chyle. Frerichs put a ligature round the small intestines of animals (who had eaten nothing for some time) much below the opening of the bile and pancreatic ducts; he then injected milk, or olive oil, or an emulsion of albumen and oil, into the intestine below the ligature, and, after two or three hours, he found the lacteals quite full of milky chyle. Experiments are detailed, in which butter was given in quantity to cats, but not one trace of the volatile acids of butter could be found in the bowels, in the chyle, blood, or bile. Frerichs also found that other animal fluids, like the pancreatic juice, as soon as they began to undergo decomposition, effected as much change of fatty matter into fatty acid and glycerine as the pancreatic fluid did. He also states, that the pancreatic juice, setting aside its chemical action, does not make a better emulsion,—that it does not divide the fat or oil better than other animal fluids. He found that when acidulated with hydrochloric acid, it had no action whatever on fat or on albumen,—that it had no power to act as a solvent of the albuminous part of our food. He states, that its uses are to change the starch into sugar, and to promote the secretion of the bile; that, with the aid of the bile and the intestinal fluid, it effects, though it does not solely effect, a fine division of the neutral fat which is fluid at the temperature of the body; but, further than this, he says there is no peculiar specific action of the pancreatic juice. The pancreas seems rather to be a supplementary gland to the salivary glands intended to insure a full change of all the starch taken into the stomach. At present, I cannot admit that its action on fatty substances in digestion is proved.(a)

Here I must bring the subject of the saliva and pancreatic juice to an end. In my next lecture I shall occupy your attention with the solution of the albuminous principles, by more especially inquiring into the action of the gastric juice.

ORIGINAL COMMUNICATIONS.

ON THE PATHOLOGY OF THE UTERUS, ITS ANATOMY AND PHYSIOLOGY.

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(Continued from page 456.)

III.—THE PATHOLOGY.

In order to apply the preceding anatomy and physiology, to elucidate the symptoms and treatment of the diseases of the uterus, it does not appear necessary to take into consideration all the diseases to which this organ is liable; but only to consider that portion of them which may be best adapted for the object in view. By adopting this course, I hope to render the subject less complicated, whilst, at the same time, I feel assured that the principles which may apply to one part of the diseases, may readily be applied to the remainder, without including them in the present Essay. The class of the diseases most suited for this purpose appears to be the functional diseases of the uterus, which are included under the terms "amenorrhœa, dysmenorrhœa, menorrhagia, leucorrhœa, chlorosis," and some add "displacements." But as most of these terms merely indicate a prominent symptom without indicating the disease which gives rise to this symptom—or, in other words, as this prominent symptom may be present in various diseases very dissimilar to each other; whilst other of the terms apply to constitutional diseases which affect secondarily the uterine functions, I am induced to seek an arrangement which will more correctly express the disease under which the organ labours, and at the same time be more applicable to my object.

In the endeavour to adopt a new arrangement of the diseases of the uterus, I am met at the outset with a class of diseases which, so far as my knowledge extends, has not yet been recognised. I allude to a class, the essential element of which consists in a condition of the uterus met with after parturition, and which depends upon a deficiency of the proper absorption which ought to occur after the birth of the child. By reason of this, the organ remains enlarged, and a larger amount of blood circulates through its vessels than ought to circulate in the healthy state; these two conditions forming the nidus for subsequent morbid phenomena, and constituting the basis of a large and important class of diseases which follow abortions, miscarriages, or labours at the full period. Guided by these reasons, I am led to prefer the following arrangement:—

I. FUNCTIONAL DISEASES.—(1.) In women who *have* borne children. (2.) In women who *have not* borne children.
- (a.) Congestion of the uterus and vagina.
- (b.) Acute and subacute inflammation of the vagina.
- (c.) Chronic inflammation of the vagina.
- (d.) Acute and subacute inflammation of the uterus.
- (e.) Chronic inflammation of the uterus.
- (f.) Inflammation of the uterus and vagina combined.
- (g.) Displacements of the uterus or vagina.

II. DEFICIENT ABSORPTION OF THE UTERUS AFTER CHILDBIRTH, AND ITS SEQUELÆ.

III. ORGANIC DISEASES OF THE UTERUS.

In the above sketch, I am fully aware that a serious objection may be made to the diseases depending upon deficient absorption after childbirth being arranged as a distinct class, as they, in reality, are deviations from the healthy structure of the organ, and hence organic diseases. However, the following reasons induced me to follow this plan:—(a) The comparative ease with which they are cured makes a marked and an important practical distinction between these diseases and organic diseases, properly so-called. (b) The structural condition of the organ, the subsequent morbid states to which it gives rise, and the modification in the treatment which it requires, makes an equally marked and important distinction between these diseases and functional diseases. A distinction has likewise been introduced between the same disease occurring in a female who *has*, and a female who *has not* borne children; for, in consequence of the tissues never perfectly returning, after pregnancy, to the original condition which they had, previous to impregnation, this altered condition so modifies the course and treatment of the functional diseases, as to render it advisable, on practical grounds, to make this distinction. Inflammation, ulceration, and induration of the cervix uteri, concerning which so much has of late been written, has not been included in the above plan, because I am led to believe, from a careful examination of the subject, that the statements made respecting it are based upon an erroneous description of facts, which has led to erroneous pathology and to improper treatment. At a future opportunity, I will examine the subject, and endeavour to show the correctness of this opinion.

In the succeeding part of this inquiry, I will endeavour, as far as possible, to connect together the functional diseases, and those produced by deficient absorption after parturition, seeing that the symptoms to which they give rise present a great similarity.

These diseases, as one class, are characterised, in marked cases, by the following symptoms. The patient is thin, with a depressed, melancholy expression of countenance; the complexion is pale and sallow, or of a dirty muddy hue; the movements are slow and measured, and the voice is weak and hesitating. These symptoms, however, may escape notice on the first interview, in consequence of a temporary hue of health passing over the face of the patient on any slight excitement. A feeling of great languor and debility is complained of, with pains in various parts of the body; in the head, in either hypochondrium, at the sides of the stomach, in the back, and down the thighs. A fulness and tender-

(a) Since this lecture was given, through a mutual friend, I have brought Dr. Lenz's experiments to M. Bernard's notice. He considers that further researches will prove that his discovery is correct.

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ness of the stomach is also a very constant symptom, and the walls of the abdomen are often drawn up on either side, and induce the idea of a temporary enlargement. The appetite is generally, though not always, deranged. Sometimes a total distaste for food is present; at other times the appetite is perfectly ravenous; the tongue is either pale, clean, and moist, or covered with a dirty white fur at the base; a peculiar disagreeable taste is also present in the mouth, especially in the morning, which gives a peculiar and disagreeable odour to the breath. The food frequently causes pain, and feeling of distension of the epigastrium, whilst a sensation of want and sinking is experienced previous to taking it. Frequent retching is not an uncommon symptom, as soon as the patient arises in the morning, and two, three, or four times in the day. Sometimes only a little phlegm is vomited with violent retching; at other times large quantities of sour, clear fluid come from the stomach. The bowels are generally confined; not unfrequently, however, they are at one time confined, at another loose; the urine at one time is thick and scanty, and at another it is clear and abundant. The pulse is not affected, except, when from the long continuance of the disease, the general health has become implicated. The skin is soft and moist. On inquiry, we find the nights are very restless, and frequently harassed by frightful dreams; that there is a fulness and confusion of the head, loss of memory, irritability of temper, great nervous excitability, with dimness of sight and aching of the eyeballs. The menstruation is disordered, either in the amount of accompanying pain, in the period of recurrence, in the quantity, or in the colour, with, generally, a varying amount of vaginal discharge; but this may be entirely absent.

However applicable this general description of the symptoms produced by uterine affections may be for the recognition of the presence of these diseases, it does not appear fitted for that careful analysis of the symptoms which is required in order to appreciate their cause and the mode of their production. It hence becomes necessary to divide them into groupes, and the division which I prefer is the following:—

(1) Direct symptoms, or those which are the direct sequence of the disease; (2) constitutional symptoms; and to these must be added, (3) local symptoms, or those found on a local examination of the part affected.

(1) *Direct Symptoms.*—These include (a) the pains in the back, abdomen, etc.; (b) the disordered menstruation; and (c) the discharges per vaginam.

(a) *The Pains.*—The pains are described as lumbar, lumbo-sacral, sacral, ovarian, etc., and radiating from these situations to other parts of the abdomen, and to the thighs. This description is, however, very indefinite and unsatisfactory; the indefinite character of which is the more to be regretted as having led to errors in diagnosis,—the situation of the pain in some cases being considered to indicate ovarian disease, in others, spinal irritation, etc.,—and consequent errors in treatment. Instead of the confusion which at present reigns, as to the signification of the pains which accompany uterine disorder, they are, when taken by themselves, and without the other constitutional symptoms, the almost sure indication of the seat of the disease, whether this be seated in the uterus, in the vagina, or in both these organs at the same time. When the duration and severity of these pains are further taken into consideration with the situation in which they are found, they very materially aid in the diagnosis of the nature and severity of the disease, and of the organ which was first affected, as well as indicating the organ or organs which are implicated at the time of examination.

When the disease is seated in the uterus, the pains are felt in the lumbar and dorsal regions, and in the course of the nerves emanating from these portions of the spinal column, the exact situation of the pain being determined by the part of the organ which is affected. When the cervical portion of the uterus is the seat of the disease, the pains are felt in the lower lumbar region,—generally through the lower two-thirds of this region,—and extending round the hips, above the crista-ilii, and a little over these bones, frequently accompanied with a sensation of weight, and thence down the sides of the abdomen to the iliac, inguinal, and hypogastric regions, and into the anterior and inner part of the thighs. When the disease is severe, and involves the whole of the part, the pains extend over all these regions, on both sides, and down the anterior and inner part of the thighs, down the front of the leg and dorsum of the foot, even to the toes. When the disease is partial, or confined more to one side, the pains are partial, or more felt on the side of the abdomen corresponding to the side of the uterus which is affected, than to the other parts. When the middle portion of the uterus is affected, the pains are seated in the upper part of the lumbar region, and lowest part of the dorsal region, and extend from thence round the upper part of the abdomen on a level with and above the umbilicus. And when the fundus of the uterus is the seat of the disease, the pains are found in the middle dorsal region, between the scapulæ, and extend from thence round the sides of the chest, in the course of the intercostal nerves, and beneath the scapulæ, to the sides and back of the chest. In slight but long continued cases of this description, it is not unusual to find the pain chiefly complained of over the region of the heart, which, when conjoined with nervous palpitation, is liable to induce the belief of this organ being the seat of the disease. In strongly marked cases of chronic inflammation of the uterus, which has continued for some length of time, the pains may be felt in all the parts which have been indicated; now most severe in one part, now more severe in another. But, in the examples usually met with in practice, only a portion of these pains, variously combined, are met with in each case.

In the situation wherein these pains are felt, the skin and muscles feel sore, and are tender to the touch. On the abdomen, the pressure of the bed-clothes, in severe inflammation, or of the dress, in less marked cases, causes inconvenience, and sometimes great pain; the parts feel very hot and burning to the patient, whilst to an observer they are warmer than natural; the skin is also highly sensitive to pinching, and considerable pain is induced by any movement which causes action of the abdominal muscles, as, for instance, when the patient is lying on her back, and endeavours to raise the shoulders or body forwards without assistance. In the thighs, the pains are increased by the action of the muscles in walking, etc.; or by any pressure, as a child sitting on the knee; whilst the skin is also very sensitive to slight injury. A sensation of fulness and distension of the abdomen also accompanies these pains, although the part is not perceptibly enlarged, and a "working," or unpleasant feeling, amounting in some cases to pain in the bowels, is much complained of, which frequently impresses the patient with the idea that aperient medicine is required.

That the pains above described arise from, or are produced by disease in the uterus, is shown by the careful observation of clinical experience. It is also shown by a simple experiment, viz., by pressing the finger on the lips and orifice of the uterus, during an attack of inflammation of this organ, when the pains may be increased or diminished by increasing or withdrawing the pressure; in doing this, however, care must be taken to select a case suitable for the purpose. The same thing is further shown by the application of irritating substances to the uterus, in those cases which require it, when the pains are increased for some time in intensity in the situations in which they originally existed, and which have been already indicated. In estimating the value of this last experiment, care must be taken that other pains than those arising from the uterus are not excited, either by the speculum pressing against the vagina, during the introduction of it, or afterwards, or by the secretions of the part carrying the irritants to the vagina, and so inducing pains from this part. The origin of these pains is again shown by attention to the course and situation of the pains which accompany parturition, and which attend upon dysmenorrhœa, when this is caused by an affection of the uterus alone. I am aware that it is most usual for the uterus and vagina to be affected at the same time, yet cases do occur in which the uterus alone is the seat of the complaint; and, in these cases, the pains will be felt in the situations which have been described.

When we consider the situation which these pains occupy, it will be evident that they are felt along the course of the branches of nerves given off from the lumbar nerves; and in other cases along the course of the lower dorsal or intercostal nerves. The branches which arise from the lumbar nerves being—the posterior branches, supplying the muscles and skin of the back; the ilio-hypogastric, ilio-inguinal, and genito-crural nerves, which supply the skin and walls of the lower part of the abdomen, and the skin of the upper part of the thigh; the external cutaneous nerve, which supplies the skin of the anterior and outer part of the thigh; and the obturator and anterior crural nerves, which supply

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the muscles and skin of the inner and anterior part of the thigh, the skin on the front of the leg, and on the dorsum of the foot. In further proof that the pains felt in the abdomen are situated in the branches of the lumbar nerves, we have:—(a) the course of the pain; this being downwards and forwards following the distribution of the nerves. In many instances the course of the ilio-hypogastric nerve may be traced by pressing the finger on the abdomen, along the situation of the pain, when it will be found to come from the lower lumbar region, pass round above the crista ilii, and thence downwards and forwards to the lower part of the stomach and upper and inner part of the thigh; (b) the depth of the pain, as ascertained by pressing in the situation of it; here the patient distinctly asserts that it is near to the fingers pressing, *i.e.*, in the skin and muscles, and not in the deeper seated organs; (c) the tenderness of the skin, which, being supplied by branches from the lumbar plexus, is exceedingly sensitive to pinching—the long recognised sign of "hysterical pain or tenderness." That the pains felt around the base of the chest are seated in the course of the intercostal nerves is too evident to require any further proof.

After this demonstration, that the pains which accompany an affection of the uterus are situated in the parts supplied by the branches from the lumbar and intercostal nerves, we naturally inquire,—How is it that the pains are found in these situations? This question receives a ready solution by refering to the anatomy of the nerves of this organ. And it is most satisfactory thus to demonstrate the correctness of an elaborate and lengthened anatomical inquiry, by a reference to those symptoms which are experienced, when the organ, which was the object of the anatomical investigation, is suffering from disease.

In the anatomy, it is stated that the lower and middle parts of the uterus are supplied by branches of cerebro-spinal nerves from the lumbar plexus and lower dorsal nerves, and that the fundus of the uterus derives its cerebro-spinal nerves from the upper intercostal nerves, through the medium of the splanchnic. Now, bearing these facts in mind, we have but to remember, that the disease, seated in the uterus, is sufficient to effect that change, whatever it may be, in the spinal nerves distributed to it, which, when carried to the spinal cord, is reflected from thence, producing the sensation of pain along the branches of nerves arising from the same part of the cord, from which the branches distributed to the uterus arise; or, in other words, that the change produced in the uterine nerves, through the disease with which the organ is affected, is reflected, through the medium of the spinal cord, upon the nerves arising from the same part of the cord, and induces the sensation of pain along the course of these nerves; or, as not unfrequently happens, near the terminal distribution of these nerves.

On reflecting upon the description of the pains which has been given, it might appear that no pain was experienced in the organ affected, whilst severe pains were felt in other parts of the body, at a distance from the seat of the disease; and, consequently, that this condition was contrary to the doctrine I supported, when examining some points in the physiology, viz., that there was no reason for assigning to the ganglia of the sympathetic the office of "cutting off sensation." However, it must be borne in mind, that the previous description has reference to the pains which are complained of by the patient when describing her sufferings, and does not, by any means, infer that no pain is experienced in the seat of the disease, for this would be contrary to what is found to be the case. Certainly, when a patient first describes her illness, no mention is made of pains in the region of the uterus, and the whole burthen of the complaint rests upon the reflected pains, and even should the question be asked, whether any pain or inconvenience is felt deep in the pelvis, or in the uterus itself, a hesitating answer of "No" is given, and immediate reference is made to the back, side, or other part, as being the seat of the chief complaint. But, when attention has been directed to the uterus, as being the seat of the disease, and when the relief, obtained by leeches or other remedies applied to the organ, has convinced the patient that this is really the origin of the complaint under which she is suffering, then the condition of the pains in the uterus will be described, and, generally, less notice taken of the reflected pains. It will also be found, that the uterus was always the seat of pains, though, from their minor severity, they were considered of less importance than the more severe pains felt in other parts of the body. That the uterus is really the seat of pain may also be ascertained by placing the finger on the lips of the organ when it is inflamed, when, by gentle pressure, considerable suffering is caused to the patient, arising from the exalted sensibility of the part, as well as from the reflected pains being also increased. In proof of this position, I may also appeal to the fact, that all women who suffer from an uterine affection for any length of time acquire the knowledge, that great pain is really felt in the uterus itself, and can be distinctly discriminated from the reflected pains by the different character of the two. This knowledge is soon acquired, when the periodic application of remedies to the uterus is a necessary part of the treatment, and the patient will sometimes be enabled to say what part of the organ is touched, from the sensation of the part alone. From these facts, it is evident that there is no reason, even in this case, for assigning to the ganglia of the sympathetic the office of "cutting off sensation," seeing that, pain is really felt in the part affected, although, from its minor severity, less notice is taken of it.

When the vagina is the seat of disease, the reflected pains are then felt in situations different from those which indicate the uterus to be the seat of the affection. They are seated in the sacral region, round the glutei, in the perinæum, down the posterior part of the thighs, in the calves of the legs, and sometimes in the soles of the feet, even to the toes. The character of these pains is also stated to be different from that of the reflected pains arising from disease of the uterus. Although it is impossible distinctly to express in words wherein this difference consists, yet an intelligent patient will always, from her own sensations, clearly discriminate between the two, after her attention has been directed to the subject. They have been described to me as "a little aching pain," when seated in the situations which indicate the uterus to be the seat of the affection; and of "a shooting, aching pain," when experienced in the situations of the reflected vaginal pains. Whether this description be correct or not, it appears certain, from the testimony of several sufferers, that the characters of the two series of pains are different, and can be distinguished by the patient from each other.

The reason why the pains arising from an affection of the vagina are felt in the situations assigned to them, will be perceived by again referring to the anatomy of the nerves of the part. It is there mentioned, that the branches of the cerebro-spinal nerves furnished to the vagina are chiefly derived from the sacral plexus, and hence we might expect that the reflected pains would be felt along the course of the nerves derived from this plexus. Such, indeed, is the case; the posterior branches of the sacral nerves, the greater and lesser sciatic, and gluteal nerves, being distributed to the parts already indicated as the seat of the reflected vaginal pains. As in the case of the uterus, the disease seated in the vagina appears to produce that change in the nerves distributed to the part, which change, when transmitted to the spinal cord, is reflected, in the form of pain, along the nerves arising from the same part of the cord; the character of the pains differing, in consequence of the anatomical condition of the parts not being the same. In this case, little or no objection can be made to the ganglia of the sympathetic "cutting off sensation," as the ganglia found on the vaginal nerves are very small, and on several of the nerves do not exist at all. Yet the same phenomena occur as in the diseases of the uterus. The reflected pains are those chiefly, or only, complained of. No mention is, at first, made of the pains in the part affected; and, although the reflected pains are more severe, when they arise from the vagina, than when they arise from the uterus, yet this is only in accordance with the well-known fact, that the greater the amount of cerebro-spinal nerves supplied to a part, the greater will be the pain felt when this part is afflicted with disease.

That the pains which have been attributed to diseases of the vagina as their producing cause are, in reality, caused by an affection of this organ, is readily demonstrated by introducing the finger into the vagina, and pressing upon the part affected. When this is done, with sufficient care to avoid error, the pains are increased in the situations in which they were previously felt. Perhaps the most satisfactory proof is afforded when, by accident, an irritating lotion has been thrown into an inflamed vagina. In one of two instances which I have seen, the pains created were most intense, and felt in the sacrum, hips, perinæum, outside of

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thighs, calves of the legs, soles of the feet, and even to the end of the toes.

Should the disease extend to both the uterus and vagina at one time, the two series of reflected pains will then be met with in the same individual. It is most usual to meet with this combination in practice, the exception being, for either the uterus or the vagina to be alone affected. In some cases, the disease will affect chiefly the uterus; in others, it will be situated with greatest severity in the vagina; yet, in all these cases, the knowledge of the signification of the various pains is of great importance, as indicating, not only the organ which is most affected, but also that in which the complaint commenced; both of which points may be readily diagnosed by attention to the history of the pains attending the disease.

9 A, Langham-place.

[To be continued.]

REMARKS ON THE ETIOLOGY OF PHTHISIS.

BY EDWARD SMITH, M.D., LL.B., B.A.
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PAPER II.

THE INFLUENCE OF SEX.

M. Louis believes, that the mortality from phthisis is greater amongst females than males, "at least in France, and in Paris more particularly;" and deduces this opinion from an examination of 163 cases of the two sexes occurring in hospital practice. He also appeals to the experience of M. Benoiston de Chateauneuf, who found, that of 43,000 patients admitted on account of various diseases into three of the Paris hospitals, one in 35 males, and one in 21 females, died from phthisis.

In opposition to this statement, we must quote the opinion expressed by the medical officers of the Hospital for Consumption, who, in their Report published in 1849, evidently incline to the belief, that the disease is more frequent in males than females, and support this on the four following grounds:—

1. Of 888 in-patients in this institution, 61 per cent. were males, and 39 per cent. females.

2. Of 3,470 out-patients, 61 per cent. were males, and 38 per cent. females.

3. The excess of applicants at a general hospital is not observed amongst males.

4. The deaths from phthisis in London from 1843 to 1846, (as recorded in the Registrar-General's Sixth Report,) were 53 per cent of males, and 47 per cent. of females; but in the provinces this order is reversed.

M. Bayle, as quoted by M. Louis, states that the mortality is about equal in the two sexes, and Sir James Clarke, in his valued work on consumption, is of the same opinion, after showing that the excess is found among males at Hamburgh, Rouen Hospital, Naples Hospital, New York, (except among the black population,) and in Geneva, and that in Paris the reverse is true.

Dr. Craigie thus expresses himself in his "Practice of Physic," P. 999, Vol. II:—"As to the influence of sex, it is now ascertained that it appears to be null, as the larger proportion of females shown to be affected by the distemper, by the reports of Paris and Berlin, is neutralised by the greater prevalence of the disease among males in Hamburg, Rouen, Naples, and Geneva. In the Royal Infirmary in this city, the disease is more prevalent among males than among females in the ratio of 3 to 2—three-fifths being men, and two-fifths women."

The want of accordance in the results of the investigations made by these able physicians is to be attributed to the faulty standard of comparison which alone was at their command, namely, the number of persons who chanced to come under their observation. It is evident that a correct result can follow only when the total number of cases occurring in a given and tolerably stable population is known to the investigator. The observations made by M. Benoiston de Chateauneuf would carry a great weight of *prima facie* evidence as to the correctness of the results in consideration of the great number of cases which were examined by him, and the very prevalent custom in France of both sexes in the lower classes applying for admission to the public hospitals; but, at the best, the result cannot inspire confidence to a greater degree than that of a high probability, and, therefore, so far the subject is left an open question.

This primary objection cannot be urged against the Reports published hy the Registrar-General, to which we shall now direct attention.

In the second Report, we find that the mortality among females in all England, in 1838, was greater than among males by 8 per cent. That among males was 16 per cent., and among females 19·2 per cent. of the mortality from all causes, or at the rate of 3·8 per 1000 living in males, and 4·1 in females. In 1839, the mortality among males was 3·7 per 1000 living in males, and 4 per 1000 living in females.

From the Tables given in the sixth Report, we learn, (after making the necessary computations,) that the ratio of mortality from phthisis in 1842 was greater amongst females than males in all England, and in 63 of the 42 English counties with both North and South Wales. The value of this fact will be rendered more evident by stating that the reverse is true in reference to the mortality from all causes, which is in excess among males in all England, in each of the eleven divisions and in 38 of the English counties, with both North and South Wales.

We now turn to the main object of these papers,—the investigation of the mortality from phthisis in 1847.

The proportionate mortality from phthisis in the two sexes is evidently greater among females for the whole of England, but the excess is much more marked in the various divisions, counties, and districts.

In England the respective ratios to the population are:—

	Males.	Females.
At the end of 1847 .	1 in 337	1 in 313·2
At the end of 1841 .	1 in 310	1 in 322·8

The mortality is greater among females than males, in nine of the eleven divisions of England, the excess being the most marked in the South Midland district.

Table 8.

Divisions Arranged in the Order of Mortality among Females.	Ratio of Mortality to the Population in 1847.	
	Males.	Females.
North Western	1 in 270	1 in 248
Eastern	— 3 7	— 283
South Midland	— 442	— 296
York	— 367	— 304
North Midland	— 381	— 309
ENGLAND	— 337	— 313·2
Welch	— 325	— 318
West Midland	— 369	— 327
North	— 349	— 330
South West	— 397	— 380

The mortality is greater among males than females, in the two remaining divisions, and the most evidently so in London; and it is worthy of remark, that in that division the absolute mortality amongst males is high, and amongst females low, which is the reverse of the fact observed in several of the divisions included in the preceding Table.

Table 9.

Divisions Arranged in the Order of Mortality among Females.	Ratio of Mortality to the Population in 1847.	
	Males.	Females.
London	1 in 264	1 in 353
South Eastern	— 366	— 379

The ratio of mortality among females exceeds that occurring among males in thirty-one of the forty-two English counties, viz., Bucks, Berks, Cheshire, Cambridge, Dorset, Durham, Derbyshire, Essex, Gloucestershire, Herefordshire, Hertfordshire, Hunts, Lancashire, Leicestershire, Lincolnshire, Monmouthshire, Middlesex (South-Eastern Division), Northamptonshire, Norfolk, Notts, Oxfordshire, Rutland, Somersetshire, Shropshire, Staffordshire, Suffolk,

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Sussex, Wilts, Worcestershire, Westmoreland, and Yorkshire, and is the most evident in the following counties:—

Table 10.

Counties.	Ratio of Mortality to the Population in 1841	
	Males.	Females.
North Riding	1 in 562	1 in 400
Bedfordshire	— 379	— 242
Hunts	— 444	— 291
Northamptonshire	— 377	— 267
Oxfordshire	— 373	— 222

The rate of mortality in males exceeds that found amongst females in the counties enumerated in the following Table:—

Table 11.

Counties.	Ratio of Mortality to the Population in 1841.	
	Males.	Females.
Devonshire	1 in 418	1 in 440
Cornwall	— 286	— 323
Northumberland	— 292	— 343
Cumberland	— 313	— 324
Surrey (part of), South East Division ...	— 393	— 426
Kent	— 306	— 329
Hampshire...	— 294	— 297

We have not made the necessary calculations to determine the ratio of mortality in each of the Welch counties; but in both North and South Wales, taken collectively, the excess occurs amongst the males, yet only slightly so in South Wales.

Table 12.

Counties.	Ratio of Mortality to the Population in 1841.	
	Males.	Females.
North Wales	1 in 292	1 in 303
South Wales	— 291	— 480

The ratio of mortality amongst females exceeds that of males in sixty of ninety-five districts which we have examined, and for which we have made the requisite computations, and more particularly in those contained in the following Table, in many of which the excess approaches to, or even exceeds, 100 per cent.

Table 13.

Districts.	Ratio of Mortality to the Population in 1841.	
	Males.	Females.
Sharllow	1 in 494	1 in 290
Belper	— 422	— 229
Chesterfield	— 351	— 203
Monmouth...	— 365	— 255
Swansea	— 430	— 237
Durham	— 346	— 210
Newcastle-upon-Tyne	— 380	— 234
Great Yarmouth	— 621	— 356
Melton Mowbray	— 476	— 225
Grantham	— 552	— 315
Lincoln	— 754	— 321
Gainsborough	— 616	— 315
Worksop	— 473	— 290
King's Norton	— 601	— 318
Buckingham	— 408	— 255
Witney	— 606	— 215
Northampton	— 379	— 231
Rotherham...	— 469	— 296
Richmond	— 591	— 336
Burslem } Potteries	— 213	— 110
Cheadle }	— 428	— 230
Tamworth	— 489	— 311
Wolverhampton	— 452	— 319

Many agricultural districts may be observed in the above list, and with them must be ranged the Potteries, including the districts of Wolstanton and Burslem, Stoke, Cheadle, and Leek, and also the iron district, including Wolverhampton, Westbromwich, and Dudley.

The remaining districts are arranged in the following table in which the reverse of the fact contained in Table No. 13 is evident.

Table 14.

Districts.	Ratio of Mortality to the Population in 1841.	
	Males.	Females.
Liverpool	1 in 124	1 in 213
Wigan	— 291	— 266
Bolton	— 243	— 248
Manchester	— 200	— 227
Salisbury	— 172	— 186
Devizes	— 329	— 436
Exeter	— 276	— 349
Plymouth	— 329	— 390
Penzance	— 250	— 309
Scilly Islands	— 165	— 355
Bridgewater	— 350	— 410
Bath...	— 302	— 309
Bristol	— 260	— 299
Gloucester	— 238	— 253
Hereford	— 321	— 370
Shrewsbury	— 212	— 239
Walsall	— 300	— 316
Kidderminster	— 320	— 324
Birmingham	— 214	— 280
Coventry	— 249	— 323
Peterborough	— 290	— 302
Leeds	— 260	— 318
Sheffield	— 219	— 267
York	— 229	— 257
South Shields	— 420	— 441
Carlisle	— 260	— 287
Whitehaven	— 217	— 250
Ipswich	— 269	— 325
Norwich	— 322	— 393
Louth	— 300	— 325
Newport	— 239	— 256
Cardiff	— 235	— 253
Bangor	— 220	— 269
Nottingham	— 240	— 257
Bakewell	— 245	— 248

We notice the majority of our large manufacturing towns in the above table; and, although the difference in the ratio of mortality in the two sexes is ofttimes very trivial, it yet suffices to show that in these districts it is less amongst females. Many fishing ports have likewise this characteristic.

In Table No. 13 the ratio of mortality among females is both absolutely and relatively high; whilst in Table No. 14 that amongst males has this peculiarity.

Of 28 London districts which I have examined, only the four following have an excessive ratio of mortality in females over males:—

Table 15.

Districts.	Ratio of Mortality to the Population in 1841.	
	Males.	Females.
Bermondsey	1 in 220	1 in 202
St. Saviour, Southwark	— 258	— 232
Stepney	— 349	— 372
East London	— 306	— 276

The excessive mortality among males, in the remaining 24, is well marked in the succeeding Table:—

Table 16.

Districts.	Ratio of Mortality to the Population in 1841.	
	Males.	Females.
West London	1 in 133	1 in 238
City of London	— 420	— 635
Whitechapel	— 234	— 330
Shoreditch	— 215	— 312
Camberwell	— 228	— 542
Hackney	— 244	— 464
Clerkenwell	— 287	— 389
Newington	— 518	— 794
Strand	— 268	— 361
Westminster	— 256	— 388

It has now been shown that, in 1847, the ratio of mortality

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from phthisis, at "all ages," was greater amongst females than males:—

1st. In all England.
2nd. In 9 of the 11 divisions of England.
3rd. In 31 of the 42 counties, (it being equal in 4.)
4th. In 60 of 95 districts, selected without reference to this fact.

This accords with the opinion of M. Louis, and may suffice to set at rest the questions which have arisen on the subject, at least, so far as this country is concerned.

The marked exceptional character of the London district, in this respect, fully supports the correctness of the views so industriously developed by the medical officers of the Hospital for Consumption; and, since their experience was mainly or exclusively confined to the limits now indicated, it may be fairly assumed that they did not intend that their deductions should have a wider range of application.

In the following Table, the ratios of mortality in the two sexes are contrasted for various periods of life, extending from birth to age 60.

Table 17.

Age. Years.	Sex in which is the Highest Ratio of Mortality.	Localities.	Proportion	Exceptions.—(Counties.)
Under 1	Males.	ENGLAND. Divisions. Counties. North Wales.	9 of 11. 28 of 42.	London. Northern. Sussex, Monmouth, Durham, Westmoreland, Middlesex (part of), Bucks, Oxford, East Riding, Cheshire, Lancashire, Somerset, Hereford, Cambridge.
„ 5	„	ENGLAND. Divisions. Counties. North Wales.	8 of 11. 24 of 42.	North Western, South Midland, Northern, Welch, London. Cheshire, Lancashire, Somerset, Middlesex (part of), Bucks, Oxford, Northampton, Beds, East Riding, Durham, Cumberland, Westmoreland, Leicester, Monmouth, Sussex, and Kent (part of).
„ 10	Females.	ENGLAND. Divisions. Counties.	7 of 11. 29 of 42.	North Western, North, South Eastern, London. Lancaster, Dorset, Shropshire, Worcester, Durham, Northumberland, Lincoln, Notts, Surrey (part of), Kent (part of), Hampshire, Bucks.
„ 15	„	ENGLAND. Divisions. Counties.	10 of 11. 39 of 42.	South Western. Cumberland, Westmoreland.
„ 20	„	ENGLAND. Divisions. Counties. South Wales.	All. 39 of 42.	Northumberland, Kent (part of).
„ 25	Males.	ENGLAND. Divisions. Counties.	8 of 11. 17 of 42.	South Midland, York. Chester, Wilts, Cornwall, Gloucester, Shropshire, Hereford, Stafford, Worcester, Middlesex (part of), Hertford, Bucks, Oxford, Northampton, Hunts, Beds, Cambridge, West Riding, North Riding, Durham, Essex, Suffolk, Norfolk, Lincoln, Derby, Berks.
„ 30	Females.	ENGLAND. Divisions. Counties.	8 of 11. 35 of 42.	Welch, South Eastern, London. Devon, Cornwall, Cumberland, Suffolk, Kent (part of), Hampshire.
„ 35	„	ENGLAND. Divisions. Counties. South Wales.	10 of 11. 34 of 42.	London. Hereford, Middlesex (part of), Northumberland, Cumberland, Westmoreland, Norfolk, Monmouth, Hompshire.
„ 40	„	ENGLAND. Divisions. Counties. South Wales.	10 of 11. 31 of 42.	London. Wilts, Cornwall, Somerset, Middlesex (part of), Bucks, Cambridge, Northumberland, Cumberland, Rutland, Surrey (part of), Kent (part of).
„ 45	„	Divisions. Counties. North Wales.	9 of 11. 27 of 42.	England. South Eastern, London. Devon, Cornwall, Somerset, Warwick, Middlesex (part of), Bucks, Oxford, Northumberland, Cumberland, Monmouth, Surrey (part of), Sussex, Hampshire, Berks.
„ 50	Males.	ENGLAND. Divisions. Counties. South Wales.	7 of 11. 20 of 42.	South Midland, Northern, North Midland, Welch. Chester, Somerset, Hereford, Shropshire, Worcester, Hereford, Bucks, Oxford, Northampton, Hunts, Durham, Northumberland, Westmoreland, Norfolk, Lincoln, Rutland, Notts, Derby, Surrey (part of), Sussex, Hampshire, Berks.
„ 55	„	ENGLAND. Divisions. Counties.	9 of 11. 25 of 42.	York, Eastern. Dorset, Devon, Stafford, Hertford, Bucks, Beds, East Riding, North Riding, Durham, Westmoreland, Suffolk, Norfolk, Rutland, Notts, Monmouth, Sussex, Hampshire.
„ 60	„	ENGLAND. Divisions. Counties. South Wales.	9 of 11. 26 of 42.	South Midland, South Eastern. Wilts, Dorset, Devon, Somerset, Middlesex (part of), Hertford, Bucks, Oxford, Hunts, North Riding, Cumberland, Westmorland, Leicester, Lincoln, Rutland, Derby, Monmouth, Kent (part of).

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

BY

W. SENHOUSE KIRKES, M.D.,

Medical Registrar,

AND

HOLMES COOTE, Esq., F.R.C.S.,

Demonstrator of Anatomy in the Medical School.

STRABISMUS.

The taste for performing the operation for squinting can no longer be gratified to the same extent as during the few preceding years, in consequence of the general division of the internal rectus muscle of the eye, in whatever case the pupil happened to be rolled inwards. We have the opportunity, however, of witnessing another sort of squint, strabismus divergens, in which, as a consequence of the preceding division of the internal rectus, the pupil is turned outwards in a fixed position by the action of the external rectus, now deprived of its antagonist. The division of this muscle restores the eye to something like a straight position; but the operation is occasionally attended with this inconvenience, that the two oblique muscles pull the globe from the socket, so as to produce an unsightly prominence of the eye, attended by indistinctness of vision from stretching of the optic nerve. Sometimes the prominence of the globe is so great, that the lids cannot be closed

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And yet if a case of strabismus divergens should present itself, the surgeon has only to choose between leaving untouched this very unsightly deformity, which interferes most materially with vision, or of dividing the external rectus, which exposes the patient to a list of other annoyances.

On Saturday, March 29, Mr. Lloyd divided, in a girl aged 16, the external recti muscles, to relieve her from divergent squint affecting both eyes. The operation of the division of the internal rectus had been performed many years ago in a public institution, where there is reason to believe every possible skill and subsequent care was shown in the management of the case. The pupils became everted soon after she quitted the hospital.

On September 14, 1846, a little girl, aged 10, was brought to the hospital with strabismus divergens of both eyes. She had been operated upon, a year ago, at another hospital, for slight strabismus convergens affecting only the left eye. Her condition at that time rendered her almost entirely blind; she could scarcely venture to move about for fear of falling over objects.

In 1845 I saw a case in which one eye was turned upwards, the other outwards; the aspect was most unsightly. It could not be ascertained exactly what operation had been performed.

My friend, Mr. W. W. Cooper, was requested, in the summer of 1845, by a patient to put out an eye operated upon by an eminent surgeon for strabismus convergens; the man stated that he found the double vision so distressing that he was unable to pursue his work.

In 1844 I saw a gentleman, aged 18, who, after undergoing the operation of the division of the internal rectus, was obliged afterwards to keep the eye closed, for fear of being annoyed by double vision. He found this condition as bad as ever at the expiration of five years from the operation.

I believe that these unpleasant results of the operation for squinting are more common than supposed, and that they have been overlooked in consequence of their often manifesting themselves at considerable periods after the division of the internal rectus. H. C.

PROVINCIAL PRACTICE OF MEDICINE AND SURGERY.

BELFAST GENERAL HOSPITAL.

By A. G. MALCOLM, M.D.

CASES OF DELIRIUM TREMENS.

No. 6. George C—, aged 37. Recovered.

Case.—This man had been drinking for a fortnight previously, and had left off for four days before admission. First attack: he had always enjoyed good health, excepting occasional headaches after dissipation. He was admitted in mild delirium, with surface cold, and quiet pulse; bowels confined, and with difficulty moved. After a free action of the bowels, he slept for a considerable time, and awoke sensible, but excessively thirsty. In the evening of the second day the delirium returned, so violently as to require restraint. This state again readily yielded to anodynes, and he was reported quite convalescent on the fourth day.

Treatment.—Pills of extract. col. c. calomel and tart. emet.; and an ammonia mixture on admission. House draught, and turpentine enema afterwards; and, when bowels had been freely acted on, a mixture of blackdrop and tart. antim. in camphor mixture.

This was a mild case, the indications for treatment being based on the constipated state of the bowels and the nervous excitement, which were completely answered by the treatment pursued.

No. 7. George C—, aged 45, butcher. Recovered.

Case.—A strong, large man, and excessive drinker for at least six months, and during last five weeks has been in a state bordering on delirium tremens; his nights spent in horrid dreams, which last assumed the form of suicidal intention. On admission he was greatly excited, face flushed, and eyes suffused and red. Though he talked rationally, he resisted for a time being put to bed, and it was deemed necessary to restrain his movements. His pulse was low and weak, tongue foul and white, skin natural.

He slept well on the first night, and next morning presented a quiet state, which only continued, however, until third night, when most violent delirium tremens and the "horrors" regularly seized him. Pulse next morning 96, and feeble, and body bathed in profuse perspiration. He got no rest until the following day, which was the fifth since admission, after which he became quite collected, and the pulse soft and quiet, from which time he gradually and steadily improved, and was discharged on ninth day.

Treatment.—Ammonia and opium in mixture every two hours; a purgative (2 pills) of cal. ext. col. c., and tart. emet.; blackdrop, antimonial wine, and spir. chlor. mix. camphor julep as a draught. Afterwards opium, tart. emet., and camphor in pill every third hour, and, finally, ammonia in a bitter infusion, when nervous excitement had passed off.

No. 8. Mrs. H—, aged 50. Recovered.

Case.—Of delicate appearance and slight frame; had an attack of cerebral congestion one month previously, which yielded under the usual treatment. One day ill; delirious, with frequent bursts of violent screaming fits, and attempts to leave bed. The pulse was quick, mental delusions, skin dry, slept ill. Under the anti-spasmodics and purgatives she rapidly recovered, and in six days was as usual. A remnant of the nervous state long remained observable in her manner and habits.

Treatment.—Vesc. to the nape; turp. and asaf. enemas; and anodyne draught on admission, followed up by ammonia and valerian mixture, and occasional purgatives.

Though this cannot strictly be considered a case of delirium tremens, yet, being clearly one of nervous excitement, it is not inappropriately placed here.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

This Evening,	May 31.—Medical Society of London. Subject—Mr. William Taylor, "On Fatty Injection in the Treatment of Febrile Affections." Eight o'Clock.	
Monday,	June 2.—Epidemiological Society.	Half-past Eight o'Clock.
	Entomological Society.	Eight o'Clock.
	Chemical Society.	Eight o'Clock.
Tuesday,	June 3.—Linnæan Society of London.	Eight o'Clock.
Wednesday,	June 4.—Royal Botanic Society.	Quarter to Four o'Clock.
Thursday,	June 5.—Zoological Society.	Three o'Clock.
Friday,	June 6.—Royal Institution.	Nine o'Clock.
	Botanical Society of London.	Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, MAY 31.

HOMŒOPATHY AND ITS STATISTICS.

"If, Sir, statistics afford valuable aid in the advancement of science they are no less useful to those who wilfully essay to pervert facts."—*Mr. Brady's Letter in Medical Times.*

Thank you, Mr. Brady, for this pithy statement of your experience. If any man be entitled to utter this sentiment with authority, it is the writer of the homœopathic report of the Cholera at Huddersfield. In our Journal for May 3, we charged Mr. Brady with attempting to bolster up the baseless fabric of homœopathy by the publication of a grossly incorrect statistical report. Mr. Brady thinks it "would be absurd to expect fair and honourable criticism" from us. We have now, therefore, published his answer to our charge. Did he expect, by his impertinence, to provoke us to exclude it? We should have been very unwilling to deprive ourselves, any more than Mr. Brady, of the benefit of such a reply. Mr. Brady is not satisfied with Dr. Taylor's report, because that gentleman did not himself see every case of cholera. If we are to have no reports of epidemics except such as are written by individuals who have seen all

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diseases themselves, we fear we shall have a long time to wait for them. Did Dr. Parkes see all the cases referred to in his justly esteemed report of the mode of origin of the disease in London? Did the gentlemen composing the Board of Health see all the cases employed in their Report? Have the Fellows of the College of Physicians seen all the cases which they must use in the Report upon which they are known to be engaged? But we may quote higher authority than these. Mr. Brady has himself published a Report, not only of the homœopathic, but of the allopathic cases at Huddersfield. It was necessary for him to be accurate both as to the diagnosis and the numbers of his cases, because he undertook to deduce from his Report, as is shown in Dr. Taylor's letter, the per centage of the deaths to the recoveries under two opposite modes of treatment, that he might enable the *inhabitants* of Huddersfield to decide under which set of doctors they ought to place themselves. He did not issue circulars to the surgeons, and therefore, as it was doubly necessary he should, he, of course, followed his own rule, and *saw* all the cases he reported! If he did, what has become of the cases of recovery published by Dr. Taylor and omitted by Mr. Brady? If he did not, what are we to think of the estimation in which Mr. Brady holds his rule? No; Mr. Brady's Report is not constructed according to his rule, but according to a rule infinitely better adapted to the purpose he had in view. We commend it to the imitation of all persons who have a *similar* task to perform. Copy the deaths from the Registrar's book; add (to save appearances) one or two recoveries; pledge yourself for the accuracy of your Report, and *thus* you may establish an "unheard-of per centage of deaths;" *provided only* you are rather more fortunate than Mr. Brady, and happen to live in a place where no one is sufficiently awake to observe your doings. If, on the other hand, you are so unfortunate as to be observed, and to have your "rule" and consequent practice fairly and openly exposed in some medical journal, then boldly charge the writer with being engaged in a conspiracy to put down your true system, with having recourse to the "poisoned dagger" and "personal abuse," and with being your "salaried opponent,"—call the whole Medical Profession blockheads, "mutual throat-cutters," and interested partisans; and the chances are very many to one, that you will mystify the *public* (you need not mind the Profession), who will attain only to a confused perception that there is a quarrel among the doctors, and, with the generosity of Englishmen, will be pretty sure to come to the rescue of the poor victim of professional jealousy, and the ill-used martyr for the sake of truth.

But Mr. Brady has a moral as well as a statistical code. We extract from his letter one of his moral "rules," chiefly because it may be supposed to throw some light upon his own proceedings. The rule is enunciated for *our* benefit. He tells us, that "as a Journal of the medical Conservatives (we did not before know that an *editor* was a *journal*, but we presume that Mr. Brady has likewise his own *grammatical code*), it becomes your duty to contend for the principles advocated by your supporters!" Here, then, is the key to Mr. Brady's Report. We have only to remember his own code, and the additional fact which has been communicated to us, that he is the *assistant* (not the *allopathic* assistant, we hope?) only of a Homœopathic Practitioner. Here, then, the rule applies itself. As the "salaried" assistant of a Homœopathic Practitioner, "it becomes your duty to contend for the principles advocated by your Supporter," by the publication of a Statistical Report constructed according to the rule which has been approved by ample experience in similar cases. *We* are contented with the old fashioned—the "stereotyped-prejudice" kind of morality. We are foolish enough to profess to belong to the "Medical Conservatives," because we believe that they hold the truth, and to contend for their principles for no *more substantial* consideration than that we believe them to be true.

It is a part of the Homœopaths' tactics to complain that medical men do not make themselves acquainted with their system—pay no attention to their facts, and th t, therefore, they can be in no condition to judge of their truth. This complaint, like all that they write, is addressed to the public. They know well that we know *too much* of their system and their facts; they want a tribunal less acquainted with both, and less able to appreciate them. They have no desire that we should pay more attention to them, unless they can provoke us to abuse them, and so enable them to become counterfeit martyrs. This appeal to the public, rather than to the Profession, is common with them. Mr. Brady also is an adept in the practice. Witness the whole of his Cholera Report, and especially the self-complacent dialogue with Mr. Allatt—as well as his letter, which we have just published. The talk about interfering with "existing ideas and stereotyped prejudices,"—the character given of the whole body of members of the College of Surgeons—the twaddle about the success which attended homœopathic treatment naturally leading to anxiety on the part of the friends of many who were treated by Allopathic Practitioners, to consult them, (all which success, be it remembered, was marvellously exhibited by the treatment of—how many patients does the reader think?—*Four!*)—the beautiful alliterative allusion to the deaths "not unfrequently the result of former treatment with blisters, calomel, physic, phlebotomy, etc.;" the inane remarks about the agreement between Dr. Taylor's conclusions and those of the General Board of Health; the sentimental reference to their being "regarded, as usual, as unorthodox, and therefore, unworthy." (Try the effect of the following transposition, Mr. Brady,—"being unworthy, they therefore became unorthodox"); and the mock-eloquent peroration with which the letter winds up. All this is well enough adapted to its purpose; but nothing can be further from that purpose than the desire to draw the attention of *medical* men to their facts. And the men who do these things have the folly to talk about medical etiquette, and about our unprofessional treatment of them! As if, forsooth, men, after having themselves taken leave of all the decencies of professional life, expected still to be treated with the punctilious observances of a courtier, or even as if they were "worthy of gentlemanly or professional consideration."

Mr. Brady's Report and letter are prolific in material for comment; but we have said enough for the present. We conclude by repeating our former assertion, that the conduct we have exposed is not that of "men who are conscious that they are the repositories of new and important truths, and anxious, above all things, to benefit mankind by taking means to insure their reception." "Homœopathy," says Mr. Brady, "has much to contend with, and nowhere more than at Huddersfield." To this, no less than to the motto of this Article, taken from the same source, we can give our entire assent. Yea, Mr. Brady, it has even to contend with the truth; and you know the adage, "Magna est veritas et prevalebit." But if it had truth on its side, then would Homœopathy find an opponent, less formidable only than the truth itself, in the conduct of those who support it.

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ENGLISH PHYSICIANS IN FRANCE.

The delicate question of free-trade in medicine has been recently brought forward in France by Dr. Moffat. Dr. Moffat thinks that two neighbouring and friendly nations should make an interchange of doctors, just as they might of bread-stuffs or broad-cloths,—at all events, that an Englishman, possessed of a legal English qualification, should be permitted to practise medicine among his own countrymen in France, without any other formality than the exhibition of his British degree; the same privilege being granted in England to French medical men. Acting on this conviction, which has the merit of pushing "liberty and fraternity" to their utmost limits, Dr. Moffat, some six or seven months ago, demanded permission from the Minister of Public Instruction, to practise medicine among the English residents in Paris, having previously forwarded his Edinburgh diploma, and testimonials of a highly flattering kind. The Minister refused to exercise his prerogative in Dr. Moffat's favour, and referred him to the law which ordains, "that no one shall be permitted to practise medicine in France, unless he be an M.D. of one of the Medical Faculties, or *officier de santé*, for the department in which he resides." All other practitioners are considered illegal, and so strictly is the principle carried out, that even the "Sisters of Charity" are not permitted to distribute ordinary house remedies to the poor, nor will an apothecary sell a dose of rhubarb without the prescription of a physician.

Dr. Moffat, regarding the Minister's decision as unjust, has appealed to the Legislative Assembly, and for the last six months has been fighting what he considers the cause of the Profession, with the most undaunted and praiseworthy perseverance. He has, indeed,—and unfortunately for the success of his claim,—fallen somewhat into the predicament of the daughters of Danaus, because French Ministers now-a-days are "used up" almost as fast as the water flowed from the antique tub, and Dr. Moffat has to "cram" one set of Ministers after another, who succeed like waves on the sea-shore. It would have given us much pleasure had we been able to take the same view of this matter as Dr. Moffat; but on careful consideration of all its bearings, we cannot accuse the French Government either of injustice or illiberality.

A few reasons will suffice to place the question in its proper light; and it may be considered as an international or as a special one.

With respect to the former it may be observed, that free trade in medicine does not exist in any European country; nor do we think that it should exist. Even admitting, for argument sake, that doctors can be assimilated to industrial products, all fair interchange of goods implies reciprocity, and in the present case would imply identity of value; because we could not pretend that two English doctors are worth three French, or balance the exchange by throwing in a handful of *officiers de santé* to make up the difference. Reciprocity, then, is impossible to attain in the present state of affairs. It cannot exist until a complete medical reform shall have swept away the abuses that now disfigure our English system. How could it be expected, that the French would receive our fourteen or fifteen different qualifications (to say nothing of His Grace of Canterbury) as equivalent to their single one; or why should Dr. Moffat require that the French ought to allow him to practise among his countrymen in Paris, when he is not allowed to practice among his countrymen in London? Can we reasonably demand more favour from foreigners than we obtain at home? Besides, reciprocity is rendered impossible by the apprenticeship clause of the Apothecaries' Company, and, so long as that obnoxious clause forms part of the English law, it were useless to discuss the question in an international point of view.

So much for justice. Let us say a few words on liberality. We cannot perceive just grounds for accusing the French Government of illiberality in their treatment of foreign practitioners. A Government is bound to protect the health, as well as the lives and properties of foreigners residing within its jurisdiction. A severe law has been passed for the repression of illegal practice of medicine. The term "legal practitioner" is strictly defined. In the practice of medicine no distinction of races can be admitted, because true medicine is one and universal. The qualification of the practitioner and the law for his protection, as well as for the protection of society, must emanate from one and the same source; if not, we should have a law dealing with objects beyond its control, and embarrassed by terms of which it is not cognizant. Foreigners cannot reasonably demand more favour at the hands of the law than the natives of the country in which they reside; and all that a foreign practitioner in France can fairly require is, that he be comprehended in the term "legal," under equitable conditions. Are the conditions required in France fair and equitable? We believe so. Any foreigner possessed of a legal qualification is admitted for examination at the faculty of medicine, on exhibition of his diploma and payment of the usual fee. No unnecessary delay is occasioned—no obstacle thrown in his way. On the contrary, it is matter of notoriety that every indulgence is shown to the foreign candidate. In a few weeks and for the sum of 40*l*., he may become a Doctor in Medicine of the Faculty of Paris, with all the rights and privileges attached to the degree. Nay, more, if money be an object, he may take out the diploma of *officier de santé* for a few pounds, and practice medicine in the department of the Seine, (which includes Paris,) among his own countrymen and the French to boot, without let or hindrance. The foreigner, be it observed, is not required to attend a single lecture—to present a single certificate; but is at once admitted to examination; and this, we repeat, is fair, liberal conduct, when compared with that of our own Universities or Colleges in analogous cases.

The whole question, then, may be reduced to this—Are the French authorities justified in requiring an examination before a French tribunal from all those who demand the privilege of practising medicine in France under the law?

We think they are. Otherwise they would resemble the imprudent merchant, who endorses a bill of exchange without sufficient knowledge of the drawer.

Finally, we may observe, that as no workman can work without his tools, so no physician in a large city like London or Paris can follow his profession in a proper manner without perfect acquaintance with the Pharmacopœia. Now, the official weights and measures—the official formulæ—the names of remedies—their strength, etc., are totally different in England and in France. The tincture of opium, for example, of the French Pharmacopœia, is nearly twice as strong as that of the London formula. All the French tinctures of narcotic and poisonous plants are *saturated* tinctures, and infinitely stronger than ours; the French druggists are not expected to know Latin, and assuredly are not very deep read in English. Hence, although an English physician may be sure of meeting English patients in almost every corner of the habitable globe, he cannot be equally certain of meeting with English druggists, or with natives who can understand his 'dog-Latin;' and

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hence a peremptory reason for the necessity of some test, at least, that he has a moderate acquaintance with the Pharmacopœia of the country in which he proposes to practise.

It is undoubtedly desirable that the numerous English residents in the principal towns of Europe should be enabled to secure the attendance of English medical men—that is to say, of practitioners educated in England; but, when this desirable advantage can be attained for an outlay of a few pounds, and after an examination which, in truth, is merely nominal, we cannot admit that our *confrères*, desirous of practising in France, are treated either in an unjust or in an illiberal manner.

CONCLUSION OF THE ELECTION OF MEDICAL OFFICERS TO ST. MARY'S HOSPITAL.

Long looked-for, come at last! The election of three Assistant-Surgeons to St. Mary's Hospital completes the Medical Staff. The Physicians and Surgeons were chosen by a Committee appointed for the purpose, and but little open quarreling was engendered, by their election. Not so in the case of the Assistant-Physicians and Assistant-Surgeons. The machinery by which the junior officers have obtained their position was about the worst that could have been devised, either for the purpose of securing the best men, or for avoiding those personal altercations, so detrimental to the future well-being of a public Institution. The goddess of Discord herself could not have devised a scheme more congenial to her tastes.

After an unexampled period of suspense, when men had been sufficiently irritated by lengthened hopes "long drawn out;"—when, to every acquaintance and to every patient, the fact of Mr. So-and-So being a candidate for St. Mary's had become a household word, then the Committee undertook the invidious task of selecting, not the most fit of the candidates to be appointed, as a matter of course, but of declaring half a dozen Physicians, and half a dozen Surgeons, to stand far above their fellow-candidates, thus not only rejecting certain men, but inevitably rendering them for ever bitter enemies of the Institution; for the Committee have affirmed that these men are not worthy even of proceeding to the poll in a veritable election by the Governors at large. Unseemly contests have been the consequences. Bitter epistles have filled the journals, and still more bitter personal altercations have disgraced the committee-room of the hospital. Men have had their feelings excited, so as to lose all sense of the decency of language; while the Committee themselves have forfeited all grounds for esteem or confidence, by having submitted, like Pistol, to "eat their own leek." And why do we advert to scenes over which we, in common with every well-wisher to the Profession, would gladly draw a veil? Because we are most anxious that no other Institution should make so great a mistake in framing new rules for the appointment of its officers.

There is but one right method of electing physicians and surgeons to public charities, and that is, by the aid of a Committee composed of men at once competent to judge of the merits of the candidates, and of high enough standing, morally and professionally, to be above the suspicion of unworthy motives or of incompetency. Such men have a character to maintain; the dicta of such men silence brawling agitators; the opinion of such men must have been submitted to without, at least, the openly expressed wrath of even a Dr. Newton Heale.

The gentlemen elected as Assistant-Surgeons to St. Mary's Hospital are, Messrs. H. Walton, Smith, and Lane. Mr. Walton polled 184 votes; Mr. Smith, 142; and Mr. Lane, 128. The other candidates selected by the Committee to proceed to the poll were Messrs. Norman, Dampier, Brown, and Maclise. On *the whole*, we congratulate the Governors on the services of the staff which they have secured; yet we doubt if the result would have been the same had the election been made by a Committee such as we have sketched.

Mr. Walton deserves the position he has gained; his papers, published in our own journal, have proved him worthy of a place among the accomplished surgeons of the day. Mr. Smith is also a well-known and able surgeon. But we scarcely think that Messrs. Maclise and Norman occupy the position on the poll their reputation and merits entitled them to expect.

THE GREAT EXHIBITION.

OBJECTS CONNECTED WITH THE THEORY AND PRACTICE OF MEDICINE AND SURGERY.

[THIRD NOTICE.]

We were compelled to conclude our last notice on the medicinal substances contained in the Exhibition before completing our account of the drugs or raw material. In addition to the objects we have already noticed, Mr. Bell exhibits English Rhubarb, dressed to resemble the foreign root, also the same substance in powder, in which condition it bears a close resemblance in colour to the powder of the East Indian rhubarb. The English rhubarb is the root of Rheum Rhaponticum, which, according to the statement of Dr. Royle, is cultivated at Banbury to the extent of twenty tons annually; it is much inferior to the Turkey and East Indian drug, and is employed for the purpose of adulterating the latter. On the table are bottles, one of skin, containing Balsam of Peru in the state it is imported. A good specimen of the petals of Rosa gallica completes Mr. Bell's contribution of drugs.

Messrs. Savory and Moore exhibit specimens of kousso and sumbul, with a beautiful series of salts of valerianic acid, of which we shall speak in their proper place. The kousso and sumbul are two new remedial agents of considerable importance, of which we shall now give a description. Kousso, the recently introduced anthelmintic, employed very successfully for the expulsion of tape-worm, consists of the flowers of an Abyssinian tree, belonging to the natural order Rosaceæ and sub-order Spiræacæ. From the elaborate account of this substance, given by Dr. Pereira in a recent number of the *Pharmaceutical Journal*, we learn that this remedy, which is extensively employed by the Abyssinians as a vermifuge, was first noticed by Bruce in his account of his travels, and has been subsequently described by other travellers; but that, until within the last few years, the drug itself has not been introduced into European practice. The plant which yields the kousso has received the name of Brayera anthelmintica, after Dr. Brayer, who first introduced the remedy to Europe. The Brayera is an Abyssinian tree about twenty feet high, with round hairy branches of a rusty colour, and marked with transverse rings left by the fallen leaves. The leaves are crowded at the extremities of the branches, alternate, impari-pinnate, and sheathing at the base. The leaflets are oblong or elliptical, lanceolate, acute, serrate, and downy at the margin and on the veins of the under surface. The flowers are dicœcious, small, greenish afterwards becoming purple; the peduncles are repeatedly dichotomous, and the pedicils have an ovate bract at their base. Two bracteæ are placed immediately below the calyx, which has ten lobes in two series, the outer of which are much larger than the inner. The petals are five, inserted into the throat of the calyx, small and linear. Stamens fifteen to twenty, inserted with the petals. The carpella, two in number, are placed at the bottom of the calyx; they are one-celled, and contain one or two pendulous ovules. The styles are terminal, thickened upwards with sub-peltate stigmata. The kousso has been subjected to chemical analysis by Wittstein and Martin. The results of these analyses differ from each other. That of Wittstein gives as its constituents, fatty oil, chlorophyle, wax, a bitter acrid resin, another tasteless resin, sugar, gum, tannin of two kinds, one which strikes a green colour with proto-salts of iron, the other giving a blue colour with the same

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salts, vegetable fibre, and ashes. Martin found starch, sugar, vegetable extractive, a green odorous resin, and a peculiar crystalizable substance, to which he gave the name of kwoseine. The kwoseine he describes as forming acicular crystals of a silky appearance. It has a styptic taste, is soluble in alcohol and ether, reddens litmus, and dissolves without decomposition in concentrated sulphuric, nitric, and hydrochloric acids. Kousso has been employed to some extent in our hospitals, especially King's College Hospital; but the small supply hitherto obtained has rendered it so expensive as to preclude its general use. Thanks, however, to the public spirit and liberality of Messrs. Savory and Moore, who supplied a quantity for trial to the public institutions, its anthelmintic properties have been fully established, and a valuable addition has been made to this hitherto uncertain class of remedial agents. The same good feeling of this firm has impelled them to use every endeavour to obtain larger and more regular supplies of the drug, which has already considerably reduced its cost, and rendered it available in many cases in which it could not have been employed in consequence of its high price. Although it has proved successful in destroying the tapeworms inhabiting the intestine, it remains to be proved whether it will prevent a recurrence of the disease.

The other remedy, Sumbul, to which we shall next draw the attention of our readers, is also a novel agent in medicine, whose powers are still under investigation. This substance, the root of an unknown species of plant, was first brought into notice by Dr. Granville, who, in a visit to St. Petersburg during the recent epidemic of that disease, found it in general use in that capital as a remedy for cholera. Messrs. Savory and Moore have the merit of introducing it into England, where it had been previously unknown; and these gentlemen have, with their characteristic liberality and public spirit, distributed it, as they did the kousso, to the public institutions for trial, although they themselves, even now, possess a limited supply. We have personally to thank them for a fine specimen of the root. Even the locality from which the sumbul or musk root is obtained is a matter of uncertainty. Erman and Von Lebedour, two German botanists, refer its origin to Bucharia, while others look upon it as the produce of Trebezond, and others, again, refer it to Persia. Dr. Granville is of opinion that it is the root of an umbelliferous plant, either aquatic or growing in humid situations. The specimens now before us are transverse sections of a large root, which, in its dry condition, is about four inches in diameter, and another portion, which shows the root bifurcating below. It is covered by a light brown epidermis, in some places smooth, in others rough, with transverse furrows, and of moderate thickness. Within this are coarse perpendicular flat bundles of woody fibre, of a yellowish colour, connected by cellular tissue; and similar bundles extend in a radiating direction towards the centre, surrounded and connected by a white delicate cellular tissue, containing starch granules. The root has a strong perfume, closely resembling that of musk; whence its name, Sumbul in Asia, and moschus-wurzel in Germany. The odour is very persistent, adhering to paper or other substance with which the root has been in contact. The taste is at first mucilaginous, then becomes slightly acrid, and finally bitter, accompanied by the peculiar aroma. It has been analysed by Reinsch, who gives, as its constituents, traces of volatile oil; two resins, one soluble in ether, the other in alcohol; wax; and a bitter substance, soluble in water and alcohol; besides woody fibre and ashes. The balsamic or resinous substance exists in considerable quantity, amounting to an ounce and a half from seventeen ounces of the root, and he has extracted a crystalizable acid, to which he has given the name of sumbulic acid. Alcohol and ether extract the active principles of this root. The alcoholic solution is of a yellowish colour, smells strongly of musk, and is rendered turbid by admixture with water. The etherial tincture is also yellow, with the characteristic odour. A mixture of the alchoholic and etherial tincture is not rendered turbid when mixed with water. The aqueous extract has neither the odour nor flavour of musk. Having placed this rather lengthy description of the drug and its pharmaceutical properties before our readers, we must say a few words on its therapeutical applications; and here Dr. Granville, who appears to have experimented most largely in its use, is our chief authority. He recommends it, in what are generally comprehended under the title nervous disorders, as a diffusible stimulant, and excitant of the nervous system, especially in the numerous varieties of hysteria, in chlorosis, amenorrhœa, and dysmenorrhœa; in spasms of the stomach and cramp; in some forms of paralysis, and, as originally suggested by Mr. Savory, in epilepsy. In each of these forms of disease it has been employed with manifest advantage. Lastly, it was given largely as a diffusible stimulant in Asiatic cholera at St. Petersburg; but we cannot speak so enthusiastically on the results as Dr. Granville, because we believe that the treatment in England was fully as successful as that in Russia, where he states that one-third fell victims to the pestilence. Our own experience in England, and it was by no means small, gives about the same ratio of deaths to recoveries in cases which had fallen into collapse before assistance was obtained.

M'Culloch and Co. exhibit a collection of English and American dried herbs, all of them in good condition, but many which are now ranked as old wives' remedies. The only specimens of interest are the bark of Pinus Canadense and of Myrica cerifera, the Lobelia inflata, Erythræa Centaureum, Pyrola umbellata, and pomegranate flowers, commercially known as Fl. Balaustæ.

Mr. Keating has a small case containing select specimens of sarsaparilla from Paraguay, of a deep red colour; some fine leaves of Matico or Piper angustifolium from Bolivia; jalap-root, kousso, and saffron. On the same table is a huge skin of Matico, sent by Mr. Keating, introduced within the last few years as a powerful styptic in cases of wounds and internal hæmorrhage.

Mr. Morson exhibits among the drugs, bottles containing the summits of Indian hemp, (Cannabis indica,) and the St. Ignatius bean, the seeds of Strychnos St. Ignatia; Chinese galls, and the seeds of Veratrum Sabadilla.

Specimens of cod-liver oil are exhibited by Mr. Bell in its usual condition, and the oleine and stearine separated. The oleine is beautifully clear, of a lemon yellow; the stearine is hard, and of a dirty white colour. Of the merits of the separated oleine as a remedial agent we are unable to speak; but, looking upon the beneficial effects of the oil as chiefly resulting from the introduction of fatty matter into the system in a form which is easily digested, we should hardly think that the removal of the stearine would be an improvement. Specimens of cod-liver oil and its oleine are also exhibited by Mr. Watts, (No. 88); and the oil without separation of the stearine, clear, and of a fine lemon-yellow colour, by Mr. Squire.

A small case contains the fruit and bark of the root of the Indian Bael tree and wine prepared from it; but as the botanical name of the tree is not given, and no reference to the common name is contained in the works we have at hand, it is impossible to make any remarks on its properties. The same case contains soap berries, the fruit of the Sapindus Emarginata (?), which are considered as an expectorant by the natives of India, and are also used as a substitute for soap; and the fruit of the Ziziphus Vulgaris, or jujube.

A chemist, G. J. de Nobrega, of Funchal, Madeira, sends a bottle, labelled tea, containing apparently the leaves of Thea Bohea.

[To be continued.]

REVIEWS.

Essays and Notes on the Physiology and Diseases of Women, and on Practical Midwifery. By JOHN ROBERTON, formerly Senior Surgeon to the Manchester and Salford Lying-in Hospital, &c. 8vo. Pp. 530. London.

Like the volume bearing the name of the late lamented Dr. John Reid, this book consists of a number of essays on subjects not always very closely allied, but perhaps all the more agreeable for not being a systematic treatise.

The first Essay is, in every way, the most important and most interesting. It contains a satisfactory refutation of a long-established popular opinion, and, even were the other essays omitted, would be alone sufficient to entitle its author to the highest praise. The subject is, the period of female puberty in different climates; and the object in view to show, that the belief that puberty is influenced by the warmth of climate is opposed to fact. It can only be from statistical data that this can be shown to be the case; and when the difficulty of collecting evidence that is trustworthy is borne in mind, the task Mr. Roberton imposed on himself will be admitted to be of no ordinary kind. When we add, that this

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task has been satisfactorily accomplished, we say no more than Mr. Roberton deserves.

The Essay commences with a view of the social condition of women not European, including, of course, in the term, those of European descent. The Esquimaux and Hindoos serve as illustrations, and their customs will be found to correspond in many particulars; thus, both refuse to eat with their women; plurality of wives, early marriage, and early sexual intercourse is common to both. Prostitution is common among the widows of the Esquimaux; while the Hindoo widows are prevented marrying a second time, and thus, being compelled to pass many years in hopeless celibacy, are not placed in a situation very favourable to the preservation of chastity. The Esquimaux, being a naturally amiable race, differ from the people of Asia, the North American Indians, and South Sea Islanders, in not subjecting their women to the same amount of toil. The Hindoos have a strong prejudice against educating their women.(a) All these customs are opposed to what ought to prevail; and it is only in a Christian community that we may hope to see woman occupying her proper place.

"Her day is not to close when the offices of mother and nurse have been fulfilled; but rather that now, when ripe in knowledge and experience, it remains for her to train those to whom she has given birth 'in the way they s ould go;' herself, meanwhile, continuing to shed on domestic society that benign, humanising influence which her moral constitution, when purified and elevated by the Christian religion, is so eminently fitted to exercise. We regret to say, that, even in our own land, woman is not always allowed to occupy such a position. It is related of a King of England, one of the early Georges, who, when besought by his Queen to spare the life of a criminal, said, 'Madam, I married you to bear children; and not to interfere in what does not concernyo .!'"

There are different causes which have operated to give rise to the belief, that puberty takes place very much earlier in warm climates. The most likely appears to be, the licentiousness so generally observed among the Hindoos and other uncivilised races; this, with their early marriages, would naturally give rise to the supposition of early puberty; and the early age at which they bear children, followed as it is by the early disappearance of female beauty, would strengthen this opinion. Though Haller and other eminent writers have given their adherence to the common belief, it is chiefly to the opinion of the celebrated Montesquieu, expressed in his writings, that the prevalence of that idea is mainly to be attributed. More is involved in its true solution than may at first sight appear; for, if it is shown that climate operates in the degree that it is represented to do, then those races so influenced become morally inferior to others placed in more favourable circumstances.

"For," says Tiedemann, "were the prevailing opinion that the negro race is by nature inferior to the European correct, the former would deserve to occupy a very different station in society to that assigned it by an act of the British Legislature."

Reasoning by analogy, Mr. Roberton applies the same line of argument to his subject; for, if women in tropical climates arrive at puberty, as has been represented, in their eighth, ninth, and tenth years—

"The inference is too obvious to be overlooked; for, only grant that the Creator has fitted tropical women for the duties of mothers at an age so considerably earlier than in Europe, (unless he has also given them capacities for knowledge, so apt as to attain, in the three or four years which succeed infancy, what the European only learns in twice that time,—a notion no one has maintained,) then their inferiority is determined; and it will be in vain, by means of the missionary, of education, or of enlightened legislation, to attempt the reversal of a law based on a physiological difference."

We are scarcely prepared to go as far as Mr. Roberton does in denying the influence of climate on animal and vegetable life; but we are quite prepared to admit, with him, that much has been attributed to the effect of climate that is fairly referrible to other causes. Thus, the enervating effect of climate is often spoken of; but races inured to, are not thus influenced by it. If physical force were all we had to look for to mark an equality, we might exclaim, with Syphax, comparing the Roman with the Numidian people:—

"'Gods! where's the worth that sets these people up
Above thine own Numidia's tawny sons?
Do they with tougher sinews bend the bow,
Or flies the javelin swifter to its mark,
Launch'd from the vigour of a Roman arm?"

(a) We are happy to say, that, under the wise rule of Lord Dalhousie, efforts are being made to overcome this.

If it is asserted, that stature is influenced by temperature, it is denied by the fact that the Esquimaux are taller than some of the inter-tropical nations; the tall Swede and dwarfish Laplander "are found in the same latitude." To scarcity of food this difference may in a great degree be owing. Travellers are too apt to form hasty conclusions without making sufficient inquiry, and often taking for granted what they hear, when a little pains would make them conclude differently. To obtain accurate information, Mr. Roberton has in a great measure rejected the statements of mere travellers, but has communicated directly with medical men or missionaries residing at the places from whence he wished to draw his information; and having pointed out to them the importance of obtaining evidence that could safely be relied on, has, after much trouble, and in some cases considerable delay, collected a great number of facts, sufficient, indeed, to justify the conclusions at which he has arrived. His own observations are in accordance with that of other observers, that the age at which menstruation commences is not uniform, showing itself in some few cases at 10 years of age, but in the greatest number at 15, and in some cases not appearing till the age of 20. It is, however, by comparing the ages at which puberty is established amongst the Northern races with those in tropical regions, that it is shown that climate does not influence the period of its appearing, or the length of time during which the menses continue to recur. We shall now mention some of the most interesting facts collected by Mr. Roberton, and then state the conclusions he has drawn from them, more especially in reference to the Hindoos, who, it will appear, show the signs of puberty earlier than the other dark races, but which may be accounted for by their social habits. Speaking of the Northern Indians, Hearne says—

"The girls among the Northern Indians, after the first menstruation, wear a small veil for some time, as they are now considered marriageable, though some at the time are not more than 13; while others, at the age of 15 or 16, are reckoned children, though apparently full grown."

Through the agency of the Rev. John Lundberg, of the Moravian Missions in Labrador, the age at which sixteen Esquimaux women menstruated was obtained. Comparing these with cases collected in England, taking the first sixteen in three registers collected by Mr. Clough, Mr. Gee, and Mr. Robertson, the following result appears:—The mean age, in Labrador, is 15¼ years; in England, 16$\frac{1}{16}$ years, 15$\frac{3}{4}$ years, and 14$\frac{7}{8}$ years. The earliest age at which an Esquimaux woman was known to bear a child was 15$\frac{3}{4}$ years. The number of cases is small, as none were selected but those whose age was known. In Mr. Lundberg's letter the following passage occurs:—

"We observe, with regret, that the now more frequent use of European provisions, as bread, flour, peas, etc., acts injuriously on the solid bodily constitution of the Esquimaux. They become weaker, and are attacked with several diseases which were formerly quite unknown in Labrador; hence, also, parturition is more frequently difficult."

Menstruation appears to cease about the same age as in England. These facts are of much value, as we see that the idea of climate retarding the appearance of menstruation is not correct; though, owing to the hardships the Esquimaux must necessarily undergo, it would not create surprise if puberty were found to be delayed. The amorous propensities of the Esquimaux does not appear to be in any way affected by the coldness of the climate. If we were to believe travellers, the Samoides, who are found along the frozen sea in the Russian empire, are mature at a very early age, many being mothers in their eleventh and twelfth year; but their marriages are rarely prolific, as they cease bearing before thirty. Eastward from the Samoides, we find the Tschuktschi and Koriacks. Humboldt says of these, their females are often mothers at the age of ten. Loose statements such as these may well be rejected, as well in the case of northern as of tropical races; and it is a matter for surprise how so accurate an observer as Humboldt could have adopted such a palpable error.

Turning to Southern Europe, we find Mr. Strong, a most respectable authority, maintaining the popular belief of puberty being materially influenced by climate. And, as his residence in Greece entitled his opinion to consideration, Mr. Roberton took especial pains to ascertain the real state of the case. Three physicians have given fourteen as the average age of puberty in Greece, which is very much later

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than Mr. Strong would lead us to believe it to be. One of these gentlemen, Dr. Zaviziano, speaks of a very remarkable case he had known at nine years; but in England a similar case might be found, though in all such there is much reason for doubt. In the other cases furnished by Dr. Zaviziano, eleven is the earliest age; out of thirty-five cases, there are three cases as late as eighteen. According to these gentlemen, menstruation ceases between forty and fifty-two. The common age of marriage is from fourteen to twenty. Dr. Dyster, of Madeira, gives the result of his inquiries in the island, taken from 228 cases. Puberty occurred in two of these at eleven, but the mean age is fifteen years and five months. In opposition to a belief, that menstruation is profuse in southern climates, this gentleman observes :—

"There is a point which I think somewhat singular, considering the simple habits of the people, and the glorious climate, namely, the exceedingly frequent derangement of the uterine function. Menstruation is rarely profuse; very commonly deficient both in quantity and duration. Anæmia is in general at the root of the evil, and aloes and iron the most efficacious remedies."

Now, when it is recollected that Madeira has a higher temperature throughout the year than any part of Europe, some other cause besides climate must be looked for as the true one to account for the earlier appearance of the menses (where they are earlier, as with the Hindoos.) Writing from the West Indies, Mr. Elliot says :—

"My own opinion was, that the females, of whatever race, arrive sooner at puberty in a tropical climate than in colder regions; but I only followed the opinion of others in this, and they, probably, based theirs on analogy between the animal and vegetable world. Experience proves that there is no such analogy."

Taking the age at which sixty-four negresses menstruated, as collected by Mr. Bowen, we find the mean age to be fifteen years and seven months. This is a very important step in the inquiry, as it shows that intense heat is not sufficient to account for early puberty where it is observed. The evidence from Polynesia is not satisfactory, but is probably enough to entitle Mr. Roberton to say :—

"We may fairly conclude that, although sexual intercourse and marriage are so much earlier in Polynesia than in Europe, the period of puberty is really not earlier."

Among the Arab women, Mr. Madder says, "the period of puberty is 14; that of marriage, from 11 to 15 years."

Dr. Allan Webb, Professor of Military Surgery in the College of Medicine, Calcutta, forwards two tables prepared by the Baboo Modusooduu Gupta, and Dwarikanauth das Bosu, which, with other cases from Calcutta, fix the mean age of puberty at 12 years and 6 months. This is much earlier than among ourselves, the inhabitants of southern Europe, the Esquimaux, or Negro; and is earlier than in Bombay, where, judging from 230 cases, the mean age appears to be 13 years, 5 months, and 24 days. In Madras, 71 cases give the mean age at 13 years and 2 months; 57 cases from Toomkoor, give the age of 13 years and 11 months. There is so much that is curious in the social customs and manners of the Indians, that we may probably find there some explanation of the early appearance of puberty. To some of these we must now direct attention :—

"They have a custom in India (very disgusting to an English mind) of marking this event," the appearance of the menses 'in a girl's history, in the most public manner. The poorer classes wear flowers in the hair at the back of the head; the richer give a feast on the occasion; and, if the girl has been betrothed, she then goes to live at the bridegroom's house, and the marriage is consummated. In general, all young persons are then considered marriageable, and are married as soon after as possible."

In one case, where a marriage could not take place, as the girl had not menstruated, the father attributed its absence to poverty of living. The girl was supposed to be about fifteen.

In lower Bengal it is the custom to send the girl, at nine years of age, to the house of her husband, as, should consummation not take place before the first appearance of the menses, she is degraded in rank. It may happen in some cases, that injury from intercourse at this early age may have given rise to a supposition that the catamenia had appeared. It is in accordance with a law of the Shasters that this custom is observed; females are consequently given in marriage before the occurrence of menstruation, as their appearance before consummation is considered a sin. Some of the intelligent Hindoos regard these early marriages as the monster evil of their country. At Bangalore, sixteen days after the appearance of puberty are allowed to elapse before the wife goes to the house of her husband. The mothers, on an average, are probably more than eight years younger at the birth of their first child than in this country. Compare them with the labouring classes in England.

"The difference that exists between the European and the Hindoo must be sought in race. When it is recollected, that the consummation of marriage has taken place, at the latest, on the arrival of puberty, during the lapse of more than 3000 years, and that the practice is sanctioned by ancient laws and consecrated by custom, it is easy to conceive, that those females who were the latest in reaching puberty would be the least sought after for wives; that such women would not unlikely, in many instances, remain unmarried; and that thus, owing to the origination of a preference on this ground in the selection of wives, operating through a long period of time, Hindoo women would gradually come to consist, in a proportion different from that in Europe or elsewhere, of such as by constitution are early nubile."

These very early marriages, which Mr. Roberton considers the principal circumstance that has led Europeans into error as to the early appearance of puberty, he speaks of as

"A trait of manners to be attributed, not to precocity, but, as has already been said, to moral and political degradation, and impure or debasing systems of religion."

In connexion with this subject it is curious to observe what has or does still prevail in different countries.

In Spain, marriages of policy or convenience take place at an early age. To this cause the absence of conjugal fidelity is attributed by different travellers who have published their opinions. Frederick von Raumer speaks of the universally early marriages of the Sicilians as a proof of their degraded state. In Greece, from 12 to 16 is a common age for marriage, the parents making up the matches. The early marriages in Russia attracted the attention of Peter the Great, who, by an imperial ukase, prohibited his nobles from entering the married state before the age of 20 for the bridegroom, and 17 for the bride. By the present law of Russia, priests are forbidden to solemnize marriage unless the bridegroom is 18 and the bride 16. Sir Dudley North, who flourished in the reign of Charles II., says, speaking of the Russians :—

"In this country, the husband is the sole commander of the wife, who differs very little from his servant. Many will marry their sons very young to lusty baggages, on purpose to gain able servants."

From these premises, Mr. Roberton very justly argues, that early pubescence, the effect of a warm climate, cannot necessarily be regarded as among the causes of early marriage. From a Table published by the Registrar-General for the year ending 1839, it appears, judging from 4858 marriages, that the average age of marriage is, for the men 27 years, and for the women 25 years and a few months. At a former period of our history, early marriages were much more prevalent; under the feudal system, the rights of wardship and marriage led very much to it. The right of wardship or guardianship possessed by the feudal lord was considered pretty much in the light of ordinary property; and, as the lord had an interest in the marriage of his ward, he usually arranged the business by making a marriage in his own family, if convenient, or selling the marriage. As the ward, if a female, acquired certain privileges at the age of 16, her hand was usually disposed of before that time. There are many examples of wardships being bought. Thus, William, Bishop of Ely, gave 220 marks, that he might have the custody of Stephen de Beauchamp, and might marry him to whom he pleased.

"It would seem that the dread of wardship and marriage sometimes operated with parents in marrying their child at a tender age, with a view to evade this oppressive law. Thus, Maurice, fourth Lord Berkeley, was knighted at seven, and was married at eight years old, to Elizabeth, daughter of Hugh, Lord Spencer, then but eight years old, the reason being that early marriage prevented wardship, the payment of a large fine to the king, and assisted the party's own affairs with interest and powerful connexions."

Many cases are given in proof of the early age at which some of our ancestors entered the married state. Miss Strickland, in her "Lives of the Queens of England," gives the following :—

"Margaret, wife of Edmund Tudor, was left a widow and mother at the age of fourteen."

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The early marriages of the Irish are proverbial. Dr. Griffin, of Limerick, mentions four cases of women marrying at the age of 13. We very much question if many cases at so early an age could be obtained, though we have no doubt numerous instances of women marrying at 17 or 18 could. When we recollect that the Irishwomen are proverbially virtuous, we must not altogether condemn their desire to exchange the maiden for the married life. We regret to say that in many counties, among the lower orders of the English, it often happens that women are to be found in what is usually called "a happy state," prior to marriage, which is generally spoken of as a misfortune or an accident. Such an event in Ireland, to the credit of the people be it spoken, is visited by loss of caste, and a woman never after regains the position she has justly forfeited.

Mr. Roberton expresses a doubt as to the correctness of the common opinion that the menses ought when regular to occur monthly.

"Of 100 women there were 61 in whom the catamenia recurred monthly, 28 in whom they recurred after an interval of three weeks, 10 in whom they recurred after intervals of varying and uncertain duration, and 1, a healthy woman of twenty-three years of age, in whom they recurred regularly every fortnight."

We still hold our opinion that the rule is—monthly, and think that a larger number of cases would strengthen that opinion, though we are quite aware that a number of cases do occur, such as those mentioned, where there is no apparent deviation from health in other respects. A Table is given of the ages at which 77 women ceased to menstruate; the greater number are from 45 to 50, but there are three remarkable cases, two at 60, and one at 70; this last, it is stated in a note, ceased menstruating for twelve months about her 50th year, and again became regular. With a view to ascertain the law that determines the intervals of conception in the human female, inquiries were made by Dr. Laycock, of York, and Mr. Roberton; the latter observes:—

"The first corollary which I would draw from the facts collected in Manchester and York, is, that in seven out of eight women who suckle for as long a period as the working classes in this country are in the habit of doing, there will elapse an interval of from twelve to fifteen months from parturition to the commencement of a subsequent pregnancy.

"2nd. That in a majority of instances, when suckling is prolonged to even nineteen or twenty months, pregnancy does not take place till after weaning.

"3rd. That lactation having this influence on the generative function, we are warranted in regarding the secretion of milk as the cause which regulates the period of conception in mankind, as instinct operates to the same end in granivorous quadrupeds, and probably in all other animals."

Mr. Roberton thinks that the natural period for a mother to suckle her offspring is eighteen or twenty months, but that of course, in the present state of society, it is not desirable that the period should be longer than half that time. This will be found to agree pretty closely with the opinions of individual medical men, as it generally happens that attempts to continue nursing much longer than that time will be found to prove injurious either to the mother or child. Among uncivilised nations, mothers often nurse for two or three years; some of the North American Indians for a much longer time.

The essay on Hysteria is, perhaps, as good as any we possess on the subject, and is well worth reading. The title, "Hysteric Constitution," conveys very clearly the author's view of the nature of a disease which, like scrofula, may manifest itself in any part of the body. This essay concludes the first part of the book; the remaining part consists chiefly of essays relating to practical midwifery.

The first of these is "the bony pelvis considered obstetrically." The manner in which the subject is managed reminds of some of the Bridgewater Treatises, many of the facts enumerated illustrating design in the works of Creation; for though we do not find animals altogether exempt from some of those dangers incidental to parturition, we still find provision made for the circumstances in which they are placed; so that wherever we look we find the same wisdom displayed throughout the whole range of God's works.

"Several mammalia, as the cetaceæ, have no pelvis; numbers of the ovipari, as the tortoise and the crocodile, among quadrupeds, and the ostrich among birds, have this part of the skeleton perfectly formed. And, lastly, several species of quadruped mammalia either have an imperfect pelvis, open in front, as the anteater; or so small (as the mole, the shrew, and the seal), that the vagina passes in front of the pelvis."

In opposition to Blumenbach and Carus, who speak of the ostrich as the only bird whose pelvis is completely closed by a junction of the ossa pubis, Mr. Roberton states that, in the museum of the late Mr. Tawdington, there is a skeleton of the brown eagle, (falco fulvus,) having the ossa pubis closed, as in the ostrich. The fœtuses of the guinea-pig, being very large in proportion to the size of the mother, a remarkable provision of Nature prevents difficulty occurring at their birth; relaxation of the symphysis pubis, as first pointed out by Le Gallois, takes place so as to admit of the separation of the bones to the extent of an inch, "affording a beautiful illustration of the sentiment that the tender mercies of the Deity 'are over all his works.'" The process of parturition, as observed in a bitch, is given; but this, with many other matters of interest, our want of space compels us to pass over.

From the essay on the use of the forceps, we extract the following practical remarks:—

"One woman will be in labour without injury to the fœtus, the membranes being entire, and the uterus slowly dilating, for it may be fifty or sixty hours; while another, in whom, in the course of the first two hours, the uterus has opened, the waters escaped, and the head descended into the pelvis, will have a dead child, if delivery be delayed for perhaps six, eight, or ten hours; nay, I have known the forceps required within six hours from the escape of the waters. It is ever to be remembered, that the life of the child may be earlier in danger than the life or organs of the mother; that many a fœtus is killed by too long continued uterine action when the state of the mother is giving no cause for anxiety. I conclude, therefore, that the preservation of the child, when that is obviously endangered, is of itself a reason for hastening delivery by the forceps."

Like many others, Mr. Roberton has had a forceps made to suit his own fancy. Without for a moment undervaluing a good instrument, we are sure that far more depends on the operator than on his tools; the best made becomes a murderous agent in the hands of some men. Mr. Roberton once had occasion to call in the aid of a surgeon, who is spoken of as dexterous with the lever:—

"This gentleman fixed the lever upon the head, making the woman his fulcrum. His efforts, however, were long unavailing; at length, with one foot on the floor, and the other on the couch, exerting all his strength, and fairly lifting the breach of the patient off the bed, he delivered a still born child. On examining immediately after, I found the ramus of the os pubis of the right side denuded, the bone perfectly bare, as the effect of friction in using the lever; sloughing of the vagina followed, but the bladder escaped."

It appears to us, that the woman had altogether a wonderful escape. Injuries of this nature, or perhaps less severe, led Mr. Roberton to have the forceps made to which we have alluded. Perhaps few deserve more credit than the late Dr. Beatty, of Dublin, for a well-timed pamphlet on the forceps, which replaced that instrument in a place it had lost, and was the means of saving many lives that would otherwise have been destroyed by the perforator.

Laceration of the uterus occurs sufficiently often to make any information about it acceptable. Thirty-seven cases are collected; from them we ascertain that, in the majority, this accident occurs in a period under thirteen hours. Two cases caused by projections of bone springing from the inner surface of the ossa pubis are enumerated. Mr. Roberton says:—

"I believe that a crampy pain and tenderness on pressure in some particular part of the lower abdomen precede, for a time, laceration of the uterus occurring under the circumstances I am now supposing, *i. e.*, from deformity or tightness of the inlet."

A case is given, to explain in some degree the cause of the crampy pain:—

"From two till four o'clock I watched my patient with great anxiety, owing to an almost intolerable crampy pain in the abdomen, a little to the right of the pubis. This pain, never quite absent, was increased on every occurrence of the labour pains. Finding the anterior lip of the womb tumid and considerably lower than the head, I began, in the intervals of the pains, to raise it assiduously with the middle finger of the left hand. After some time, I succeeded in raising the anterior portion of the cervix above the brim, when the crampy pain gradually ceased to be complained of; and, the labour pains becoming more efficient, the head was

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fairly lodged in the cavity of the pelvis by six o'clock. In this case, the brim, although I believe well formed, was small, and the fœtal head large; the child was a large male. The symptoms, in my opinion, threatened laceration of the uterus, until they were allayed by my removing the cervix from the vice-like grip in which it was held between the cervix and the brim."

The operation of turning is described, but need not detain us. Prolapsus of the funis is thus accounted for:—

"The funis is a heavy rope, specifically heavier than the liquor amnii; and when the waters escape, the funis, if nothing prevent—if the presenting part of the child do not occupy the inlet of the pelvis—floats into the vagina with the current. If the patient is standing or sitting when the membranes rupture, this will increase the chance of the accident."

The danger arising from hæmorrhage following the birth of the child is forcibly pointed out, and the management required to procure the expulsion of the placenta dwelt on at some length. A rule of practice is laid down that we cannot pass over without condemning:—

"When the child's head is passing the os externum, its exit ought to be retarded, or rather regulated by the hand. When the head is suffered to be suddenly projected into the world, it draws the body after it too quickly to allow the uterus time for accommodating itself to the altered bulk of its contents; and thus the ensuing stage, namely the birth of the shoulders, is apt to be rendered tardy, from the uterus taking on a spasmodic instead of a regular contraction."

Now we cannot conceive that nature having directed the head during its passage through the pelvis, and by a beautiful provision allowed the bones to overlap one another, so as to mould themselves to the unyielding space through which they must pass, can now require our aid. Teachers of midwifery direct a moderate amount of support to be applied to the perinæum, so that if there is likely to be a laceration of it, the accident may be prevented or rendered partial. Now, in ordinary cases, it is the duty of the accoucheur to watch and leave all to nature, avoiding all interference, even the midwife's "little help," dragging the child into the world when only the head and shoulders are expelled, so that if the perinæum is guarded, we believe that in ninety-nine cases out of a hundred nothing further need be done, so far as the birth of the child is concerned, unless it be to see, that if the cord is round the child's neck, it does not retard the birth or cause asphyxia. Some teachers say the cord may be drawn over the child's head; this, we believe, is very difficult to accomplish, though it may be slipped over the shoulders at times. To secure uterine contraction, pressure with the hand over the fundus is recommended, though not to the extent we could wish. When the child is being expelled, we would recommend the medical attendant to place his left hand over the uterus, and follow it down after the expulsion of the child; by this means, supposing there are not twins, which will be immediately recognised, the uterus may be commanded, and its contraction maintained. Grasping the uterus firmly with the left hand, and when tired relieving it with the right, will far more effectually secure the expulsion of the placenta than ineffectual and often mischievous attempts to withdraw it by pulling at the cord. Should there be any tendency to hæmorrhage, it cannot make any great head without being detected; and, when recognised, the proper remedy to begin with, firm grasping of the uterus, is applied. Supposing all to go well up to the removal of the placenta, and that there is no appearance of hæmorhage, we believe the application of the binder, not tied loosely round, outside the shift, but drawn as tight as possible, secured with strong pins, and, if necessary, a folded napkin placed over the uterus, so as to increase the pressure, will be the most effectual safeguard against hæmorrhage, and we know will always prove a great comfort to the patient from the support it gives. Our Irish brethren are well aware of the value of the binder thus applied. Want of space compels us to omit some parts that we would have gladly noticed; there is, however, a supplementary chapter on Hindu Midwifery from which we may make a few extracts. The native physician, Modusooduu Gupta, supplies the following:—

"Native women suffer much pain in parturition, chiefly from the youth of the mother; but it is very rarely attended with danger to the life of the latter, unless there be some accident, as a premature or cross-birth, or unless fever ensues after the birth. Unhappily, fever, in such circumstances, is of frequent occurrence, for, in two, three, four, or five days, the woman is generally seized with its the symptoms being pain in the belly, sweating, headache, and giddiness, and inflammatory fever. Without proper treatment the issue is often fatal. In cases of this nature, I am frequently called; and, in my opinion, the disease could generally be prevented, if the women were attended from the beginning by midwives of proper skill. Those who do attend are perfectly ignorant of their profession. It is but fair, however, to say, that though the danger of a seizure of fever is partly to be ascribed to their ignorance, perhaps as much blame rests with the native customs.

"The woman, after delivery, is placed in a small damp room, very ill ventilated, with one small door only, and no window or opening of the nature of a chimney. This apartment is a temporary hut of mats and bamboo, thatched with straw or grass, in a corner of the compound, detached from the dwelling-house, (the woman during such period being considered impure,) and is generally kept for the sole purpose of the woman of the family being delivered in it. This remark applies even to wealthy natives, who have substantial houses for dwelling in, except a few who do not observe the custom. From the moment after delivery, the doors being closed, wood fires are kindled in different parts of the room, sometimes two, sometimes three, the smoke of which is allowed to find its way through the walls and roof. Thus the room is kept at a great heat; it cannot, I think, be below 90° Fahr. During the first three days they give the woman a powder made of stimulating spices, as black pepper, long pepper, and dry ginger; at the end of which period she begins to take the same ingredients made into a paste by means of hot water. It is the invariable custom to give this powder and paste, whatever the state of the mother's health may be; although in many instances it is extremely prejudicial, in others dangerous to life. This may be judged of when I state, that three or four women out of twenty die of fever and tetanus, produced by this treatment in six, eight, or ten days after parturition. With regard to medical aid, the doctor is never called in, unless the woman is apparently in danger; and the prejudices in favour of these customs are so great among the Hindoos, that a medical man would find it very difficult to prevent their being followed."

Dr. Duncan Stewart says:—

"Of native customs injurious to health, their treatment of parturient women and their infants occurs most forcibly to me. Labour is generally conducted in the erect posture, and is not considered complete till the expulsion of the placenta, which is effected by force, the quicker the better, and often followed by dreadful hæmorrhage. *La nouvelle accouchée* is immediately subjected, with closed doors, to a fumigation of pyroligneous acid, from the combustion in her chamber of green wood. Puerperal fever, tetanus, and other diseases, are frequent and fatal. The infant they never wash until the following day, and after it has been well spread out and dried in the sun."

The concluding essay "On the Treatment of Laryngismus Stridulus" is chiefly valuable from the number of cases collected to prove the great benefit that may be expected to follow change of air, accompanied by out-of-door exercise, and this during the most unpromising periods of the year.

The great length to which we have extended our notice of this book proves the high estimation in which we hold it. It is well worthy a most careful perusal.

Pharmacopœia ad Usum Nosocomii Phthisicorum et Pectoris Morbis Ægrotantium Accommodata. Editio Secunda. Londini: Apud Bradbury et Evans. 1851.

A useful collection of prescriptions employed at the Brompton Hospital for Consumption. The high reputation of that Institution, and of its medical officers, may be taken as a guarantee for the value of the formulæ which they publish in their Pharmacopœia; and the cursory glance we have been able to give it, shows that the guarantee has been fulfilled. Medical men having cases of pulmonary disease under their charge, will find in this little book prescriptions adapted for the treatment of every stage of such diseases. It must be of great service to every practitioner.

GENERAL CORRESPONDENCE.

HOMŒOPATHY AND ITS STATISTICS.

[To the Editor of the Medical Times.]

SIR,—The disadvantage under which a writer must labour, who is called upon to reply to the anonymous criticism of a journal which may be regarded as the salaried opponent of the principles he

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adopts, is so obvious as to render its exposition scarcely necessary. Such is the position in which I find myself placed with reference to an article, purporting to be editorial, which appeared in your journal of the 2nd of May, commenting on a paper written by me, and published in the *Homœopathic Times* of the 15th of December last. To expect from you a fair and honourable criticism would be absurd; science, it would appear, has its partisanships as well as its philosophy; and, as a journal of the medical Conservatives, it becomes your duty to contend for the principles advocated by your supporters. There are two modes, however, of contending even for a principle,—we may choose our weapons. The small sword and the poisoned dagger are equally available; and the latter seems, evidently, to have been the weapon of your choice on the occasion in question. But, go on, Sir, we shall find in your own columns a balm for every wound. "Abuse the homœopaths, gentlemen, as much as you please; it is but fair that you should have some pleasure to compensate for cash sunk and hopes frustrated; *but avoid personal attack!*"

It must be apparent to all who have perused my paper on cholera, that it never aimed at being a statistical report. My object was simply that of presenting a statement of cases of true Asiatic cholera, the greater number of which occurred within a very circumscribed district, in order to counteract the unfavourable impressions sought to be made on the minds of our patients and the public, by the false representations of allopathic practitioners. It will be seen that my intention was simply that of recording the comparative success of the treatment of several cases, by the ordinary or allopathic, and by the specific or homœopathic practice. These cases occurred in a locality in which the prevailing epidemic was unquestionably of the true eastern type; and the only object in view, in perusing the official register, was simply that of ascertaining how many of the deaths were recorded as having been cases of true Asiatic cholera. I unhesitatingly affirm, and defy contradiction, that we never entered the house of a patient, unless at the request of the family, and with the assurance that no other practitioner was in attendance. The success which attended our treatment, naturally led to anxiety on the part of the friends of many who were treated by allopathic practitioners, to consult us; and I believe we were occasionally deceived into visiting their patients, under the impression that no other practitioner was then in attendance. On the other hand, regarded as usual as unorthodox, and therefore unworthy, in their high esteem, of gentlemanly or professional consideration, our opponents never hesitated to force themselves into the sick chambers of our poor patients, affirming to their friends that our medicines were nothing but water, and that inevitable death would be the consequence of their refusing their medicines, which appeared to consist exclusively of the obsolete chalk mixture and calomel powders.

There are many misstatements in Dr. Taylor's Report,—the case of the boy Micklethwaite is one. I saw this boy for five minutes at the urgent request of his friends, gave him some medicine, but soon ascertained that another medical man, Mr. Allatt, I believe, was in attendance,—or ought to have been, for the patient lay writhing in agony, and was left to chalk mixture, calomel, and chance. It will be seen that the majority of the cases recorded by me occurred at Johnny Moore Hill, where the type of the disease, and its attendant circumstances, precluded all doubt as to its character; and it will also be collected from Dr. Taylor's Report that he has recorded very few cases, except those which occurred at Johnny Moore Hill, or in its immediate vicinity, which must not be regarded as having been cases of ordinary autumnal cholera.

I fully concur in your opinion of the qualifications necessary to the statistician; but I can by no means accord to Dr. Taylor's Report that accuracy of fact from which alone just inferences are derivable. In the first place, the cases treated by us are unceremoniously ignored. This, Sir, is the very popery of physic. We have only to acknowledge the fallacy of physic, to be at once stamped as heretics, and virtually excommunicated. Again, in Dr. Taylor's Report, there are cases which he pronounces emphatically to have been "undoubted" Asiatic cholera; but why are these cases mingled with others which were not only doubtful, but clearly not Asiatic cholera at all? Has Dr. Taylor arrived at the conclusion, that they are all modifications of the same disease,—Asiatic cholera and English, diarrhœa and dysentery? Here, at least, we have a new idea; and in the dry details of statistics, we should be thankful for a sprinkling of the "dulce" with the "utile." But, in sober earnestness, I should as soon have expected to meet with cases of small-pox and measles in a statistical report of epidemic scarlet fever. The diseases have unquestionably as little relationship as small-pox to scarlet fever which Dr. Taylor has introduced into his motley Report. Then consider the authority on which his statistics are based. Had the cases related, or even the greater number of them, come under Dr. Taylor's own personal observation, it is just possible that they might have been correctly reported, carefully collated, and rendered subservient to the establishment of some general proposition. On looking over the Report, however, we find that Dr. Taylor's cases are almost all derived from mere hearsay evidence, the name of the attending practitioner being given as a symbol of genuineness. It must be apparent to the most ordinary observer, that the Report in question has been written for the sole and only purpose of attempting to subvert my plain, simple, and too-intelligible facts; and the means employed in the undertaking were clearly regarded as a matter of secondary consideration.

If, Sir, statistics afford valuable aid in the advancement of science, they are no less useful to those who wilfully essay to pervert facts. An array of numbers presents a very imposing aspect, and commends itself to us as much by the appearance of industry it exhibits, as by the palpable argument it conveys. But I deny, that facts in medical science, collected, as Dr. Taylor's cases have been, by circulars to the neighbouring practitioners, written during his leisure hours, can be regarded either as evidence of his industry, or as being of the least value as a basis for sound reasoning. What reliance, in a sanitary or scientific point of view, can be placed on such evidence? To render such indiscriminate evidence of any value, presupposes, on the part of each individual witness, superior professional acquirements, a sound and well-cultivated judgment, and, above all, honesty of intention. The two former qualifications are the combined result of genius and education; and the columns of the *Medical Times* will bear me out in affirming, that these are not generally to be found amongst the members of the College of Surgeons, who are, for the most part at least, as versed in that moral surgery which consists in mutual "throat-cutting," as in the tying of arteries or diagnosis of disease. The latter quality, honesty of intention, it will hardly be denied, is a very necessary item in a collection of statistical facts; and he must be very credulous indeed who will award to Dr. Taylor and his assistants, in the instance in question, the meed of praise for an unbiassed desire to promote science and to arrive at truth. There can, indeed, be scarcely a doubt that the report to which I refer and the panegyric on the performance, which appears as a leading article in the *Medical Times* of Saturday, the 3rd of May, are both the work of the same hand, and the whole the result of a conspiracy to injure in public and professional estimation, those who dare to advocate the proscribed doctrines of Homœopathy. That the columns of your journal, which has hitherto held an honourable position in medical literature, should have been lent to such a proceeding, is sufficient to excite our surprise. On the other hand, we are by no means astonished at the species of intellectual offspring with which Dr. Taylor has presented us after an incubation of nearly eight months. As a statistical report of Asiatic Cholera, (diarrhœa, dysentery, and English cholera inclusive), it is as pretty a bantling as ever slept between the folds of a blue-book. In truth, it seems difficult to decide which most to admire, whether the diligence, patience, and perseverance bestowed on his Herculean labour, or the ingenious logic by which he arrives at exactly the same conclusions published so very long ago, as the result of the deliberations of the General Board of Health. It must be confessed that there is a great economy of time and intellectual labour in this mode of reasoning. It entirely supersedes the disagreeable process of thinking;—a process which, after all, is only useful when it becomes necessary to communicate an idea; but entirely valueless—sheer waste of time—when, as in the case of Dr. Taylor's deductions, those ideas have been communicated before!

You favour us with some remarks upon the professional conduct of homœopathists. I know of no homœopath, but many allopathic practitioners who might have sat for the picture, "*Mutato nomine, de te fabula narratur.*" It is now three years since the allopathic garrison of Huddersfield first opened its blank artillery against the advance of homœopathy. The first shot was a paper pellet fired by a Dr. ——, of evanescent celebrity, who very professionally, in the most gratuitous manner, waited upon a patient, then under homœopathic treatment, armed with Dr. Wood's "Homœopathy Unmasked," (without the reply to it,) in order, as he assured her, to disabuse her mind of the delusion under which she laboured; but his treatment of the case was, as is not seldom the result of his prescriptions, unsuccessful, for the patient labours under the same "*delusion*" still.

Should a patient die whilst under homœopathic treatment, and such deaths are not unfrequently the result of former treatment with blisters, calomel, physic, and phlebotomy, the town rings with the news of "another victim to homœopathy." Those who die, it is affirmed, would certainly have recovered under allopathic

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treatment; and of those who recover, it is averred that they were never ill at all.

The instances of the most grossly unprofessional conduct on the part of allopathic practitioners in Huddersfield are indeed of daily occurrence, and might be given *ad infinitum*; but as such conduct injures nobody but themselves, it is not worth while to waste time and space in commenting on it.

Homœopathy, like all new truths which interfere with long-existing ideas and stereotyped prejudices, has much to contend with, and nowhere more than in Huddersfied; from Dr. A, who with imperturbable gravity and a pitying smile, gives it the gentle "go bye;" and Dr. B, who, with the elevated brow and nasal twang of a true Puritan, affirms that it is all "sheer quackery;" to Mr. Bolus, who, in coarser phrase, would annihilate it at once, with an emphatic imprecation. But the sneers of irony, the shafts of malice, and the envenomed tongue of falsehood, have hitherto assailed it in vain; and why? because its chief supporters are such as the public can most easily appreciate—its facts.—I am, Sir, &c.,

P. BRADY.

Huddersfield.

[To the Editor of the Medical Times.]

SIR,—I have to acknowledge your courtesy in enabling me to reply, in the same number of your journal in which it appears, to Mr. Brady's letter in which, among other things, he has impugned the accuracy of my statements respecting the cholera at Huddersfield.

Mr. Brady states, that the greater number of my cases were not cases of Asiatic cholera, but were cases of ordinary autumnal cholera, diarrhœa, or dysentery. This important statement rests only upon Mr. Brady's naked assertion. There is hardly even the appearance of an attempt to adduce evidence. Such reasons as are given, however, I proceed to examine. There is no attempt made to dispute the genuineness of the cases at Paddock. They were seen by myself, and by too many other persons, to admit of a doubt being suggested. The dispute refers solely to cases occurring in other places. In respect to these, it seems that Mr. Brady objects—

1. To the authority upon which my report is made. He says:—"The cases are almost all derived from mere hearsay evidence;" that "they were collected by circulars to the neighbouring practitioners, written during my leisure hours;" that for such "indiscriminate evidence" to have "any value, presupposes on the part of each individual witness, superior professional acquirements, a sound and well-cultivated judgment, and, above all, honesty of intention." "The two former qualifications," he says, "are not generally to be found among the members of the College of Surgeons, who are, for the most part, at least as versed in that moral surgery which consists in mutual throat-cutting" as "in the diagnosis of disease." My reply to this evidence (as I suppose Mr. Brady would call it) is this:—Neither I nor any other practitioner could personally see all the cases; and respecting those which I did not see myself, I took all the care I could to obtain accurate information. I did not sit at home and issue circulars to the surgeons. There is no surgeon from whom I have derived any information whom I did not see personally. I inquired of them minutely into all the circumstances which I thought could throw light upon the diagnosis, and upon the mode of origin, (the only points I undertook to investigate in my paper,) of nearly all the first cases in each district, *i.e.*, of all that were required for the solution of the problem before me. I visited every important locality personally, inspected the houses and nuisances, and carefully collected all the information I could from the families which had been visited, and from the neighbours. In order to have a pretty complete catalogue of the cases of cholera, I requested the surgeons to give me, in writing, a list of all the cases, with certain particulars regarding them, treated by them. I requested them particularly to distinguish the cases which, according to the best judgment they could form, belonged to the class of epidemic cholera, as contrasted with all other forms of bowel-complaint, and to give me the former cases only. That they did make this distinction is shown by the small number of cases given to me, compared with the great number of cases of bowel-complaints of all kinds which, as is universally known here, they were called upon to treat.

2. Mr. Brady observes, that I speak of some as "undoubted" cases of cholera, and seems to infer, that I therefore thought the others doubtful. In inquiring how the first case or cases came into any place, it was an essential point to be right in the diagnosis. After making full inquiry, and recording the result, I frequently added my opinion, that the nature of the case could not be doubted. These expressions in my note-book I have sometimes copied. I did not intend to imply that the remaining cases were doubtful; in respect to many of them, indeed, I have equally minute evidence of their genuineness. But the same minuteness of inquiry was not required for my object in all cases, and some are therefore recorded simply upon the authority upon which I received them.

3. The accuracy of my report is impugned, because I have "ignored" the homœopathic cases. My reply is, that they did not require to be noticed in an inquiry limited to the mode of origin and propagation of the disease; and that, if I had required them, as I could not obtain the necessary particulars without applying to persons with whom I have long deemed it improper to have any communication, I should have contented myself with omitting them, and pointing out the link which would then have been wanting in my chain of evidence.

4. Mr. Brady says, "there are many mis-statements" in my report, and that "the case of the boy Micklethwaite is one." Mr. Brady does not inform you in what the mis-statement consists, and I need, therefore, only to add, that every statement made respecting this boy rests upon evidence carefully collected and sifted by myself, recorded in writing at the time, and now in my possession.

I believe I have examined all the grounds upon which the accuracy of my Report is questioned. Of their validity, I leave your readers to judge.

In the editorial article of your Journal for May 3rd, my report has been used for a purpose for which it was not written, but to which, nevertheless, I think with you, it is properly applicable. Mr. Brady's remarks upon that article I might leave altogether to you; but there are some facts, bearing materially upon the subject, with which you cannot be acquainted, and of which, therefore, I beg to put you in possession.

Some time ago, Mr. Brady published an account of "The Cholera at Huddersfield." I wish you would reprint that account—it well merits that distinction—and then your readers would clearly see for themselves that the writer has attempted to damage the allopathic system of medicine, and the professional character of those who practise it, by an erroneous representation of the results of their practice. Mr. Brady's vexation at your exposure of the means by which this attempt was made is as natural as it is well-deserved, and has, no doubt, moved him to the attempt, which I have just examined, to question the accuracy of my report. In anticipation of his failure, he has sought another way of escape from the unenviable position in which you have placed him. Of this I must now say a few words.

Mr. Brady published "A Table of Cases of Epidemic Cholera treated in Huddersfield and its vicinity." Of this Table he says: "So far as I could gain information on the subject, I pledge myself for the accuracy of my Report. The deaths were copied from the books of the Registrar in Huddersfield." According to Mr. Brady's Table, there were twenty cases treated allopathically, of which two only ended well, and eighteen ended fatally; whilst out of eight patients treated homœopathically, all recovered. He mentions by name three medical gentlemen as having "had the not very enviable honour of having attended the patients before-named as having been under allopathic treatment, which treatment presented such an unheard-of per centage of deaths." This paper was reprinted from the *Homœopathic Times*, and circulated in Huddersfield. Of this reprint I now enclose you a copy. Can the purpose of such a paper as this be mistaken? Mr. Brady thinks that the medical men of Huddersfield are such dolts as not to understand it; or rather, he thinks that the public, for whom alone he (and such as he) writes, are too little versed in medical questions to be able to see through his mystifications. In his letter to you he says, "it must be apparent to all who have perused my paper on cholera, that it never aimed at being a *statistical Report*." What, then, is meant by a *per centage* of deaths? Can *that* be determined by any other process than by collecting and counting *all* the deaths, and *all the recoveries*? Yes! Mr. Brady has determined it, by copying the deaths from the Registrar's book, adding (at random) a small per centage of recoveries, and so proving the existence of "an unheard of" mortality.

To excuse the incompleteness of his table, Mr. Brady seeks to convey the impression that he limited the field of his report to one district—to "a locality in which the prevailing epidemic was of the true Eastern type." Now, by consulting his table, you will see that the cases enumerated occurred in nine distinct places, (one of these, however, should be excluded,) and some of these are at considerable distances from each other. I have re-examined my table, and I find that the cases of *recovery* from cholera, in or near to the places named in Mr. Brady's table, and omitted by him, amount to forty-six in number. Mr. Brady could collect the deaths from these places, but could only "gain information" of two recoveries. In one of these places the case of a woman, (No. 64 in my table,) who *died*, is reported, whilst the cases of her husband and child, (Nos. 65 and 68,) who lived in the same house and *who recovered*, are omitted.

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But let us limit our inquiry to Paddock, the place in which Mr. Brady says, "the prevailing epidemic was of the true Eastern type," and in which I saw nearly all the cases myself, in company with three or four surgeons. The cases treated by us amount to 26. Of these, 11 died and 14 recovered. These cases were nearly all of the very worst description, occurred in the worst neighbourhood, and among the worst class of subjects. Among the deaths also are included *one* of a woman aged 78, and *two* of infants of very tender age. In this, the professedly chosen field of his own report, Mr. Brady has recorded *two* only of the recoveries, and has omitted *twelve*. Among the cases of recovery omitted, several occurred in the same houses with others which proved fatal and have been reported. Mr. Brady could easily have obtained information of all the recoveries in this place if he had desired to do so, but such information was not necessary, as we have seen, for his method of determining the per-centage of deaths.

There is one case of recovery given in Mr. Brady's Table, however, which shows the animus with which his report has been written quite as clearly as all the cases which he has omitted. I refer to the case of Mrs. Micklethwaite, No. 35. To this case Mr. Brady has added the following note in his table:—"Supposed cholera." The son of this woman was attacked with cholera on the evening of Sept. 21st, and died after seven hours' illness. The mother was attacked with diarrhœa on the morning of the 22nd, and with cholera in the succeeding night. The father, her husband, began with diarrhœa at 10 p.m. on the 22nd, and with cholera in the course of the night which followed. The husband and wife were lying ill in the same bed. He died in seventeen hours. She recovered, after a long consecutive fever. Her symptoms were as severe as those of any patient who died of cholera. No case, whether the symptoms or the circumstances be regarded, could be more clear. Mr. Brady visited the son, and, I have reason to believe, that either he or his employer saw the mother; but, whether he saw her or not, he could hardly fail to be acquainted with the circumstances I have detailed. Why, then, has he marked this case as doubtful? I can imagine no reason but this, that the woman was under allopathic treatment, and recovered.

The rest of Mr. Brady's letter consists of simple abuse, or of statements which are either quite irrelevant, or equally incorrect with those which I have noticed. I therefore pass it by.

I have now finished my examination of Mr. Brady's letter, and of his report. Many of your readers may feel surprised that I should engage in such a work. I can assure you, I never undertook a task which I felt to be more humiliating. Disagreeable as it has been, however, I have performed it as a duty to my professional brethren. I am not so simple as to expect that this exposure will have any good effect upon the minds of the indiscriminate advocates of homœopathy; but it is well for medical men to have the opportunity of judging, from time to time, of the character of homœopathic statistical reports.—I am, Sir, etc.,

Huddersfield. JOHN TAYLOR.

THE MORTALITY IN LONDON HOSPITALS.

[To the Editor of the Medical Times.]

SIR,—In the Report of the Registrar-General for the week ending Saturday, May 17, is contained a table illustrating the rate of mortality in the London hospitals. This table is framed exclusively with reference to the in-patients, and contains an apparent difference of as much as 64 per cent. in the "annual deaths of the sick population" in different institutions.

Such a startling statement, if allowed to pass unexplained, might lead those who are unacquainted with hospital statistics into serious error. The circumstances of the case, however, require only to be clearly stated in order to obviate any misapprehension upon the point.

The number of deaths that occur at any hospital are nearly equal to the number of fatal cases among the in and out patients combined; for, as soon as an out-patient becomes seriously ill, he is, in the great majority of cases, at once taken into the hospital. It is evident, therefore, that a large comparative number of out-patients necessarily involves a large proportion of serious cases, and consequently a high rate of mortality in the hospital; and that any comparative results, in order to be correct, should have reference to the in and the out patients conjointly. I will only offer one illustration of the different modes which may be adopted in calculating the number of fatal cases, and the cause of the different results obtained by the Registrar-general from different Institutions will at once be obvious. According to the printed Report above referred to, the mortality of the in-patients at King's College Hospital during the year 1850 was 10 to 11 per cent. On the other hand, had the whole of the patients been included in the calculation, the mortality would have been about a half per cent., or one out of every one hundred and ninety patients.—I am, &c.

13, Dover-street. HENRY LEE.

REMARKS ON THE FIFTH REPORT OF THE COMMISSIONERS IN LUNACY.

[To the Editor of the Medical Times.]

SIR,—Before reading your leading article of the 17th inst., I had observed that "the Fifth Report of the Commissioners in Lunacy was very meagre." And now, having read your comments on that Report, as one of the public I thank you.

Your comments are truth, yet without commiseration for the Commissioners; and I am stirred up in their behalf to suggest the following:—

Theirs must be a most difficult Report to draw up impartially; they are but men, and that would be a wise law which would give the public information on the interesting subject of the Report, without its passing through a medium which must of necessity receive a tinge from the bile or the spleen of "men."

An efficient statistical report would do this.

The returns of a county asylum or a licensed house speak plainly for or against the management therein; and the remedy I would suggest is, that the returns of the admissions, cures, deaths, removals, and the average duration of treatment, always in the hands of the Commissioners, be published in a form similar to the following:—

Annual(a) *Tabular View of the Returns of* ——— *County Asylum.*

No. of patients Admitted	Removed.	Dead.	Cured.	Date of Admission of each of the cured.	And their respective dates of Discharge.	Duration of Treatment in Weeks and Days. W.	D.	Average duration of Treatment. W.	D.
99	47	10	6	Nov. 11, 1849.	Feb. 12, 1850.	13	1	40	6
				Aug. 4, ,,	April 1, ,,	34	2		
				Sept. 20, 1848.	June 29, ,,	92	2		
				Jan. 11, 1850.	Aug. 10, ,,	31	1		
				Jan. 24, ,,	Oct. 12, ,,	37	2		
				March 17, ,,	Dec. 4, ,,	37	3		
						245	1		
——— COUNTY ASYLUM.									
47	19	8	6	Aug. 3, 1848.	Jan 21, 1850.	76	3	37	1
				Sept. 16, 1849.	March 3, ,,	24	0		
				Jan. 11, ,,	April 4, ,,	65	6		
				Jan 30, 1850.	May 20, ,,	15	5		
				May 4, ,,	Sept. 15, ,,	19	1		
				June 2, ,,	Nov. 13, ,,	24	1		
						228	2		
——— LICENSED HOUSE.									
27	15	4	4	Jan. 6, 1849.	Feb. 1, 1850.	56	1	29	5
				Sept. 4, ,,	April 12, ,,	31	3		
				June 3, 1850.	Sept. 29, ,,	16	6		
				Sept. 1, ,,	Dec. 13, ,,	14	4		
						119	0		

The returns of those county asylums, hospitals, and licensed houses that select or reject their patients, and those that dismiss them at the end of twelve months when not cured (as Bethlehem and St. Luke's) should stand by themselves, not classified with the rest; for the number of their cures should be greater, and the number of their deaths should be less, than those of county asylums, hospitals, or licensed houses, where no such plan is adopted.

The returns of the admissions, cures, and deaths in each county asylum, hospital, or licensed house, have been in the hands of the Commissioners in Lunacy, under the two present Lunatic Acts, since August, 1845; and such a Statistical Report as that which I am now advocating, published in their Annual Report to the Lord Chancellor, would be a complete "tell tale," and would enable the public to judge where it would be desirable to send an afflicted relative, in the same way that the intelligence afforded by the London price current directs the merchant to the best market. As

(a) Or it might be a "quarterly" view, published in the public newspapers.

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it now is, the public have no precise information to guide them. Were the returns of the admissions, cures, deaths, and removals,(a) and the averaged duration of treatment published, it would "better" the "execution of the duty" of the Commissioners; but these returns, being kept "secret," all is kept "secret," except that which is pleasing to the Commissioners to tell; and the public remain with only the exteriors of fine buildings and grounds, and well drawn up advertisements, to guide them in their decision. These may be good decoys for the unwary; but how can conflicting systems of treatment be compared, when the means for ascertaining the results are neglected?

The public should have a foundation for their judgment, and the foundation I have suggested, namely, a Statistical Tabular Report of the admissions, cures, deaths, and removals, and the average duration of treatment in each county asylum, hospital, and licensed house in England and Wales, would be a safe one. Such a Report would also protect the lunatic, prevent the maladministration of the law, either by the Commissioners in Lunacy, the visiting justices, or superintendents of asylums, and tend to make all parties upright. I am, &c. M. S.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. Hodgson, Esq., F.R.S., President, in the Chair.

ON FATTY DEGENERATION OF THE PLACENTA, AND ITS INFLUENCE AS A CAUSE OF ABORTION; DEATH OF THE FŒTUS, HÆMORRHAGE, AND PREMATURE LABOUR.

By ROBERT BARNES, M.D. Lond.,
Obstetric Surgeon to the Western General Dispensary, Lecturer on Midwifery.

The Author commences by relating two cases of premature delivery at the 7th month. In the first, flooding occurred twice without obvious cause, and unaccompanied by pain, at the third month, and again at the seventh month, when labour followed. In the second case there was no hæmorrhage previous to delivery. In both cases death of the child had occurred some time previous to delivery. In both cases the placenta was studded with fatty masses, apparently isolated from the surrounding structures. These masses were firm, yellowish-white, and bloodless. On careful dissection, it was obvious that the diseased and apparently healthy portions of the placenta were continuous, and that the fatty masses were the result of fatty deposit or degeneration in the proper placental structure. In one case, branches of the umbilical vessels in an atrophied condition were traced through several of the fatty masses. In the examination of the minute structure of the altered parts, the Author had availed himself of the assistance of Dr. Hassall. The following conclusions had been arrived at:—The placental villi were thickly studded with innumerable minute spherules of oil. The chorion was much altered; thickened, destitute of nuclei, of a yellow colour, and more or less broken and detached from the vessels. The umbilical capillaries no longer presented nuclei in their walls, these being replaced by spherules of oil. The spherules of oil were contained, some in the chorion, others in the walls of the blood-vessels, many in the intervals or spaces between these. The cavities of the vessels were almost exclusively free from fatty deposition. The vessels were destitute of blood. In some parts the process had extended to complete disintegration of original structure. In those parts that appeared healthy to the naked eye, evidences of fatty deposit and degeneration being in progress were observed. A number of specimens of sound placentæ had been examined, and the occurrence of a certain proportion of oil as a normal constituent had been determined. (Drawings showing the microscopical appearances were exhibited.) With the exception of a case of fatty degeneration of the placenta, recorded by Professor Kilian, and of which an abstract appeared in the *British and Foreign Medical and Chirurgical Review*, for January, 1851, no distinct recognition of the nature of the affection is to be met with. The Author regards the fact of the occurrence of this change of structure in the placenta as highly interesting both to the pathologist and to the obstetric practitioner. It promises to throw light on the disputed question of hereditary transmission of the predisposition to this disease. It shows how rapidly such change of living structures may take place. The conversion of portions of placenta into solid unyielding structure, and the consequent imperfect attachment of these portions, and of the surrounding healthy structure, to the womb, give rise to hæmorrhage, and premature labour may occur possibly during the life of the child. A more frequent occurrence probably is the destruction of the fœtus in consequence of imperfect nutrition, and by a process of slow asphyxia. Fatty degeneration may also cause abortion in the early periods, the ovum being affected. With reference to treatment, it was suggested, whether the known disposition to this destructive change, if established by the observation of preceding pregnancies, might not warrant the induction of premature labour, with the view of anticipating the period at which the fœtus would almost certainly be destroyed, if left in the womb. Some suggestions were also offered with reference to the general treatment to be adopted with a view of counteracting the disposition to fatty degeneration before and during pregnancy. The paper concluded with the expression of the hope entertained by the Author, that his account of the process of fatty degeneration in the placenta would be accepted as a useful contribution in extending the knowledge of an important subject in general pathology, and in directing attention to a source of danger to mother and offspring, comparatively unnoticed in obstetric practice.

Dr. Quain said, that the author of the interesting communication which had just been read had not sufficiently distinguished between the process of fatty deposition and fatty degeneration, but had used the terms indiscriminately. There was, however, a broad distinction to be drawn between these processes. In the one case, fat was deposited from the blood in the form of adipose or fatty tissue, composed of large cells containing oil; in the other case, the fatty matter, which appeared as mere granular particles, was the result of decay and degeneration. This latter process was a physical or chemical change to which albumen and fibrine, and the structures into the composition of which these substances entered, were liable. It occurred in dead flesh, and constituted the substance called adipocire; it could be formed experimentally, and the progress from disintegration followed; and it may be witnessed in the living body in fibrinous and other effused products placed beyond the sphere of vascular action, and in living textures in which the nutritive process was impeded by obstruction to the circulation, by inflammation, etc. Fatty degeneration he thought, then, was nothing more than a process of decay, or disintegration. In reference to the present case, he believed the degeneration to have taken place as the result of inflammatory action, of a deposit of some of the albuminous or fibrinous elements of the blood, or of some modification of the process of nutrition, as illustrated in a case of hypertrophy of the placenta mentioned by Dr. Barnes. He (Dr. Quain) thought that it was by tracing the origin of the lesion in this direction, rather than by adopting the view ingeniously suggested by the author, that we could hope to find a plan for counteracting this process in those cases in which it had previously occurred, and was likely again to occur.

Dr. C. J. B. Williams referred to some points alluded to by Dr. Quain, fatty degeneration being a very important question, not only because it is a serious alteration of structure, but because it constitutes a marked element in other morbid processes and cachectic conditions of the body. He believed that Dr. Barnes had shown the occurrence of fatty degeneration of the placenta, but he (Dr. Williams) could not look upon it as a primary disease, nor that any measures specially directed in that view to prevent abortion, would be successful. He considered that the author had laid too much stress on this degeneration being an independent vital process, instead of being a chemical change of fibrinous or albuminous tissue, consequent on a failure or deficiency of nutrition. This latter view had been demonstrated by Mr. Gulliver, in his paper on "Atheroma of the Arteries," published in their "Transactions," and also in his editions of the works of Gerber and Hewson. He himself (Dr. Williams) had, about that time, compared this degeneration to the alteration of dead tissues into adipocire, and had mentioned several cases in which the results of inflammation, etc., had been thus more or less modified. Dr. Quain had still further elucidated and supported this view by his researches, and had shown also the manner in which defective nutrition contributed to the occurrence of this dege-

(a) See the oath taken by the Commissioners, in 8 and 9 Vic., cap 100.

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neration. He (Dr. Williams) thought, therefore, that it might be regarded as a general law, that when nutrition was greatly impeded, but not quite arrested, fatty transformation would ensue, as may be found in imperfectly organised lymph in the pleura, pericardium, or peritoneum, in the lungs or in cellular membrane, fibrinous clots in vessels, blood-clots in the brain, in soft and recent enlargements of the liver, kidneys, testicles, etc., in crude tubercles and in morbid growths, whether malignant or not. This law would explain much that was obscure in pathology, and would lead them to look beyond from the mere degeneration, to impaired or obstructed circulation, and sometimes to the diseased state of the blood itself.

Mr. Streeter trusted the present monograph would be published in the "Transactions," where no disease of the placenta except that of adhesion to the scalp, had as yet appeared. That had been recorded by him whom he might well call the obstetriarch of the Society, Dr. Robert Lee. In Brachet's Memoir in the *Journal de Médecine*, the theory of inflammation was employed to explain all morbid phenomena. At the present day the views of fatty degeneration, and of fatty diathesis were carried as far; but he thought these hypotheses could not be fairly regarded as the sole causes of placental disease. The placenta certainly consisted of uterine and fœtal portions, separated by an intermediate membrane, an independent development most probably from the villi of the chorion. He made it an invariable rule of practice to carefully examine the maternal surface after every confinement, and to watch with extraordinary care for the approach of uterine symptoms wherever he saw morbid change in the placenta; because a proneness to disease may reasonably be inferred to exist in the portion of the uterus which had corresponded to the morbid surface of the expelled placenta. He stated that disorganisation of one or more lobules was by no means uncommon, and certainly not always uniform in its character. He regarded this limitation as a necessary consequence of anastomosis being confined to the larger trunks, and not existing between the terminal branches of adjoining lobules. Comparative anatomy in the ruminants, and Mr. Goodsir's microscopic examinations of the human placenta, went far to prove that the fœtus was nourished by a milk-like secretion from the uterine element of the placenta—a development from a true mucous membrane—and that this secretion was imbibed by the looped and terminal capillaries of the placental tufts of the umbilical circulation—the true fœtal element of the placenta. A local error of secretion in the uterine membrane or an accumulation of its products round the umbilical capillary tufts, from defective power of imbibition in a weakly fœtus, seemed to him more probable hypotheses than the one of fatty diathesis in the systemic circulation of the mother, finding relief by a local deposit of its overcharge of fat in the cellular element of the placenta. It was the glandular mucous membrane lining the interior of the uterus which, he believed, received the seeds of syphilis from the male semen, and in which syphilis remained dormant till developed with the growth of the membrane in pregnancy, when its poisonous secretion destroyed the fœtus long before it acquired intensity sufficient to enter and infect the general system of the mother. He would not allude to his published views on the causes of miscarriage, further than to say that all subsequent inquiry and experience strengthened his belief that the early death of the embryo was the result of some interruption to its respiratory function, and not to any disease of the placenta itself. Nearly all the instances of apparent disease of the placenta would, on careful examination, be found owing to arrest of the development of the umbilical tufts by the death of the embryo, and the consequent sanguineous effusions and inharmonious development of the maternal portions of the organ.

Dr. Robert Lee could not agree with Brachet respecting the occurrence of inflammation of the placenta, but, on the contrary, he believed there is no organ so little liable to it. He had never met with any of the changes caused by inflammation, such as false membranes, or pus, in the placenta, although he had seen clots of blood in it, softened so as in some degree to resemble pus. The placenta, however, was liable to some diseases, which had been well described by Cruveilhier. He did not believe that the cases mentioned by the author were instances of fatty degeneration at all, but simply of hypertrophy; in this view he was confirmed by the recent researches of Mr. Wharton Jones. In some cases, where abortion takes place, a whitish matter may be found under the placental decidua, and a hard, yellow, semi-cartilaginous substance in the centre of the blood coagula, these being the result of a diseased state of the villi of the chorion. He (Dr. Lee) had mentioned, in a lecture in the *Medical Gazette*, a case where fat was found in the placenta; but he knew not of any cases where that organ had so degenerated. A case of so-called fatty placenta had been described by Mr. Wilde, but he (Dr. Lee) thought that it was an instance of diseased villi of the chorion, interfering with the circulation, of which he had seen an example in one woman at several confinements. It may be found in different stages of progress, and, unless it be much advanced, the child's life may not be lost, but it will be thin and weakly. Induction of premature labour will not be of any use. In the case of a lady, in whom abortion was caused by fright, the child was born dead, one half of the placenta being atrophied. The causes and treatment of the diseases of the placenta are not known; syphilis may have something to do with them; the appropriate treatment for that disease may then be serviceable. Dr. Lee concluded by referring to a case of cystic disease of the placenta, in which a homœopathic practitioner had been consulted.

Dr. Barnes thanked the Society for the attention paid to his paper. In answer to Dr. Quain, he would state that he had read his (Dr. Quain's) paper with much interest, and he hoped with some instruction, but he had not been able to adopt his distinction between fatty deposition and degeneration. In the cases before the Society, every degree of deposition and degeneration had been observed in different parts of the placenta. Dr. Barnes was disposed to believe that deposition and degeneration were merely different stages of the same affection. In dissenting from the opinions of Dr. Williams, Dr. Barnes felt considerable diffidence, but he could not accept Dr. Williams' explanations of these cases. That the fatty degeneration was not the result of the conversion of any inflammatory or other effusion seemed proved by the facts, that in no part had fibrine, or any other abnormal deposit, been detected excepting fat; that the fatty degeneration, as was clearly shown in the illustrations submitted to the Society, was found affecting the coats of the umbilical vessels, the chorion investing them, and the other proper tissues of the placenta; and, further, that the affection was traced in these tissues through every stage, from simple deposition to actual degradation. He, therefore, regarded the fatty degeneration in these cases as a primary affection. Neither could he admit that it was consequent upon the death of the fœtus. The history showed that the fatty degeneration was the cause of the death of the fœtus. Dr. Barnes, however, stated, that he he was in possession of another case, the particulars of which he would beg permission to lay before the Society at a future meeting, in which, undoubtedly, fatty metamorphosis of the placenta had taken place after the death of the fœtus in the early months of pregnancy. Dr. Barnes was surprised that Dr. Lee should, on the ground that he had not recognised fatty degeneration in the placentæ he had examined, deny the existence of that affection. Dr. Lee had also referred him to Cruveilheir for information on the subject. Dr. Barnes had not neglected to consult any author whom he knew to have written on diseases of the placenta. In Cruveilhier, indeed, he found valuable information on other diseases, but not a word about fatty degeneration. What Cruveilhier had written was mainly based upon the monograph of Brachet, to which Mr. Streeter had referred. He described the placenta as being liable to a very small number of diseases, and classed them under hypertrophy, atrophy, apoplexy, ossification, and hydatids, and especially insisted, together with Brachet, upon inflammation, a disease the existence of which Dr. Lee denied, as well as that of fatty degeneration. The reality of this latter affection was not a subject of conjecture, but was amply established by the cases he (Dr. Barnes) had submitted, and by the faithful delineations of the altered structures exhibited in Dr. Hassall's drawings. These would speak for themselves. So far from being willing to admit that the cases he had described were not examples of fatty degeneration, but, as Dr. Lee asserted, of some other affection, he was inclined to believe that many cases, described by authors as scirrhous placentæ, would, if they had been more carefully examined, have proved to be instances of fatty degeneration. In concluding, Dr. Barnes again acknowledged the interest evinced in his paper by the Society.

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MEDICAL SOCIETY OF LONDON.

Dr. Murphy, President, in the Chair.

FATAL INVERSION OF THE UTERUS.

Dr. E. Smith related the following case of fatal inversion of the uterus, with attached placenta, occurring under the management of a midwife immediately after delivery. The subject was 35 years of age, of somewhat large build, and of full habit, and was apparently more sensitive than females are in general. She had enjoyed a fair share of health, but was always disposed to complain, and her scrofulous temperament evinced the lack of a robust system. She was ill fitted to repel the influence of exhausting agents.

She was delivered of her second child at eleven p.m., on May 5, after a labour of less than the average suffering, and of only five hours' duration. Dr. Smith was called to see her at a quarter past eleven p.m.. and found a tumour of about ten inches in diameter, projecting from the external parts. The placenta was attached chiefly to the anterior part, but prolongations of it surrounded the whole tumour in such a manner, that a central cup-shaped concavity existed of two inches in diameter, and three-quarters of an inch in perpendicular depth. On examination, this tumour proved to be the inverted uterus, to which the placenta was still perfectly adherent. The funis was broken into two parts; that which was attached to the placenta being about eight inches in length, and the portion which was separated being about twelve inches in length. There did not appear to be more hæmorrhage than is usually observed when the placenta is detached and expelled in the ordinary mode. She was quite conscious, and not apparently aware of the existence of imminent danger, yet her pulse could only be felt at long intervals, and then only during two or three beats, which were not remarkably frequent. Messengers were sent to request the assistance of two neighbouring practitioners, and, in the mean time, Dr. Smith endeavoured to return the uterus, with the placenta still attached, as a preparatory step to the reduction of the inversion. The effort was ineffectual, and the anterior surface of the placenta becoming ruptured at one point, a considerable gush of blood followed. Additional medical assistance arrived in over five minutes after Dr. Smith had first seen the case, and it was determined to peel off the placenta first, and then to return the uterus. The first was effected by Mr. Lucas, without any further loss of blood, and the latter was also accomplished without much difficulty. The pulse was still almost imperceptible, but the mind was collected and calm. No noises were complained of, nor were there the slightest indications of faintness or spasm. Pure brandy was administered, in half-ounce doses, so frequently, that half a pint was exhibited in three hours, yet no improvement, of any but the most temporary character, was effected in the circulation. A drowsiness began to steal over the senses in about an hour after the womb was replaced, from which she could be aroused but with more and more effort as the progress of the case advanced; this the patient attributed, erroneously, perhaps, to the action of the brandy. At about one, a.m., a sharper state of the countenance became evident, and this increased so much, yet without any complaint whatever, that at from two to three, p.m., she had lost her own distinctive features. Dr. Smith frequently introduced his fingers within the patulous os uteri, and placed his hand upon the abdomen; he observed that the uterus remained tolerably contracted, and that at no time was there the slightest hæmorrhage. Finding that no benefit whatever had resulted from the administration of the brandy, he again requested the advice of Mr. Lucas at half-past two, a m., when it was determined to move the patient very carefully, but to the extent of relieving the discomfort of her position, and to administer ether. This was done, and the pulse seemed to gain in firmness and steadiness for about a quarter of an hour, but the dulness of the senses still continued. At the end of that period she suddenly appeared to become more exhausted, yet remained somewhat conscious; whilst endeavouring to swallow a small quantity of brandy deglutition failed, and she sank gradually in a few minutes. The *post-mortem* examination showed a healthy condition of all the organs of the chest and abdomen; but all were drained of blood. The heart and great vessels were empty. The uterus had been properly replaced and was empty, except from some slight remains of the placenta. The cavity was about five inches in the transverse, and eight inches in the longitudinal diameter. The tissue of the uterus was loose and flabby, and the walls at the fundus were fully half an inch in thickness. At the inquest Dr. Smith expressed his opinion as to the cause of death, that the patient had died from the shock upon the nervous system, induced partly by the loss of blood, and partly by the violent inversion of the uterus.

The points of interest in this case appear to be the following:—1st. A confirmation of the ordinary position of the placenta. 2ndly. The fact, that a bloodless condition of the whole system was induced by an amount of hæmorrhage which did not appear to any one present to be considerable, and without any other symptom than pulselessness. The drowsiness which was eventually induced, might, at least in some degree, be attributed to the alcohol. At any rate, this and the sharpened features more readily pointed to the nervous than to the circulating system. 3rdly. Considering that the symptoms were rather those indicating a shock than exhaustion from hæmorrhage, would it have been prudent to have so far suspended the administration of the brandy, as to administer ammonia, ether, or other nervous stimulants? 4thly. Was transfusion indicated? 5thly. Dr. Denman and Dr. Burns advise that the uterus, with the attached placenta, be returned. Dr. Merriman also gives the like advice; but he mentions an instance in which he first detached the placenta, and the patient did well. It is highly important that some definite rule should be laid down by the Profession; for, if it be judged best to detach the placenta, it will be injurious to lose time in endeavouring to return it; or if it be deemed proper to return the mass, it cannot be right to run the risk of alarming hæmorrhage by first detaching the placenta. 6thly. What direct evidence can be adduced to show guilty interference on the part of the midwife? Cases are recorded of inversion of the uterus having occurred from the mere dead weight of the attached placenta; also from distension of the alimentary canal, or from some sudden action of the abdominal muscles, and therefore blame does not, of necessity, attach to the attendant. It is true, that until the placenta is detached, the hand ought not to be for a long time apart from the womb, and, in cases where inversion has thus occurred, it has not been so complete as in this case; but yet the possibility of such an occurrence renders it imperative that direct evidence of a guilty interference or neglect should be established. The evidences in the case are—1. The admission of the midwife that she attempted to remove the placenta within a quarter of an hour after delivery. 2. A further admission that she did use some force, but that it was to a very slight extent. 3. The rupture of the funis. 4. The persistence of the uterine contraction after the uterus had been returned, and when that organ was almost bloodless and the system exhausted, is *prima facie* evidence that the inversion had not resulted from the absence of contraction. Still the link was wanting to show that the midwife had used improper force, and thus she escaped punishment.

FIBRINOUS DISEASE OF THE PLACENTA.

Dr. Ogier Ward exhibited a placenta taken from a patient aged thirty-nine. It was her eighth confinement, premature, between the sixth and seventh months. The feet, which presented, being cold and livid, as soon as they were extracted from the vagina, Dr. Ogier Ward tickled the soles, and by their retraction having ascertained the fœtus to be still alive, proceeded with the delivery. The child, a female, only gave signs of life by slight beating of the heart, not sufficient to propel the blood through the cord, which was left untied to relieve the congestion, which showed itself in the general lividity of the body. By inflating the lungs, and the other ordinary means, in about two hours respiration was established, but the heat of the infant could only be maintained by wrapping it in cotton wadding, and laying it close to the fire. It weighed two pounds one ounce, and lived eighteen hours. The mother had suffered very much during her pregnancy from vomiting. The placenta, being adherent, was removed with some difficulty. It was very small, with many nodules of lymph on its maternal surface, in amount and extent greater than the healthy structure. The fœtal surface was studded with semi-transparent tubercles along a portion of its edge. The cord was very thin, and only thirteen inches long; the capillaries of the condensed portions were filled with and surrounded by an opaque substance, which, upon drying, became white, resembling closely the ordinary appearance of ossific deposit, but without its rigidity; in the moist state, very few oil globules were seen in the fluid that flowed from the nodules. Dr. Ogier Ward remarked, that these deposits of lymph and ossific matter were extremely common—in fact, occurred in the majority of placentæ at the full period, and, according to his observations hitherto made, more frequently among the poor.

FRACTURE OF THE FEMUR.

Dr. Crisp exhibited a portion of the femur of a countryman which had been fractured by a wagon-wheel passing over the limb. The sufferer survived the accident about three months. On examining the injured thigh, in addition to the ordinary formation of callus,

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there was an arch of new bone extending from the upper to the lower portion of the fractured bone. He had not been able to find a similar specimen in any of the surgical museums.

RAMOLLISSEMENT OF THE BRAIN.

Mr. Barlow drew the attention of the Society to some points connected with ramollissement of the brain. He related the case of a man who was admitted into the Westminster Hospital under the care of Dr. H. Roe, with this affection well-marked. The man was made a patient in the hospital on the 13th Nov., 1848. He had a heavy expression, and complained of pain in the head, which was sometimes worse than at others; also of giddiness; and a difficulty of moving the right hand and fingers. His handwriting was like that of a patient with chorea, and occasionally he let things drop. His memory was defective, and soon began obviously to fail, and the processes of his reasoning faculties were altogether impaired. After five days, during which the symptoms progressed somewhat, he changed abruptly for the worse, and lay in a state of stupor. This was not uniform, and he could, at times, be aroused to passing consciousness. There was complete paralysis of the right side, the leg whereof could be readily excited to reflex actions. He began to swallow, and also to breathe with difficulty; but, occasionally, the swallowing and breathing seemed unembarrassed. The *oscillation* of the symptoms formed one of the most interesting features of the case; now there was consciousness; now almost absolute loss of it; any one who might have watched him superficially, or have judged of his condition by a single visit, would have been deceived respecting it. On the 22nd he could not be roused so as to know anything, and both swallowed and breathed with considerable difficulty. His paralysed side was lax, and never affected by any spasms save those caused reflexly; the opposite was almost continually agitated by aimless, restless acts of volition. The patient lingered until the 26th, and died in deep coma. On examination, there was found considerable opacity of the arachnoid, the vessels of which were more turgid and crowded than usual. But the main thing was a most marked and extensive softening of almost the entire left cerebral lobe. Small dots of blood were effused here and there throughout the softened brain. Some spots were of a pink or red hue; a yellow or yellowish tinge was seen nowhere. The inner portion of the brain was much more affected than the outer. The softening was extremely extensive and well marked. The author then remarked upon general and partial ramollissement; the former was often a *post-mortem* change, the latter was far more to be relied upon as the consequence of disease. The disease which produced the softened state should not merely be contemplated in its utmost ravages, but (so far as was possible) at that early time when, so far from interfering with the vital, it had just begun to influence the intellectual functions. The author then proceeded to comment on some symptoms of the case, the pain, the vertigo, the imperfection of motion, the paralysis, the reflex action, the difficult breathing and deglutition; the variability of important signs; the state of the mind throughout considered, and so forth; and dwelt, at length, on the absence of rigidity, a symptom upon which M. Lallemand had laid infinitely too much stress in the diagnosis of ramollissement. Whether or no much pain would attend this affection would depend on the acuteness, violence, and extent of inflammation, and on the age and temperament of the patient; slight and very gradual inflammatory action would produce but little; and the coma which sometimes attended the affection would, of course, altogether preclude it. In those cases where the parts died, as it were, not violently, but lost their coherence from the effect of atrophy, pain was not to be expected, as in those instances where the inflammatory action strongly raged. It was to be considered, too, in reference to the increase of sensibility, whether the ramollissement was pure and uncomplicated, or combined with other affections, arachnitis, for instance. The pain of the disease should also be compared with that which happened under various circumstances; it was by contrasting symptoms that we found out their nature. The subject of vertigo was one of great moment in reference to cerebral affections in general; it was well marked in the present case: now it happened from cerebral anæmia, now from dangerous fulness, and might be a threatening of apoplexy; now it was a mere sign of functional, now a most clear and alarming evidence of organic, disease. It was one of the best-marked and most constant symptoms in the instance of an enormous aneurism at the base of the brain, which had been laid before the Pathological Society very recently by Dr. Roe. The way in which volition was affected in the case detailed, was extremely well worthy of remark. By watching this function, the true state of the mind might almost be arrived at, and the progress of the case estimated aright. What very different features did it present at the beginning, the middle course, and the end of the disease. As it became more influenced, there was an increase of the weakness of mind, whilst, with the confirmed hemiplegia came a state of all but perfect annihilation of the cerebral functions and danger most imminent. The variation in the symptoms towards the close of the case was one of the most remarkable features; life did not ebb gradually away; there were from time to time partial recoveries. The same thing was to be noted in various head affections; the sensation, the will, even the vital functions, most strangely differed during their course. But this led to the mention of that striking and complete recovery of consciousness which sometimes happened to the profoundly comatose just before they died. How was it to be explained? Was it that from some change in the cerebral circulation the compression of the brain became less for awhile? The author then referred to the extreme difficulty of accurately investigating the condition of the faculties in cerebral affections, and to the unsatisfactory statements made by writers of their being unimpaired in some instances, wherein clearly they had examined them (if such a word could be used) most inadequately and superficially. The same remarks applied to the special senses, and the mode wherein they were occasionally observed. But in all inquiries of this nature, how much depended on the patient himself! He might trace accurately the changes which had come over him, and so paint them, that the medical historian, in order to be graphic, had simply to transfer the narrative to his pages. The absence of rigidity or contraction of the limbs in the example before them, was well worth noticing, because of the stress which had been laid by some writers on that form of muscular action as a sign of ramollissement. It was anything but a proof of that process; although the frequency wherewith it happened in instances of that affection made its consideration, in reference to the diagnosis of it, very important. Taken in reference to cerebral diseases in general, it was of great consequence to observe it well. It might arise—1st. From physical irritation of the spinal cord; 2ndly. From the influence of emotion, as might be ascertained by carefully examining the body under various states. 3rdly, from an affection of the muscles themselves, being the manifestation, probably, of unexhausted irritability. Observations of Dr. Marshall Hall and M. Flourens were cited, to illustrate some points of great interest in relation to tonic muscular action. The author lastly referred to the subject of fatty degeneration in its relations to ramollissement and apoplexy. A case had been admitted into the Westminster Hospital, under the care of Dr. Kingston, of a man aged 41, who died of an immense sanguineous effusion which chiefly occupied the left ventricle of the brain and the contiguous cerebral substance. At Mr. Barlow's request, the smaller vessels of the softened substance had been examined microscopically by Dr. C. Shearman, who found them in that state of fatty degeneration which Mr. Paget had not long ago described and figured in the *Medical Gazette*. The degeneration of vessels of this minute size was of every consequence; there could hardly be a doubt that it led both to ramollissement and apoplectic effusion. After referring to some observations of Dr. Williams and Dr. Quain, who had confirmed the views of Mr. Canton in reference to the frequent co-existence of the arcus senilis, (in itself a most innocent form of fatty degeneration,) and the fatty change of the heart, the author expressed his conviction, that the arcus would be found eventually of great value in attempting the true inference from such symptoms as indicated ramollissement, or threatened apoplexy, and concluded his observations by directing attention to conditions of the mind, as being in various instances more or less intimately related to the production of cerebral disease.

MEDICAL NEWS.

ROYAL COLLEGE OF SURGEONS.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 23rd inst.:—

COUCH, JAMES, Swansea, South Wales.
KINGSFORD, CHARLES DUDLEY, Wellington-street, Southwark.
ODELL, THOMAS, London.
COCQ, JAMES JOSEPH ROOSMALE, Ceylon.
SHORE, WILLIAM JAMES, Bangor, North Wales.
STRETTON, WILLIAM HARRIS, Leicester.
WEBSTER, GEORGE EDWARD, Cambridge.

COLLEGIATE ELECTIONS.—In pursuance of the promise which appeared in the *Medical Times* of the 13th inst., when alluding to the resignation of Mr. Vincent, to give, in chronological order, the names of twenty candidates in rotation, for a seat in the Council of

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the Royal College of Surgeons, we subjoin the following, which our readers may depend on being correct. Commencing from the honoured name of Francis Kiernan, the gentleman last elected on the Council, we come to one equally and deservedly well known :—

1. George Gulliver, of the Royal Horse Guards Blue, residing at Brompton. Mr. Gulliver is the author of Notes and Appendix to the English edition of Gerber's Anatomy; Introduction and Notes to Hewson's Works; contributor of several important papers to the journals, and particularly on the Blood, Minute Anatomy, &c.

2. Edward William Tuson, Esq., F.R.S., Harley-street, author of "Myology," illustrated by dissected plates; the "Dissector's Guide," etc.

3. Richard Owen, Esq., F.R.S. The Hunterian Professor of the Royal College of Surgeons is too well known to require further comment; we will merely add, that a rumour is in circulation, that it is not his intention to be put in nomination, or rather, if proposed by his friends, to decline the honour.

4. William Coulson, Esq., Frederick-place, Old Jewry, Senior Surgeon to St. Mary's and the Magdalen Hospitals, Consulting Surgeon to the German and City of London Lying-in Hospitals, Author of "Deformities of the Chest and Spine," on "Diseases of the Hip joint," of the "Bladder and Prostate Gland," translator of "Blumenbach's Comparative Anatomy," etc. etc.

5. John Dalrymple, Esq., F.R.S., Grosvenor-street, Consulting Surgeon to the Royal Ophthalmic Hospital, author of the "Anatomy and Pathology of the Eye."

6. Richard Partridge, Esq., F.R.S., New-street, Spring-gardens, Surgeon to King's College Hospital, Professor of Anatomy in King's College.

7. John Hilton, Esq., F.R.S., New Broad-street, Surgeon to Guy's Hospital and Lecturer on Anatomy, author of valuable papers in the Guy's Hospital Reports and "Medical and Chirurgical Transactions."

8. Richard Quain, Esq., F.R.S., Keppel-street, Russell-square, Surgeon to the University College Hospital, author of the "Anatomy of the Arteries," etc.

9. Edward Cock, Esq., St. Thomas-street, Southwark, Surgeon to Guy's Hospital, author of "Practical Anatomy of the Head, Neck, and Chest," etc., and contributor of several papers to the various journals.

10. Samuel Solly, Esq., F.R.S., St. Helen's-place, Assistant-Surgeon and Lecturer on Clinical Surgery at St. Thomas's Hospital, author of an excellent work "On the Human Brain," and an "Analysis of Muller on the Glands."

11. Thomas Tatum, Esq., George-street, Hanover-square, Surgeon to St. George's Hospital, and Lecturer on Surgery.

12. Alexander Shaw, Esq., Henrietta-street, Cavendish-square, Surgeon to and Lecturer on Surgery at Middlesex Hospital, author of "Narrative of the Discoveries in the Nervous System," etc.

13. John Adam, Esq., New Broad-street. 14. Alfred Hamilton, Esq., Broad-street Buildings. 15. Samuel Armstrong Lane, Esq., Grosvenor-place. 16. John Avery, Esq., Savile-row. 17. Frederick Dover, Esq., Church-terrace, Kentish-town. 18. John Hobbs, Esq., Southampton-row. 19. James Farish, Esq., Lancaster-place, Waterloo-bridge. 20. William Pennington, Esq., Montague-place, Russell-square. We have not added the qualifications of the latter gentlemen, as there is very little doubt but that two from the first four in the above list will be selected by the Fellows as their representative in the Council. It is understood that Mr. John Bishop, F.R.S., is the only retiring member of the Council by the regulations of the Charter; but this gentleman is eligible for re-election, and there is no doubt will be returned again as a member of Council.

NEW EXAMINER.—Mr. James Luke, Surgeon to the London Hospital, was elected by the Council of the Royal College of Surgeons, on the 23rd instant, as examiner at their Board, in the vacancy occasioned by the resignation of John Painter Vincent, Esq., who has been compelled by severe and continued indisposition to resign all his college and hospital appointments.

RESOLUTIONS UNANIMOUSLY ADOPTED BY THE ROYAL COLLEGE OF PHYSICIANS OF EDINBURGH, REGARDING PRACTITIONERS OF HOMŒOPATHY.—At Edinburgh, and within the College Hall there, the 9th day of May, 1851, an extraordinary meeting of the Royal College was held, pursuant to a resolution agreed to at the last quarterly meeting, and of which extraordinary meeting due notice was given. The President in the chair. The following resolutions were moved, seconded, and unanimously agreed to:—

1. That the Royal College of Physicians of Edinburgh did, several years ago, publicly express its opinion of Homœopathy and Homœopathic Practitioners, by peremptorily declining to admit into its body a candidate for its fellowship who belonged to that denomination; and, consequently, that no fellow of the College can possibly be ignorant of the light in which all those who practise Homœopathy are regarded by the College.

2. The College regrets that, notwithstanding this decided expression of its opinion, more than one of its fellows, after being admitted in a different character, have endangered the reputation of the College by becoming homœopathic practitioners; and the College expresses an earnest hope that these fellows, seeing they have thus virtually separated themselves from the College, will spontaneously sever their further connexion with an institution which repudiates them, and from which they can derive, as merely nominal fellows, nothing else than a false position and a spurious credit.

3. The College feels the more bound thus to express its opinion, seeing that those fellows who have become homœopathists, and any other medical practitioners who follow Homœopathy, must necessarily be aliens to the other fellows, and to the Profession at large; inasmuch as no fellow of this College, or any other physician can, by any possibility, without derogating from his own honour, and from the honour of the Profession, meet practitioners of Homœopathy in consultation, or co-operate with them in the other common duties of professional life.

4. That although the College has not thought it expedient hitherto to take any active steps for disclaiming those fellows who have become homœopathic practitioners subsequently to their admission to the College, nevertheless, since it has the power of dealing summarily with those who act in a manner so unbecoming the character of a physician, it reserves its right to exercise that power when it shall be so advised.

Signed in name and by authority of the College,
J. Y. SIMPSON, *President*.

MR. RICHARD PHILLIPS, F.R.S. L. AND E.—This distinguished chemist died at Camberwell on the 11th of May, in his 73rd year. Mr. Phillips was successively the lecturer on Chemistry at the London Hospital, the Royal Military College, Sandhurst, Grainger's Medical School, and St. Thomas's Hospital. In 1839 he was appointed Curator to the Museum of Practical Geology, which office he held at his death. For many years he was connected with the scientific Press, both as an editor and a contributor of original papers. His chief work is a translation of the Pharmacopœia Londinensis, both of 1824 and of 1836, enriched with copious notes. On the translation of the Pharmacopœia recently issued, he was engaged a few evenings before his death, which work is already in the Press, and its publication may shortly be looked for.

TESTIMONIAL TO MR. CLARKE.—The presentation of an inkstand and plate to J. F. Clarke, Esq., subscribed for by about 160 members of the Profession, took place on the 22nd inst. Dr. Webster having stated the circumstance which had led to this manifestation, Dr Clutterbuck addressed Mr. Clarke, and presented the testimonial, which bore the following inscription:—"To J. F. Clarke, Esq., Vice-President of the Medical Society of London. This inkstand, together with a service of plate, was presented by 160 of his professional brethren, as a mark of their esteem for his private worth, and the faithful manner in which the numerous valuable reports were published in the *Lancet* during a long series of years, whereby he has advanced the interests of the Profession, and elevated the medical and surgical literature of England." Mr. Clarke responded in grateful and eloquent terms to the address of Dr. Clutterbuck, and left the company to imagine the feelings under which he addressed them on receiving such a testimonial from the most celebrated men of the medical Profession. In the discharge of his arduous duties, he had always endeavoured to conciliate parties, but he had never for a moment compromised his independence in conveying to the public and the world at large impartial statements of cases which he had to communicate. A variety of speeches followed, thanks being voted to Dr. Clutterbuck, Dr. Webster, etc.

THE DINNER to celebrate the birth-day of Sir Charles Mansfield Clarke, Bart., took place at Willis's Great Room, on Tuesday, the 27th inst., and was attended by upwards of 150 Medical Practitioners from all parts of the kingdom, who manifested the cordial admiration and affectionate regard they entertained towards their excellent friend by the enthusiastic greetings with which they received the toast of Sir Charles's health when proposed by their distinguished chairman, Sir Benjamin C. Brodie, Bart. Sir H. Bishop presided at the piano-forte; and the songs, glees, etc., sung by Miss M. Williams, Miss Thornton, Mr. Benson, Mr. Leffler, and Mr. Laud produced the most brilliant effect. Mr. Benson sang a song written for the occasion by Dr. Bellefey, with great taste and power. We are happy to say Sir Charles was in capital health and spirits.

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UNIVERSITY OF OXFORD.—It is stated that the erection, so long contemplated, of a new Museum of Science, is now decided upon, and that the site is to be in the fine open space of ground called the Parks, near Wadham College.

UNIVERSITY COLLEGE HOSPITAL.—At the dinner at the London Tavern, on the 15th instant, on behalf of this Institution, 1010*l.* were subscribed towards paying the debt of 3000*l.*, which still hampered the hospital authorities, and cramped their usefulness.

UNIVERSITY COLLEGE HOSPITAL.—A memorial from the authorities of this Institution has been presented to the Court of Common Council, praying for a grant to its funds. It was presented by Mr. R. Taylor, who warmly advocated its cause; and seconded by Alderman Hunter. Mr. H. L. Taylor and Mr. Young opposed the Petition, which was ultimately referred to the Coal, Corn, and Finance Committee to report upon.

ST. MARY'S HOSPITAL.—The three Assistant-Physicians chosen to this Institution are:—Charles Handfield Jones, M.B., F.R.S.; W. O. Markham, M.D.; E. H. Sieveking, M.D.; and the three Assistant-Surgeons:—J. R. Lane, Esq., F.R.C.S.; Henry Smith, Esq., F.R.C.S.; Henry Haynes Walton, Esq., F.R.C.S.

CITY OF LONDON HOSPITAL FOR DISEASES OF THE CHEST.—His Royal Highness Prince Albert will lay the first stone of this building on the 25th instant, when the Earl of Carlisle, President of the Institution, and other noblemen and gentlemen, are expected to be present. The site of the proposed hospital comprises an extensive area of ground adjacent to the principal entrance to Victoria-park.

THE SECRETARY OF STATE FOR THE HOME DEPARTMENT, on Friday last, received numerous and influential Deputations from the College of Physicians and the National Institute of Medicine and Surgery, on the subject of Medical Reform. Among the gentlemen comprising the Deputations were Dr. Paris, as President of the College of Physicians; Dr. Hawkins, Dr. Mayo, Dr. Barker, Mr. Wyld, M.P.; Mr. Clifton, as President of the National Institute; Mr. Dunn, Dr. G. Webster, Mr. Fuller, Mr. Stedman, Mr. Martin, etc. etc.

MR. COWIE, formerly a surgeon on board of whaling vessels, goes out in the same capacity in the Prince Albert, in the new expedition in search of Sir John Franklin.

BROWNE'S CLASSIFICATION OF MANKIND, according to the hair and wool of their heads, and a scale of diameters, based upon actual measurements with the microscope and micrometer. (See our review at page 351.)

1ST CLASS, including the cylindrical and cylindroidal. 1st Variety, cylindrical.

	Diameter.	Shape.
1st. The hair of the head of a Choctaw N. Am. Indian, (Mobile), diameter 1-277 of an inch, shape cylindrical.		
2nd. Big-water, an Indian chief, killed in Texas	250	cylindrical.
3rd. A Calapeos N. Am. Indian	281	"
4th. From a head brought from the Temple of the Sun, near Lima	364	"
5th. From Pachamack, Peru	312	"
6th. From Africa	338	"
7th. From Pisco	416	"
8th. Aztec (Mexican) from Mexico	364	"
9th	364	"
10th. From Brazil, (interior of,)	281	"

2nd Variety, cylindroidal, or less than 1-6th greater than cylindrical:

11th. The hair of the head of a Choctaw female of 25 years	364 by 390	"
12th. The hair of the head of a Choctaw female of 15 years	297 by 312	"
13th. Chinese, Teow Chaoong	297 by 364	"

2ND CLASS, oval and ovoidal, the latter including the lesser ovoidal and the greater ovoidal:

1st. Variety, Oval:—

1st. The hair of the head of His Excellency General G. Washington	312 by 500	oval.
2nd. The hair of the head of Andrew Jackson	242 by 364	"
3rd. William F. Van Amringe, Esq.	250 by 364	"

2nd Variety, lesser ovoidal:—

1st. The hair of the Hon. J. B. Gibson, C. J. of Penn.	237 by 312	less ovoidal.
2nd. The hair of the Hon. Jn. Sergeant	297 by 364	"
3rd. Professor Samuel S. Halderman	364 by 437	"

3rd Variety, greater ovoidal:—

1st. The hair of Prof. B. Silliman, (Am.)	273 by 364	greater.
2nd. Count Wass, (Hungarian)	281 by 416	"
3rd. Napoleon Bonaparte, (Corsican)	338 by 458	"

3rd Class, eccentrically elliptical and eccentrically elliptoidal:—

1st. The wool of the head of the Bushman boy, (Hottentot)	312 by 356	eccentrically elliptical.
2nd. Congo Billy (African)	312 by 970	"
3rd. Malay, from the island of Fidgi	137 by 416	"

HYBRIDS.

1st. The pile of an American mulatto—father white, mother black.		
Some filaments 247—364	.....	lesser ovoidal.
" " 416—562	.....	oval.
" " 266—625	..	eccentrically elliptical.

HYBRIDS.

2nd. A mongrel, Penobscot Indian and white.		
Some filaments 281	.....	cylindrical.
" " 225 by 312	.....	oval.
3rd. Indian River mongrel, originally Indian and white, but bred towards the white	312 by 458	greater ovoidal.
4th. A mongrel Buffalo Indian and negro, (Aurora)		
Some filaments 250 by 416	..	eccentrically elliptical.
" " 281 by 461	..	" "
" " 364 by 390	.....	cylindroidal.
5th. A mongrel Choctaw Indian squaw and white.		
Some filaments 237	.....	cylindrical.
" " 212 by 312	.....	greater ovoidal.
6th. Quadroon of Louisiana, white and mulatto	231 by 377	eccentrically elliptical.
7th. Quadroon of Philadelphia, father white, mother mulatto.		
Some filaments 437 by 625	.....	greater ovoidal.
" " 364 by 500	.....	"
8th. Double hybrid, Hinton, father white, mother the issue of an Indian and negress.		
Some filaments 312	.....	cylindrical.
" " 281 by 416	.....	greater ovoidal.
" " 250 by 500	..	eccentrically elliptical.

TO CORRESPONDENTS.

Hypochondriac has our warmest sympathy. Let him try composition, even without the intention of printing. It is a wonderful dietetic, and one in which every man, now-a-days, may indulge. Be assured, there is no readier or better means of getting rid of painful impressions or torturing feelings than by giving them expression, and reducing them to writing. The mind is thus relieved from present, and fortified against future, pangs. As for the constant contemplation of death, that is a false philosophy. True philosophy is the wisdom of life, for which there is no death.

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A. B. C.—It is a popular remedy, where ague abounds, to place a patient in the cold stage in bed with a healthy person. About this practice there is a very old Scotch song, (our Correspondent may quote it as an authority,) which says:—

"The gudewife's dochter fell in a fever;
Scroggam;
The priest o' the parish fell in anither:
Sing, auld cowl, lay ye down by me,
Scroggam, my dearie, Ruffum.
"They laid the twa in the bed thegither;
Scroggam;
That the heat o' the tane might cool the tither:
Sing, auld cowl, lay ye down by me,
Scroggam, my dearie, Ruffum."

[To the Editor of the Medical Times.]

SIR,—I have so often failed in my endeavours to mount fresh animal and vegetable substances for the microscope, that I am induced to apply to you for advice. Yours, A YOUNG MICROSCOPIST.

[Mr. Deane recommends, in preference to the Canada Balsam and other fluids, the following:—Gelatine, ʒi.; water, ʒiv.; honey, ʒiv.; rectified spirits, ʒss.; kreosote, 6 drops. The gelatine is to be soaked in water until soft; the honey is to be then added, boiling, to the gelatine, and again boiled with it; when cool, but still fluid, add the spirit and kreosote, previously mixed together, and filter through fine flannel. When cold this forms a stiff jelly, which becomes fluid on being warm.

Studens.—Reason cannot do everything. If it could we should have neither the faculty of feeling nor of imagination.

Several remarkable cases of injury of the facial nerve, similar to that alluded to by our Correspondent, and which we shall be glad to receive, have been related by Percival and others, in the "Med. Chir. Transactions," Sir Charles Bell, Mr. John Shaw, Dr. Christison, Dr. William Gregory, and others.

A. B. is wrong. A man of genius is a bad dissembler, and a man of talent a good one; because in the former the instinctive impulses predominate, in the latter the rational.

O. P. Q.—We cannot reply to such inquiries. Let, however, our Correspondent remember that Nature is a glutton in nothing, and "uses all gently."

"Gross riot treasures up a wealthy fund
Of plagues; but more immedicable ills
Attend the lean extreme."

A Governor of the Royal Free Hospital.—We may reply with Alice in the play:—"We never said it was *possible*—we only said it was *true*."

A Visiter to the Exhibition.—We cannot suppose that the physician in question has placed near his little invention pamphlets intended to be carried away by spectators, and enlightening them as to his qualifications and address. We shall look to it.

A Juryman.—We believe it to be an error that surgeons and butchers may be challenged as jurymen. We should be glad to know the origin of the myth, if such it be. It is true that Butler says—but he was no authority,—

"As the law does think it fit,
No butchers shall on juries sit."

German.—We have given all Kolliker wrote; we could do no more.

Juvenis.—Small-pox and scarlet fever.

Anti-Humbug.—We refrain from comments on the case till the whole of the facts are before the Profession. We cannot believe that a man occupying the distinguished position of the gentleman in question, wittingly met a homœopathist in consultation. Our opinion is fixed. No physician or surgeon ought so to meet a homœopathist.

One who does not Envy.—

"Time in his mantle's sunniest fold,
The babe enrolled."

In other words, "He was born with a silver spoon in his mouth," and, under such circumstances, a minimum dose of knowledge serves to insure a maximum amount of success.

Scribe.—Write again, and if the party refuse redress, we will see that justice is done, or pillory the offender.

Mr. Johnson.—Numbers are at once the most useful and the most dangerous of weapons. Anything may be proved by the aid of figures. To use them is very hard, to abuse them the most easy of occupations. Let Mr. J. study Dr. Taylor's papers on the treatment of Pericarditis, published not long since in our own Journal.

A Surgeon.—Apply to Dr. Southwood Smith. He is the medical member of the Board.

A Young Subscriber.—Don't be in haste to publish your views on the point. Wait till further observations have confirmed or refuted your present opinion. A man is not justified in publishing startling generalizations, founded on a few imperfectly observed facts. Should time and other men's long labours prove him correct, it is true he may reap some credit from the uninitiated; but should they, on the other hand, detect his errors, then not only are his plumes removed, but wise men henceforth regard his assertions with an incredulous smile.

A Young Chemist.—Mr. Graham's Elements. We have been informed, that the remaining part will be ere long forthcoming.

A Student of St. ——.—We cannot interfere unless our Correspondent forward his card for our satisfaction.

A Pupil.—1. Sesquioxide of Chromium. 2. Sesquioxide of Iron. 3. Sesquioxide of Manganese.

Acarus.—The itch insect is said to die more rapidly in a solution of iodide of potassium than in any other fluid.

Mr. James.—Hope is, under the circumstances, the best tonic. Administer the remedy.

Juvenis.—1. Horace, 1st Satire. 2. Pope.

A Subscriber.—We are not divines. Our mission is to preach physic, not faith. Ne sutor ultra crepidam. Would that the clergy who dabble in medicine were of our opinion. But for divines, mesmerism, homœopathy, and such like lying spirits, would have been long since laid in the bottomless pit of oblivion.

An Assistant.—It is too bad; can our Correspondent point out a remedy? We would willingly aid in the good work, but must first see our way clear in the matter. It is time wasted to argue a question when no result can be obtained.

Homo.—We do not believe one word of it. The rumour had reached us before we received the letter of Home.

Juvenis should master the Linnæan system of Botany before he commences the natural.

Mr. Forbes' case of aneurism of the descending aorta shall have early insertion. It has been some time in our possession.

Mr. Slight's request will be attended to.

Mr. Gomperts is thanked for his civility.

We do not approve of Correspondents alternating their communications between ourselves and our contemporaries. "How happy could I be with either!" may be very true, and very delightful, as regards them, but it does not suit us.

Chaucer is informed that nearly every surgeon in London sees patients gratuitously in the morning.

Mr. Bowman's communication reached us after the Journal was made up.

Dr. Burrows' Clinical Lecture is in print. The proofs did not reach us in time for insertion this week.

Mr. Wilde's Paper, "Practical Observations on Diseases of the Ear," is also in type, but we await the Author's proofs.

Mr. Hickson.—We have not room to reprint the circular concerning Mr. Hawker and the Provident Dispensary; and, while Mr. Hawker himself remains silent, we see no reason to publish Mr. Hickson's letter.

Dr. Knox's Paper is in the hands of the Printer.

On the subject of the Medical Charities Bill, our attention has been called to some correspondence in the Irish newspapers on the part of Dr. Waters, which we can only notice by referring the Secretary of the Irish Dispensary Physicians to the articles which have appeared in the "Medical Times" on the subject. It has been most fully discussed in our columns.

[To the Editor of the Medical Times.]

SIR,—I am dying of curiosity to know the truth of a rumour prevalent in our neighbourhood. Perhaps you can assuage the agonies of suspense. Is it true that the National Institute is dissolved,—evaporated into thin air,—and "like the baseless fabric of a vision left not a wreck behind?" I assure you that this report is credited by my medical neighbours, more especially as some very lugubrious countenances have been seen on the shady sides of Oxford-street and the Edgware-road, looking the very picture of that "hope deferred" which "maketh the heart sick." How are the mighty fallen! Pray, Sir, forgive my curiosity; but as you are in the secret, do let us know before next Subscription-day comes round. I am, &c.

M.R.C.S.E.

[We believe that this report is well founded. We do not know that the Institute has actually committed a *felo de se*, or that, following the example of their Journal, it is merely a case of suspended animation. In either case it is as good as dead—the only shape, in fact, in which good could come of it.]

COMMUNICATIONS have been received from—

A YOUNG MICROSCOPIST; A. B. C.; STUDENS; HYPOCHONDRIAC; Mr. JONES, of Folkestone; A. B.; A GOVERNOR OF THE ROYAL FREE HOSPITAL; O. P. Q.; A VISITER TO THE EXHIBITION; A JURYMAN; Dr. RIGBY, of Berkeley-square; A SURGEON IN THE FENS; JUVENIS; Mr. JOHNSON; Dr. BURNETT, of Alton; A YOUNG SUBSCRIBER; A YOUNG CHEMIST; STUDENT OF ST. ——; A PUPIL; ACARUS; Mr. JAMES, of Dover; HOMO; AN ASSISTANT; A SUBSCRIBER; GERMAN; ANTI-HUMBUG; ONE WHO DOES NOT ENVY; Dr. KNOX; Dr. CORMACK, of Putney; Professor LIZARS, of Edinburgh; Dr. JOHN TAYLOR, of Huddersfield; Dr. RIDGE, of Putney; Mr. BORLASE CHILDS, of the Metropolitan Free Hospital, and Finsbury-place; Mr. LIONEL BEALE, of King's College Hospital; INQUISITOR; Professor GREGORY, M.D., of Edinburgh; Dr. WILLIAMS, of Upper Clifton-street, Finsbury; CHAUCER; Dr. KENNEDY, of Dublin; F.R.M.C.S.; Dr. KING, of Savile-row; Mr. SMITH, of St. Mary Cray, Kent; VERITAS; Mr. HICKSON, of Wetherby-street; Mr. BOWMAN, of King's College Hospital and Clifford-street; M.R.C.S.E.

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ORIGINAL LECTURES.

LECTURES ON HISTOLOGY.

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS, LONDON.

By J. T. QUEKETT, Esq.,
Assistant-Conservator of the Hunterian Museum.

(Continued from page 557.)

CARTILAGE.

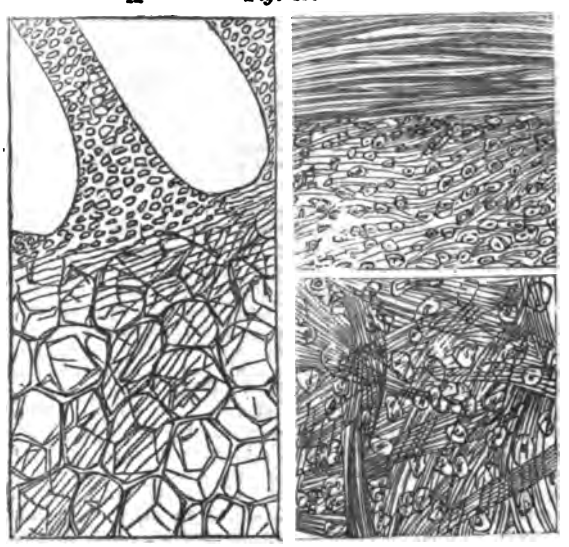
I now show you, as a specimen of simple cartilage, the ear of an ordinary mouse, the central portion of which consists of a series of hexagonal cells arranged in layers one over the other, so that in every other respect, except in the size of the cells, the structure resembles that of a transverse section of the pith of a plant; this preparation, however, has been before alluded to, and represented in *Fig.* 39 A.

I next send round for your inspection a portion of the thin cartilage of the ear of one of our long-eared bats; you will notice that the cartilage cells are of smaller size, but have thicker walls than those of the mouse, and that, in one part, they only occur in a single layer; in others two or more layers are superimposed, and, in nearly every cell, a central nucleus may be observed. This specimen, like the preceding, has been before described, and is represented in *Fig.* 39 B.

I now show you a transverse section of the *chorda dorsalis* of a lamprey, which, as represented in *Fig.* 44, A, consists entirely of large cells of a more or less oval figure, and arranged somewhat in the form of radii. Some parts of this *chorda dorsalis*, especially those near the centre, are soft and pulpy; in such the cells can be separated from each other, but, on the circumference, the cells are more compressed and very firmly adherent together.

These large cells are not confined to the *chorda dorsalis* of cartilaginous fishes, but are found in the embryos both of osseous fishes, and in tadpoles of batrachians. In *Fig.* 43, A B, is shown a portion of the *chorda dorsalis* of a trout three days old. At the lower part, B, the large cells occur; this is the *chorda dorsalis*, and such cells do not become ossified; but above them, at A, is seen a rudimentary spine, composed of cells of much smaller size, which are characteristic of cartilage that will eventually become ossified. At this early stage, then, we can distinguish between permanent and transitional cartilage.

Fig. 43.



Cartilage is sometimes found in large masses, in the form of tumours, termed *Enchondroma* by Müller; here is a specimen which weighed 144 ounces; it was removed by Hunter and the patient recovered. Here is an example of several enchondromatous tumours, developed from the bones of the fingers, and another from those of the pelvis; all these exhibit cells, like those of cartilage, but one of them, in addition, has cells of such peculiar figure, which so nearly resemble the lacunæ of bone, that it will be best to defer its consideration till some more of the ordinary forms of cartilage have been shown you.

I will now exhibit a portion of the cartilage of the cuttle-fish before described, in page 557, and represented in *Fig.* 42 C, in which you will be able to discern cells of peculiar figure, like elongated nuclei, imbedded in a structureless intercellular substance; in this next specimen, from the head of a large ray, cells more distinctly nucleated may be observed; these occur in bundles or groups, and the matrix in which they are imbedded has a slightly granular appearance.

I now show you another section from the same ray, in which the granular appearance is more evident; this portion of the cartilage, as will hereafter be alluded to, is becoming ossified, and the granules you now see are those of ossific matter.

In reptiles the cartilage cells are larger than in fishes, and in the siren they attain their greatest size; they appear to be smallest in the crocodilia. In birds there is scarcely any cartilage at all, except that entering into the formation of joints; for in these animals, at a very early period of growth, all the cartilage is converted into bone.

Amongst the mammalia we have large cells, and a firm structureless intercellular substance; the largest cells, according to my observations, being those met with in the elephant. In some cases the intercellular substance is of a fibrous nature, and if fine sections be made as from the cartilage of the ear of the rabbit or dog, the cells can be taken out of the meshes formed by the fibres. I now show you a vertical section of the cartilage of the auricle of the human ear, the cells of which are in some parts uniform in size, and arranged closely together; in others the intercellular substance is fibrous, and occasionally some of the cells, as I have mentioned, when speaking of the ear of the rabbit, can be detached from the fibrous net-work surrounding them. For the sake of comparison, I will next exhibit a vertical section of the costal cartilage of the human subject, in which the cells are few and far between, but the matrix is most abundant; the cells are of large size, and are principally arranged in rows; their nuclei are clear and transparent, and the matrix minutely granular.

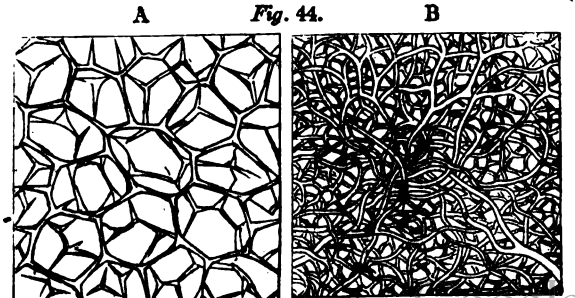
I will now proceed to describe the mode in which this permanent form of cartilage is supplied with blood.

As before stated, the cartilage is invested with a fine shiny membrane termed *perichondrium;* this supports the vessels, and is prolonged with them into the interior of all the thicker cartilages; the distribution of the vessels is very like that of areolar tissue.

In this specimen from the ear of the rabbit, the vessels are of large size, and each artery is accompanied by two veins, many of them being even perceptible to the naked eye; but they are not very numerous in any one part.

I next show you a portion of the cartilage of the auricle of the human ear, and in this I have discovered that the vessels on the outer surface are both more numerous and larger than on the inner. In the first specimen, which has its outer surface uppermost, the vessels are exceedingly large and tortuous, but in arrangement, as shown in *Fig.* 44, B, they differ from those of areolar tissue. In the second, which has its inner surface uppermost, the vessels have the same arrangement, but it may be readily seen that their size and number are both much diminished. These preparations were taken from the most vascular portions of the cartilage, but in those parts which have a less amount of vascularity, the arrangement of the vessels is precisely that of areolar tissue.

Fig. 44.



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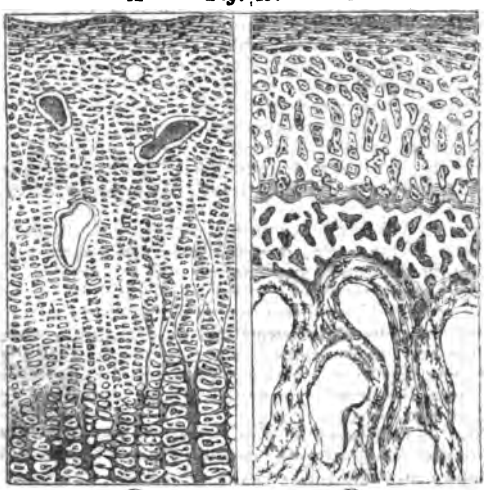
Having now described to you the principal forms of cartilage known as the membraniform and permanent, I pass on to notice that variety of permanent cartilage which, from its always entering into the formation of joints, is known as the *Articular*. This differs in its structure in the young and in the adult animal; it is this cartilage which, in the former condition, not only is supplied with blood-vessels, but which, on its attached surface, is always being converted into bone. If a vertical section of fœtal cartilage be examined, that part nearest the articular surface, as shown in *Fig.* 45, A, will exhibit numerous small cartilage cells, arranged without much order, and the nucleus of each occupying its whole diameter. As we proceed towards the attached surface the cartilage cells begin to be arranged in parallel rows, and the distance between the nucleus and cell-wall becomes much greater; and last of all, close to the attached surface B, we find spicula, or lines projecting between the parallel rows, these being sections of the walls of tubes of newly-formed bone, which, when fully formed, are cylinders enclosing each a column of large cartilage cells. In many sections of articular cartilage, as in that which I now show you, (*Fig.* 45, A,) taken from a young wolf, there are holes through which blood-vessels pass to nourish it; these are indicated by the three oval spots.

A *Fig.* 45. C



B D

In adult mammalian articular cartilage, as represented in *Fig.* 45, C D, the arrangement of the cells is very peculiar; the cartilage is separated from the bone by a layer of variable thickness and of white colour, which contains bone-cells three or four times as large as those of ordinary bone; this is the non-vascular lamella first described by Mr. Toynbee, the lower portion of this lamella (F) is connected to the bone of the shaft; the upper is more or less tuberculated for the attachment of the cartilage. The cells in the lowest layer of cartilage (E), or those immediately above the lamella, are arranged in columns following the direction of the shaft of the bone; as we proceed towards the articular surface, the columns become smaller, more numerous, and their direction is changed, so that they are now at right angles to the direction of the shaft. Immediately on the articular edge of the section (C), the cells are so much flattened as to present the appearance of epithelium cells, and the intercellular substance, or matrix of the cartilage, assumes a fibrous appearance. In such cartilage there are no blood-vessels, those from the shaft ending in loops as soon as they reach the non-vascular lamella. Such is a brief outline of articular cartilage in young and adult mammalian animals; there are, however, some peculiarities in that of fishes, reptiles, and birds that here demand attention.

In fishes, as in this vertical section from the jaw of a conger eel, the cartilage cells are small in size and very few in number, and arranged without much order in a distinctly fibrous matrix, the fibres following the direction of the shaft of the bone. Upon the articular surface, however, the cartilage cells are of minute size, and their arrangement is in parallel rows; but they are in such abundance as to obscure all trace of fibres.

In reptiles, and the first specimen I take is from the tortoise, the cartilage on the articular surface is distinctly fibro-cartilaginous, the fibres interlacing with each other so as to produce meshes in which the cartilage cells are lodged; nearest the bone the fibres disappear, and the cells are of an oval shape, and few in number. The most remarkable point about this preparation is the great thickness of the fibro-cartilage of the articular surface.

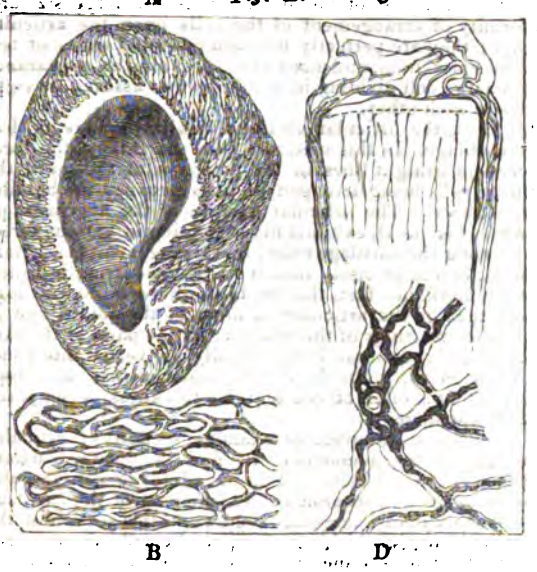
In the *Batrachia*, as seen in this vertical section of the head of a femur of a frog, the cartilaginous matrix is clear and transparent; the cartilage cells are smallest and most numerous at the part nearest the bone; as we proceed towards the articular surface they become larger, and the nuclei are more plainly seen. But the most interesting fact connected with the cartilage of the batrachia is, the large size and uniformity of arrangement of the cells upon the articular surface; they are perfectly flat, and resemble scales of tessellated epithelium, and many of them exhibit an appearance of one large cell dividing into four by two fissures at right angles to each other.

In birds, the articular cartilage is always more or less fibro-cartilage. In this specimen from the turkey, the fibres proceed in straight lines in the direction of the shaft, the cartilage cells being arranged in rows between the bundles of the fibres. The articular surface of the specimen, as shown in *Fig.* 43 D, exhibits fibres running in various directions among the cartilage cells; this arrangement is constant in birds, and is precisely similar to that occurring in fishes. It is a remarkable fact, that in birds there is no cartilage except that of the articular surfaces of the joints, and in some cases the rings of the trachea; all the parts of the skeleton of these animals being rapidly converted into bone, and even in the joints the coating tissue, which (as shown in *Fig.* 43 C) is often of considerable thickness, is composed of fibro-cartilage.

The moment, however, we examine sections of articular cartilages in the mammalia, we find in them a constant arrangement of the cells, and in the adult the non-vascular lamella makes its appearance. In the part of the cartilage nearest the articular lamella, as shown in this section of the articular surface of the bone of an ox, the cells are arranged in columns, but near the articular surface their direction is changed. The same thing is evident in this vertical section of the articular cartilage of the humerus of a pig, in which also a well-developed non-vascular lamella is visible; as in the ox the cartilage-cells near the articular surface are arranged at right angles to those nearest the bone. In this specimen also, which is a vertical section of the head of a femur of a female aged 19, the same arrangement is perceptible; but it will be noticed, that the articular lamella is but sparingly developed. I now show you a vertical section of the corresponding bone of a female upwards of 70 years of age, in which the arrangement of the cells in the cartilage precisely resembles that in the preceding specimen, but the non-vascular lamella is nearly twice as broad. If the free surface of the articular cartilage of the young woman be examined, the cells will be seen to be more or less flattened, and to contain nuclei; but in the older woman the cells are present without nuclei. Having shown you these varieties of articular cartilage, it now becomes necessary that I should say something of the synovial membrane, which, by some persons, is said to invest all portions of the articular surface. In fœtal animals both of man and of all higher mammalia, each joint is covered with synovial membrane and an epithelium; as soon, however, as the joint is used, the epithelium first, and subsequently the synovial membrane itself, disappear from all parts subject to friction, but, in the patella, as maintained by Mr. Toynbee, it sometimes remains. In all my observations on the synovial membrane, and in the sections made for description in the Histological Catalogue, which include a large number of animals of each of the four great classes, I have never found it very far in advance of the vessels. Articular cartilage in the fœtal condition is supplied with blood-vessels, which pass into its substance, and all parts in the neighbourhood of its articular surface are nourished by the vessels of the synovial membrane, which, as we will be presently shown, always terminate in looped extremities immediately on the margin of the surface subjected to pressure. I here show you, at fig. 46, the glenoid cavity of a human fœtus, which is surrounded by a margin of capillaries; these project inwards as far as the socket for the reception of the head of the humerus. There

each terminates in a looped extremity, the loop itself, as shown in *Fig.* 46 B, being sometimes dilated to two or three times the size of that of the vessel forming it; from this dilated portion it would appear that the synovial fluid is poured out. I now show you another specimen, which is a vertical section of a portion of the head of the metacarpal bone of an adult, in which you may distinctly see the looped vessels of the synovial membrane passing upon the articular cartilage as far as the part subjected to friction; these vessels do not enter the cartilage, neither is there any other source from which adult cartilage derives its nutrition, save these vessels of the synovial membrane.

Fig. 46.



Having shown you that the vessels of synovial membrane, both in the fœtus and in the adult, pass upon the surface of articular cartilage as far as the part subjected to friction, I will now endeavour to point out in what way the interior of the cartilage is supplied with vessels, and will exhibit in the first place a vertical section of the upper half of the right radius of a fœtus in which, as represented by *Fig.* 46, C, may be seen vessels from the periosteum passing into the cartilage immediately above its connexion with the shaft, and divide and subdivide into a numerous series of branches; the shaft also is injected, but its vessels are not continued into the cartilage, the layer of bone upon which the cartilage is situated, termed by Mr. Toynbee the non-vascular lamella, and indicated by the dotted line, not admitting of their passage through it; the vessels of the shaft on reaching the lamella are said to terminate in loops. I now show you the opposite half of the same specimen, and you may notice, even with the naked eye, that the shaft in the neighbourhood of the cartilage has a greater number of vessels than any other portion; it is at this spot that the growth of new bone is taking place. Immediately above these vessels is seen the cartilaginous epiphysis, and upon all parts of its surface, except those subjected to friction, the capillaries of the synovial membrane are distributed, all of them terminating in loops. In this specimen, which is a vertical section of the head of the tibia with its epiphysis attached, you may notice a rich network of vessels of synovial membrane upon its upper margin; in the epiphysis there are numerous vessels also; some of these enter the cartilage near the upper margin, but others may be seen winding round between the upper part of the shaft and the epiphysis; these last are derived from the articular vessels of the periosteum.

In the shaft, Haversian canals may be observed, some of which have vessels in them. The portion of bone immediately underneath the epiphysis is whiter than the rest; this is the non-vascular lamella before alluded to, and no vessels pass through it to supply the cartilage.

All the vessels of cartilage run in canals; in the early stage of embryonic existence, as shown by Mr. Toynbee, the cartilage has deep notches or indentations for their reception, at a later period of growth the canals are still visible in the interior. In the section which I now show you, from the head of the humerus of a human fœtus, the vessels, as represented in *Fig.* 46, D, are very numerous and irregular in their outline; if any one of them be accurately focussed, it will be found to be enclosed in a tube or canal; this is very evident in the vessel occupying the centre of the field of view. The vessel itself is small in comparison with the canal in which it runs, but other vessels may be noticed in the neighbourhood of this one, which are so distended as to fill the entire canal.

CLINICAL LECTURE,

AT

ST. BARTHOLOMEW'S HOSPITAL,

By Dr. BURROWS.

ON THE MORE IMPORTANT DISEASES OF THE ANTERIOR MEDIASTINUM.

Gentlemen,—Although the diseases of this part of the body are of rare occurrence, and therefore not described at any length by systematic writers on medicine, you should be aware that diseases may occupy this portion of the chest, and are often very formidable, either from the peculiar nature of the disease itself, or from the serious impediment which morbid products in that locality offer to the functions of the vital organs in the immediate vicinity.

The diseases which you may anticipate to be going forward when your attention is directed by local symptoms to that region of the chest, are—1, aneurisms of the ascending aorta; 2, abscesses in the cellular tissue; 3, tumours of various kinds.

Of the first I shall say nothing, because the diagnosis of aneurisms of the aorta, principally founded upon physical signs obtained through auscultation and percussion, is carefully given in all treatises on diseases of the heart and great blood-vessels. These aneurisms will no doubt give rise to a certain train of local symptoms, which will also be observed in the progress of other diseases in the same locality; but in the present day we rely much more upon the physical signs than upon the local symptoms, in the detection of an aneurism of the aorta.

Of the second complaint to which I alluded as likely to occur in this part, namely, abscess, I need hardly remark, that before that has formed, your attention will have been drawn to this part of the chest by the usual local and constitutional symptoms indicative of inflammation; while auscultation will give you the negative information, that the inflammation is not going forward in the respiratory tubes, nor in the pulmonary tissue. The ordinary local symptoms of inflammation will soon be followed by those indicative of pressure on the respiratory tubes, upon the œsophagus, and upon the great veins beneath the upper sternum.

If suppuration take place in the mediastinum, and the pus do not speedily point above the sternum, the patient will soon be placed in great danger by the burrowing of the pus through the cellular tissue surrounding the trachea, bronchi, aorta, and œsophagus. Suffocation will probably be the result, caused either by increasing pressure on the respiratory tubes, or by the sudden bursting of the abscess into one of them.

Thirdly, you may expect the formation of tumours of different kinds in this part; and it is to the illustration of this particular lesion that the following cases and observations are brought before your notice upon the present occasion. These tumours may be tubercular or malignant growths; most commonly, I believe, carcinomatous.

The development of a tumour in the anterior mediastinum is often slow and insidious, and, on account of its rarity, is seldom suspected, although the local and general symptoms, as well as the physical signs, will enable you to detect its presence if your suspicions are aroused as to its existence. The existence of a tumour in this situation will be more especially indicated, first, by the usual symptoms of irritation and pressure on some portion of a respiratory tube; secondly, by various local symptoms, resulting from pressure, and obstruction to the return of blood to the heart through the cava superior or its tributary veins; and thirdly, by certain physical signs, indicating the presence of some solid in the upper part

of the thorax, capable of transmitting the heart's sounds far beyond their proper limits, and modifying the respiratory murmur in the upper lobe of one or perhaps both lungs.

In the earliest period of the growth of a tumour in the anterior mediastinum you will find that the patient repeatedly suffers from attacks of urgent dyspnœa, such as is produced by pressure on the trachea, or a bronchus. The attacks are spasmodic, often coming on in the night, causing great distress, and giving rise to the suspicion that the patient is the subject of spasmodic asthma. During the paroxysm of dyspnœa, and even at other times, the patient will complain of some uneasiness immediately above the sternum, in the lower part of the wind-pipe, and will express the inclination to cough up something which causes a constant discomfort in breathing. The attack of dyspnœa may subside rapidly soon after the patient is thoroughly roused from sleep and has preserved the erect posture for a short time, or the dyspnœa and cough will subside after the expectoration of some viscid mucus. Auscultation and percussion seldom give any precise information at this early stage. During the paroxysms of dyspnœa, the patient is usually so much distressed and alarmed, that a careful examination of the chest is scarcely practicable. If an examination be made, there will probably be heard some loud tracheal sounds, which overcome and mask all other respiratory sounds; or some tubular breathing, with rhonchus, will be heard through a considerable portion of the chest. Upon the decline of the asthmatic seizure, the tracheal sounds will also subside; some rhonchus or large crepitus may still be heard through a portion of one lung; and it occasionally happens that vesicular murmur is found less intense than normal in some portion of a lung, while the resonance on percussion remains healthy. Thus all the symptoms and physical signs at this early stage lead to nothing further than suspicion of the real disease, and to the assurance that no serious structural change in the lungs gives rise to the distressing attacks of dyspnœa. The continuance or frequent recurrence in varying degrees of intensity of the foregoing symptoms may have led you to suspect the presence of some cause of pressure on the respiratory tubes near to the bifurcation of the trachea; when, secondly, these suspicions are strengthened by observing various local signs of pressure and obstruction to the return of venous blood to the heart through the cava superior and its tributary veins. The cutaneous veins about the upper sternum and one clavicle become more conspicuous than natural. This, I believe, is more frequently noticed about the right side than on the left; at least, I have observed this phenomenon five times on the right, and only once on the left. The external jugular, the thyroideal, the mammary, and thoracic veins, successively enlarge, remain constantly turgid, and become tortuous. If the course of the current, in some of the enlarged superficial veins on the thorax, be ascertained by means of pressure at different points, it will probably be discovered, that the blood is moving in some of them in a retrograde direction to that which is natural. After awhile the superficial veins of one upper extremity become enlarged and conspicuous. This venous congestion is soon followed by œdema of the affected parts: some swelling is now observed on one side of the throat, about the upper portion of one side of the chest, of the upper extremity of the same side; and, lastly, if the patient be an adult female, by a gradual enlargement of the corresponding breast. This progressive œdema will at last extend to the face, particularly to the eyelids, which become puffy, while the expression of the eyes is peculiar. They have a glassy, watery look, with rather dilated pupils, which state of the eyes is not unfrequently observed in cases where there is an obstruction to the passage of blood through the right cavities of the heart, and which condition of the iris may, at your will, be temporarily induced, by holding the breath for a long time, and thus preventing the flow of venous blood into the thorax. And now, thirdly, you will, by careful and repeated auscultation and percussion, detect physical signs which denote the presence of some solid beneath the sternum, which transmits the heart's sounds far beyond their proper limits, and which seriously impairs and modifies the healthy respiratory murmur in the upper lobe, and subsequently, perhaps more extensively, of one lung. I have already mentioned, that according to my experience in these cases, this change is observed to take place much more frequently on the right than on the left side. The heart's sounds will be heard distinctly to the summit of the sternum, and, to a varying extent, beneath the right clavicle, but without the peculiar blowing sound which is generally heard over a large aneurismal sac in the same situation. Neither do we detect the well-known pulsation of an aneurism in the intercostal spaces, nor above the sternum; although, in making this latter examination, you may probably remark, that the lower portion of the trachea is more or less forced out of its normal direction; and in some cases this deviation of the trachea is very obvious and considerable. The respiratory murmur will be impaired or inaudible over certain portions of the upper part of one lung, and, if any breath-sound be heard, it will be tubular or bronchial in its character. As the case advances, these auscultatory signs become more confirmed and extended. It is found that there is a great impairment of respiratory murmur in the lowest part of the affected side. Percussion also gives a dull sound all over the sternum, over the greater part of the front of the affected side, and posteriorly over the scapula, towards the root and base of the same lung; while a resonance is obtained, by percussion, in the axilla of the affected side. The dyspnœa, orthopnœa, and ineffectual cough, together with the above-mentioned physical signs, will, perhaps, lead the examiner to pronounce the case as one of pleuritic effusion. And this effusion, although only an accident in the case, does really generally co-exist to a certain extent, as might be expected; for the same pressure which has caused so much venous congestion and serous infiltration of the integuments of the upper half of one side, will produce pulmonary congestion and serous effusion into the corresponding pleura. But, if you inquire into the history of these cases, you will find that this lesion is quite inadequate to explain the occurrence of all the distressing symptoms of asthma which have been observed at an early period; moreover, you will remark, in these cases, that the most resonant parts of the affected side are in the axilla and hypochondrium; while the greatest dulness is detected in the subclavian region and towards the root of the lung,—phenomena which are the reverse of those detected in a case of advancing pleuritic effusion.

At this stage of the disease, the dyspnœa is urgent and constant, occasionally aggravated to paroxysms which threaten immediate suffocation. The patient remains in a state of orthopnœa, most likely unable to speak or swallow without bringing on a dreadful increase of suffering. But the progress of such cases will be best illustrated by referring to the clinical reports of a case you have recently seen in John Ward.

John Lymes, aged 15, was admitted under my care into John Ward, on March 7, 1850. He was a thin, pallid, delicate-looking lad; the eyes slightly suffused; the lips dry and parched; skin warm; pulse 132, very small and soft; tongue red, with elevated papillæ; bowels open; urine abundant.

He complained of dyspnœa, troublesome cough, of a peculiar croupy, tracheal character, with copious, thin, frothy expectoration; also, of loss of appetite, thirst, difficulty of deglutition, and of some pain in the chest, chiefly between the scapulæ. He was a lucifer-match maker, and had been an inmate of the hospital during the previous autumn, suffering from the epidemic cholera. He was then very ill, and had never recovered his former health. He was supposed to have caught cold about two months ago; since then he has complained of pain in the chest, of a bad cough, of failing strength, and loss of flesh.

Auscultation anteriorly.—Detected prolonged, loud, coarse, tubular breathing all over the right side, and less intense tubular breathing in the left subclavian region. Percussion gave complete dulness on the right side, across the sternum, also beneath the left clavicle and in the cardiac region, while the resonance was good in the left axilla. Posteriorly, loud tubular breathing was heard all over right side, also over the upper part of the left, while vesicular breathing was heard in left infra-scapular and axillary regions. Complete dulness on percussion over right side and upper part of left, and impaired resonance in lower half of the left side.

In the course of the few following days the dyspnœa, cough, and difficulty of expectoration rapidly increased, and the choking sensation on swallowing so distressing that he scarcely took any food. Upon more careful examination of the throat, it was found that the right external jugular, and some other veins, were somewhat distended, and that the trachea was displaced from its normal situation, so that it slanted from the larynx towards the left, and entered the thorax just behind the left sterno-clavicular articulation.

Upon reviewing the history of the case, the dyspnœa, the peculiar cough, displacement of trachea, dysphagia, and physical signs indicative of condensation of the right lung, I stated my belief in the existence of a mediastinal tumour, compressing the contiguous parts, and encroaching upon the right lung.

The various symptoms were met by local depletion, the application of a blister, the administration of the iodide of potassium, with sarsaparilla, and iodine frictions in the right axilla.

No mitigation of the symptoms was obtained during the ensuing week, and we now observed, (March 14,) with his increasing weakness, that he steadily preserved one posture, semi-recumbent, inclining on his right side, with his left arm elevated, and his left hand grasping a rope above his head. Any change from this posture caused much increase of suffering. He seemed to keep the left thorax distended to the utmost.

His peculiar posture, and the physical signs obtained by auscultation and percussion over the right side, led to the suspicion that many of the urgent symptoms arose from effusion into the right pleura. Upon measurement of the two sides, it was found that the right semi-circumference of the chest exceeded the left by half an inch. Some vocal vibration was felt in the left axilla, but none in the right; but still some feeble breath-sounds could be heard over the lower lobe of the right lung. From the small excess of size of the right side, and from the existence of the breathing sounds low down, I inferred, that the quantity of fluid in the right pleura was not considerable or adequate to account for the urgent dyspnœa.

On March 26th, his weakness had become extreme; his difficulty of deglutition most painful; some lividity of face; increasing congestion of veins about right clavicle and shoulder; œdema of right arm; his position remaining as before described; the displacement of trachea more remarkable, so that it passed downwards fairly to the acromial side of the sterno-cleido-mastoid muscle.

The auscultatory signs did not vary; but his increasing weakness and great distress on movement forbade any further careful examination of the chest, and he expired, more from asthenia than apnœa, on March 29th, and the corpse was examined on the following day by Dr. Kirkes.

The distortion of the trachea noticed during life was even more striking after death, the lower portion of it being pushed beyond the left sterno-clavicular articulation. On removing the sternum, this displacement was seen to be produced by a large mass of foreign substance occupying nearly the whole right pleural cavity, extending forwards rather beyond the middle line, and passing upwards, under the trachea, towards the articulation of the left clavicle with the sternum. In front, the mass was adherent to the sternum; laterally and above, it adhered to the costal pleura, and had caused slight erosion of the upper ribs; while below, it extended beneath the level of the fifth rib. This mass appeared to have originated in the tissue of the mediastinum, and to have encroached upon the substance of the upper lobe of the right lung, which was greatly compressed, devoid of air, of a pale leaden colour, and apparently quite free in structure from any portion of the foreign growth. The middle and lower lobes of the lung were also much compressed, and almost empty of air. This compression, however, seemed to be partly due to a little fluid which occupied the lower part of the pleural cavity. By means of the growth the heart was pushed unusually to the left side; the large vessels in the mediastinum were elongated and distorted, but apparently not compressed sufficiently to interfere materially with the transit of blood; and the œsophagus and trachea were displaced and compressed, the latter being much narrowed and of a circular shape. The right bronchus passed through the midst of the mass, and appeared very narrow. The malignant growth was uneven and nodular on its surface; it was covered by a smooth membrane, which was evidently formed of the pleura. The superficial portions consisted of masses of white, soft, medullary carcinoma. The great bulk, however, was made up of a soft, friable, pale-yellowish material, abundantly infiltrated with dark extravasated blood. This effused blood constituted a large part of the whole mass, and was in many places disposed in large masses, though usually it was thickly scattered in points and streaks in the midst of the reticular yellowish material. Interspersed within this peculiar material were several masses of ordinary, soft cancer, reduced to the state of pulp, or like thick cream. The left lung was healthy; the heart also was healthy; no other part particularly examined.(a)

Although the following case was not under your observation, still its history will enable you more fully to comprehend the usual progress of these cases of mediastinal tumour.

On the 6th April, 1850, I was requested by Mr. Stewart, of Aldersgate-street, to visit his patient, Miss ——, aged 26, whose condition was as follows:—Her aspect was distressed; the face bloated, puffy, and dusky; the respiration short, hurried, and noisy, from the presence of tracheal mucous; she was panting for breath, and constantly in a state of orthopnœa; she could neither speak nor swallow from the dread of immediate suffocation; there was œdema of the face, and throat, and upper parts of the body, principally on the right side; there was also a defined swelling beneath the right mastoid process, apparently an enlarged absorbent gland; the skin clammy, and the pulse hardly perceptible; she was seized with occasional fits of choking cough, and expectorated some glairy puriform mucous. Her distress and exhaustion were so great that no careful or prolonged examination with the stethoscope could be attempted. I found, however, that over the greater part of the right lung there were rhoncus and large crepitation, and transmitted tracheal sounds, and percussion gave a dull sound wherever the right side could be examined. The sounds on the left side were nearly normal. The tracheal sounds quite overpowered those of the heart.

I learnt from Mr. Stewart that this young lady, who appeared in such imminent danger, had been in apparent health a month previous to my visit; that she had been attacked with cough and increasing difficulty of breathing, and that, in consequence of the obstinacy and urgency of the symptoms, two physicians, each eminently skilful in physical diagnosis of thoracic disease, had already been consulted, and had pronounced the case to be one of advancing pleuritic effusion. In this opinion Mr. Stewart did not participate, and, therefore, requested my assistance also; and, although I did not dare, upon so slight an examination, to pronounce a decided opinion, I expressly stated, that there must be some cause of pressure on the respiratory tubes and thoracic veins, independent of pleuritic effusion. I merely suggested occasional doses of chloric ether, and mustard poultices to the chest.

On April 8th, Mr. Stewart again invited me to visit his patient, and informed me that the paroxysm of urgent dyspnœa, which I had witnessed on the 6th, had subsided two hours after my visit, and before the chloric ether had been given. This remedy, however, had afforded comfort, and each dose was followed by rapid diuresis.

I now found the patient much improved in appearance, but she was still compelled to preserve the erect posture. She could speak with a strong voice, change her position in bed without distress, and swallow solids easily; but the deglutition of fluids was difficult. The respiration was much more tranquil, and the tracheal sounds were only heard every now and then; the tongue moist, and the pulse 90, full; the œdema and other general symptoms remained as before. Auscultation detected loud tubular breathing, with bronchophony all over the upper part of the right lung, both before and behind, with great dulness on percussion. The breathing was less tubular and the percussion rather less dull in the axilla and over the lower part of the same side. The heart-sounds were transmitted across the sternum to the right side, while the impulse of the heart was felt more into the left axilla than normal. Auscultation and percussion gave nearly normal results on the left side.

Upon this occasion I did not hesitate to inform Mr. Stewart, that the symptoms which I had witnessed, as well as their remarkable remissions, and the physical signs I had detected, led me to suppose there was a mediastinal tumour, causing pressure on the respiratory tubes and thoracic veins, and making gradual inroads upon the right lung. Although there appeared no prospect of saving life, I advised the continued use of chloric ether and counter-irritants, as well as the potass. iodid., both internally and externally.

On the 23rd April, I again visited the patient, and I learned that her condition had varied much in the fortnight's interval between my visits. Sometimes she had been comparatively easy, as I found her on this occasion; while at

(a) "Hospital Register," Vol. III. p. 195.

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other times the dyspnœa had been intense. On the 15th instant, Mr. Stewart had sat for three hours by her bedside, expecting her dissolution momentarily from suffocation. At that time the œdema of the head, neck, and upper part of the body greatly increased, and all expectoration was suspended. The urgent symptoms of apnœa gradually subsided, and shortly afterwards the expectoration again became copious, puriform, and nummular." Upon auscultation I found a considerable change in the sounds. There were scarcely any respiratory or vocal sounds to be detected from the right clavicle to the mamma, and here the dulness on percussion was extreme. Tubular breathing, bronchophony, and transmitted tracheal sounds were heard about the right scapula, and the respiration was rather more audible lower down. Percussion gave a dull sound all over the right side posteriorly. The breathing had become rather tubular in the left subclavian region, where there was some dulness on percussion, as well as across the sternum. The heart's sounds were heard over an extended space to the right and left of the sternum.

My opinion of the nature of the case remained unaltered, and the physical signs denoted a more extensive encroachment on the right, and commencing invasion of upper lobe of left lung. I saw no more of this suffering young lady, but learnt from Mr. Stewart, that she had gradually sunk, worn out by the symptoms I have detailed; and he invited me to be present at the autopsy on May 4, which was performed by Dr. Kirkes.

Body pale, not much emaciated, no duskiness of surface; neck swollen rather hard; some œdema of face, of right upper extremity, and of integument of right side of thorax; no apparent enlargement of superficial vessels of any part of trunk or limbs, but the jugular veins, especially the right, were distended with fluid blood. Right side of thorax seemed rather fuller than left, and was universally dull on percussion; the dulness extended somewhat to the left of the middle line; the left side, anteriorly, was universally resonant. No bulging or widening of the intercostal spaces on the right side. Mammary glands not wasted; glandulæ around nipples unusually developed; areolæ not darker than usual.

The portion of the trachea above the sternum did not deviate from the right line, but projected forward rather more than natural; below the sternum it was pushed somewhat to the left, and appeared unusually narrow, as if from stretching. The hardness and swelling of the neck were due to œdema of the integuments; the absorbent glands were enlarged, but none of those examined contained any morbid material.

On removing the sternum, the upper and middle part of the right pleural cavity was found occupied by a large lobulated mass of brain-like cancer, continuous with similar masses in the mediastina, and adherent to the costal pleura, especially in the mammary and axillary regions. Several various-sized independent masses of medullary cancer, in different states of softening, and of various shades of colour, from milk-white to dark chocolate, were scattered through the substance of the compressed, but otherwise healthy-looking lung.

The lower half of the pleural cavity and the various spaces, laterally and behind, occurring between the projections of the malignant growths, were filled with turbid serum; the cavity contained altogether probably about Oiss. of this fluid.

The right bronchus, in its course to the lung, passed through the midst of the malignant mass, and immediately after it entered the root of the organ it became reduced to very narrow dimensions; then, beyond the narrow part, it, and the various branches proceeding from it, suddenly opened out into wide pouch-like dilatations, interrupted here and there by constricted portions. Many of these dilatations were of remarkable size, appearing like large cysts, filled with thick, tenacious, puriform mucus. The alternation of wide and narrow portions, extended to the terminations of nearly all the branches of the bronchial tube. The mucous lining was red, rather coarse, but moderately smooth.

The large masses situated in the mediastina, and lying along the bodies of the dorsal vertebræ, had displaced and compressed the roots of the great vessels at the base of the heart; while the superior cava, which was quite encircled by one of the masses, was so extremely reduced in size at its entrance into the auricle, as scarcely to admit of the passage of a narrow probe along its canal. Above this point the vessel gradually assumed more of its ordinary diameter; its interior was smooth, and it contained no coagula. The inferior cava was rather above its ordinary size.

The pericardium contained some turbid serum, in which a few flakes of recent lymph were suspended. Its surface presented numerous patches of vascularity, especially where it spread over the roots of the great vessels, and over the nodules of the cancerous masses which projected into the cavity at the base of the heart.

The heart itself was healthy, so also was the left lung.

No deposits were found in the kidneys, liver, spleen, or other parts examined.

ORIGINAL COMMUNICATIONS.

PRACTICAL OBSERVATIONS ON DISEASES OF THE EAR, WITH RECORDS OF CASES TREATED AT ST. MARK'S HOSPITAL, DUBLIN.

By W. R. WILDE, F.R.C.S.&c.

No. 6.—CHRONIC INFLAMMATION OF BOTH MIDDLE EARS.—EXPLORATION THROUGH THE EUSTACHIAN TUBES.

January, 1850.—J. R., aged 20, a seaman, has been deaf for some months past, and attributes his affection to a severe cold, caught by falling into the sea from the deck of a ship. He never felt pains in his ears prior to that time, and never experienced any deafness before. Says he did not become deaf suddenly, but that his hearing was gradually impaired during the severe attack of cold under which he laboured at the time referred to; he gives, however, a very confused account of his symptoms or the history of his case. Seamen seem to be particularly liable to diseases of the ear; but, from their peculiar habits and want of education, they are bad subjects for lecture. It will scarcely be credited, but it is nevertheless true, that several captains of merchantmen and colliers, trading to this port from other parts of the United Kingdom, are unable to write. This man says his deafness came on from cold, and possibly such was the case. Alterations of temperature, sudden or long continued exposure to the effects of the weather, in a climate so variable as ours, are some of the most frequent causes of disease, particularly of the mucous membranes, and a common source of inflammation. Hence, perhaps, the great number of pulmonary diseases, the deaths from which swell the weekly Bills of Mortality in England to such an extent. Yet one of the most common excuses made by deaf persons, upon being asked why they did not take advice sooner, is, "Oh! I did not think it would signify. I thought it was only a cold, particularly as I had the influenza at the same time." Yes, it was in all probability only a cold, or only the influenza, and both are very likely to accompany or be attended by disease of the middle ear. During the prevalence of influenza, deafness is not an uncommon symptom; the relaxation of and over secretion from the mucous membrane of the throat, nose, and mouth, extending through the Eustachian tube into the middle ear.

Right Ear.—The meatus is natural in appearance, but remarkably long, and more tortuous than usual. There is great variety in the length, calibre, and curvatures of the sides of the external auditory passage among different persons,—perhaps just as much as there is in the shape of the nose, the auricle, or any other feature of the face. I had no idea how much diversity existed in the auditory canal I began to study diseases of the ear; and latterly I have so frequently observed and pointed out to the class congenital

peculiarities and malformations of the auricle in persons who have applied here for advice on account of some aural disease, that I have been forced to the conclusion, either that these peculiarities occur much more frequently than is supposed, or that in some way which is at present unaccountable, persons possessing such peculiarities are more subject to aural diseases than the rest of the community. Among the abnormal conditions of the meatus auditorius externus may be mentioned exostosis, but of this and other tumours and obstructions in this region, we shall no doubt see examples in the course of the session; therefore it is unnecessary here to dwell upon them. In this case, the tympanal membrane seems, for the reasons already specified, to be deeper or at a much greater distance than usual; it is thickened, opaque, collapsed, and the patient has not the power of inflating the drum and pressing the membrane outwards, by making a forced expiration in the manner to which I have alluded on a former occasion. He cannot hear the watch on this side.

Left Ear.—Nearly the same peculiarities are observed as in the right. The membrana tympani is both thickened and opaque, but it still bears a reddish blush, in consequence of the inflammatory action yet lingering in it. He hears the ticking of the watch upon its being pressed against this ear, but is not conscious of any sound when it is placed between the teeth or laid against the forehead. There is a hissing noise in both ears, and he states that he is occasionally conscious of a sudden report, as if a small pistol was fired within his ear.

As the tympanal membranes appear collapsed, and as the patient is unable to inflate the drum on either side by any effort upon his part, I am inclined to think that the Eustachian tubes are closed, or the cavities of the middle ear blocked up with mucous secretion. The acute stage having already passed, and some months having elapsed since the original inflammation was excited, I think we may here with safety explore the Eustachian tube, and endeavour by artificial means to press a column of air into the middle ear, and thereby also assist to free it of its extraneous contents, and to restore to its natural position the vibrating portion of the tympanal membrane. It will, however, be of as little avail to effect the former of these objects, as it would to press out the contents of the lachrymal sac in a case of mucocele, or chronic inflammation of the mucous membrane of that cavity, unless we at the same time make use of such means, both topically and constitutionally, as shall restore the healthy character of the lining membrane of the middle ear, which has evidently participated in the diseased action, such manifest traces of which are observable upon the external aspect of the membrana tympani. You have all no doubt heard a great deal about catheterism of the Eustachian tube,—of the marvellous and instantaneous effects attributed thereto, of the accidents which may occur, and of the difficulties which beset the operator in his endeavour to introduce an instrument into the faucial opening of the passage which leads into the middle ear. Of the history of the operation I have already given some account, (see *Dublin Journal of Medical Science*, Vol. XXV., 1844,) and, therefore, it is unnecessary again to refer to it; besides I am anxious, in these clinical lectures, not to burden you with observations which you may find in books and writings on the subject, but to confine my remarks as much as possible to the particular cases in hand, or give you such practical information, bearing on the subject generally, as my own experience affords. I know few subjects upon which there is more general ignorance than the value to be attached to Eustachian catheterism, or the best mode of employing it. Some writers would lead you to suppose that this operation is of use in a far greater number of aural diseases than, according to my experience, is the fact. They would have you explore the middle ear, in order to facilitate your diagnosis, in almost every case that presents. Errors of commission are in both medicine and surgery, I believe, of much greater injury than those of omission; and the introduction of a foreign body into the Eustachian tube, forcing a volume of cold air, or injecting a quantity of fluid, even warm water, into the cavity of the middle ear, as some recommend and say they practise, is, in nearly all cases, while inflammatory action is going forward in the parts submitted to the process, unnecessary and frequently injurious. Again, the mode in which I have heard both patients and bystanders speak of instruments,—catheters of various kinds, gum, elastic, and metallic, and even solid sounds, some of the latter much larger than the bore of the aural end of the Eustachian tube,—being introduced into the middle ear, in order to explore that cavity, to wash out its contents, or to break up collections of mucus within it, or to dilate strictures and contractions of the tube itself, convinces me that the desired object was not, fortunately for the sufferer, obtained. People are, however, beginning to find that this attempt—for I know in many cases it is only an attempt—to force solid or fluid substances into the cavity of the drum, is as ineffectual to remove deafness as the almost indiscriminate excision of the tonsils, recommended for a like purpose in London a few years ago, has proved to be. Any of you who have read the English edition of Kramer's book, might be led to suppose, that cases of what are termed "nervous deafness," were susceptible of relief by having the vapour of ether and other gaseous and volatile substances pressed into the middle ear, in order to fumigate the mucous membrane of the drum, and thereby stimulate the dormant powers of the auditory nerve! Well, ten years' trial and experience has not, in other hands at least, verified the anticipations which were entertained from a perusal of the Berlinese aurist's opinions. The age of fumigation of ears, as well as eyes, has, for the present, passed: it has not been found that the vapour of nitrous or sulphuric ether cures deafness, no more than that of prussic acid removes cataract or deep-seated corneal opacities. A new edition of Dr. Kramer's book (*"Die Erkenntniss und Heilung der Ohrenkrankheiten"*) was produced in February, 1849, the author having been, he says, induced, during the revolution in the Prussian capital, to betake himself to literature and to the revision of his former writings. From the tone of the remarks which have been introduced into this new edition, one is inclined to think the writer's labours must have been very much interrupted by the fierce battle waging around him; for certainly, while we are unable to discover much additional matter of value therein, we are not a little surprised at the uncourteous style of his language,—so unsuited to the discussion of a scientific subject, and so lowering to the individual who can make use of it. For myself, I cannot but feel complimented by having so large a portion of the insertions in Dr. Kramer's new edition devoted to the consideration and review of my writings and opinions; but, for the sake of literature and science, and the friendly feeling which has so long, and I hope ever will, exist between the Irish and the German Schools of Medicine, I cannot but regret that my friend did not discuss the questions at issue in a calmer and more philosophic mood. To return, however, to the subject from which this is a digression, let me advise you to bear this rule ever in your remembrance before exploring the middle ear. It is one which Sir Astley Cooper observed to me many years ago, and I have never since ceased to act upon it. Wherever the patient is himself able to inflate the tympanum, never use any artificial means to do so. It is unnecessary and may be injurious. Let me to this aphorism add another, which you would do well to remember. Where you have reason to believe that the cavity of the drum is inflamed, carefully abstain from all poking with catheters, or any attempt to introduce foreign substances into that delicately-organised portion of the animal machine. As good general surgery teaches you to abstain from the introduction of instruments through an inflamed urethra, or into an irritable bladder, so ought judicious aural surgery teach you to abstain from meddling in the cases to which I have alluded. The only solid instrument with which I have ever ventured to explore the Eustachian passage, is an ivory bougie from which the earthy matter has been removed by immersion in an acid; the use and mode of application of which I shall explain to you on another occasion.

The catheter which I employ is that recommended by Dr. Kramer,—a silver instrument, and of a large size, is less likely to do mischief; less liable to catch in the folds of the mucous membrane, and more apt to adjust itself to the bell, or trumpet-shaped mouth of the Eustachian tube than one of a smaller size, or composed of a different material. Some people say that the catheter can be introduced through the mouth, and others recommend it to be passed above the lower turbinated bone of the nose; and again you hear it asserted, that the instrument, being once properly fixed in the Eustachian tube, it will remain there, or the patient himself may be directed to hold it until a bladder full of air, or a syringe charged with fluid, is adjusted to its extremity, and the contents of either then discharged through it into the middle ear. In a clinical lecture of this description, it would occupy

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too much time to enter minutely into the objections to each of these modes of proceeding; suffice it to say, that I do not believe they are generally feasible. Along the floor of the nose is, in the first instance, the most ready access to the Eustachian tube; but, supposing that we have passed the instrument with the greatest facility, and are quite sure that its beak has turned into the faucial opening of the Eustachian tube, you must always bear in mind that not much more than half an inch, or at most three quarters of an inch, of the curved portion of the instrument has passed into the tube, and that the slightest exertion on the part of the patient, either of the anterior naris, which is irritated by the foreign body, or the posterior naris, or the top of the pharynx, where all the parts concerned in deglutition are more or less strained and excited, may disadjust the instrument. The slightest effort at deglutition will often effect this; even the act of swallowing the saliva, as you may perceive, by observing the alteration in the position of the ring at the end of the catheter which projects beyond the nose. It fortunately so happens, that nausea is seldom produced by this operation if the instrument has been carefully and delicately introduced. In order, however, to obviate the difficulties which I have just referred to, and to keep the instrument, when once properly adjusted, fixed in the right place, mechanical contrivances have been devised, of which that which you now see me employ is the handiest. It consists of a sort of vice, the plate of which is fastened upon the forehead, immediately above the root of the nose, by means of a leather strap furnished with a buckle, which passes round the head. Upon the front of the metallic plate is a ball and socket-joint, in which revolves the little vice, or forceps, which is set on at an angle, and should come down over the anterior opening of the noise. Now, to commence the operation; the patient being seated in a chair with the head supported against the back, specially arranged for the purpose, and the vice, or forceps, put on as I have described; with the fore-finger of the left hand elevate the point of the nose, and then with the right hand insert the catheter, with its beak turned outward into the angle between the floor and external wall of that cavity; passing it rapidly over the floor of the nose, a dexterous and well-practised operator will frequently hitch it into the sulcus of the Eustachian opening at the first offer, and is conscious of the fact by that *tactus eruditus*, which nothing but extensive experience can give, but which it is very difficult to describe. If, however, you have missed it, push on the catheter until it is arrested by the back of the pharynx; then turn the beak downwards, and withdraw the instrument a little, until the angle of the curved portion hitches against the posterior edge of the hard palate, and then, making a slight sweep, and turning the beak outwards and a little upwards, and at the same time pushing it slightly in and out, and thus feeling for the opening, you will, after a little practice, succeed in your attempt. You must, however, remember that you have to deal with parts which vary in length and calibre in different individuals. You may always be aware of the direction of the beak by looking to the ring at the end of the catheter which you hold in your hand, as they are both in the same plane. I am now conscious that the instrument has acquired the desired position; that its beak is in the pharyngeal or posterior nasal extremity of the Eustachian tube; but yet, until I make a further experiment with a jet of air, I am not *certain* that it is in the exact position which I desire, as the open extremity of the instrument may be pressing against the thickened or flaccid mucous membrane of the part. Now, let me observe; the instrument has gone in with facility, and the patient has not expressed any sign of uneasiness. We must not, however, let him speak, for the very act of so doing might, until the instrument is properly fixed, disadjust its point. It has gone in, as I said, with facility, because this is a steady patient, and has a well-formed nose. But you all know what great variety there is in the nasal organ, and in what a great number of cases the septum is not in the middle-line; I have met cases in which the vomer leaned over to one side, (generally the left,) so that the aperture was too narrow for the passage of the instrument; and in other cases the lower spongy bone came down so low, and encroached so much upon the nasal cavity, that a similar obstruction was produced. The chief point of irritation is at the anterior extremity of the nose, and therefore it is that you must press up its point with the finger of the left hand, and also pass the instrument with rapidity over this portion of its transit. If the operation be properly conducted, sneezing is seldom produced; but there is another symptom which almost invariably attends the introduction of the catheter, that is, lachrymation; and here you see a tear flowing over this hardy seaman's cheek since I introduced the instrument. It is not the effect of pain, otherwise both eyes would weep; it seldom or never occurs, except upon the side on which you are operating. It appears to be the effect of irritation of the mucous membrane, conveyed, perhaps, along the course of the excretory lachrymal apparatus. It is useful to warm the catheter by holding it near the fire, or rubbing it briskly through the fingers; but, as the parts over which it passes are always well lubricated with mucus, and do not grasp the instrument like the urethra, I do not think it necessary to oil the catheter, as some recommend. Having proceeded thus far, turn down the clamp or forceps, and, leaving the catheter free for a moment, grasp it with the blades of the former, and screw home the nut which tightens them, and then fix the apparatus by means of the screw which arrests the motion of the ball-and-socket joint upon the forehead-plate. Upon this small table in front of the patient, is placed an air-press, the mechanism of which it is not necessary now to detail. You have just seen the assistant working its piston, by which means a considerable volume of air is compressed within a cavity in its interior. With this cavity communicates an elastic tube about two feet and a half in length, and furnished with a stop-cock where it joins the air-press. To the other extremity is fixed a small brass ferrule which accurately fits into the end of the catheter. In connecting these two, considerable care and nicety is required. You hold the catheter with the left hand, and then delicately but firmly insert the ferrule into it with the right. Then make an assistant hold up the flexible connecting tube, lest its weight might disadjust the catheter's point. Before you apply your ear or the stethoscope to the patient, partially turn the stop-cock, so as to let a little air pass through; for frequently, especially if the patient is at all nervous, the first jet of air may cause him to start, and perhaps to disadjust the catheter. I now apply the stethoscope over the ear, by fixing its belled extremity into the concha, by which means its bore is almost directly opposite or over the external meatus. And having applied my ear to the other end of the stethoscope, I turn the stop-cock of the air-press with my own hand, and can thereby regulate with greater precision the force and volume of the stream of compressed air which passes up. By this mode of manipulation alone am I convinced of the fact of the air passing into the cavity of the middle ear; and, until this test is applied, I do not believe that any one can say with certainty that the air has freely passed up. You might as well tell me that you have got a catheter into a bladder full of urine although none of it flowed through the instrument. In a healthy ear, with a free tube, when a stream of air is passed into the tympanum after this fashion, it impinges upon the inner wall of the membrana tympani with a peculiar *thug* sound, which is very remarkable, and, once heard, is not easily forgotten. This is the natural sound, and deviations from it, caused by stricture, or distortion of the Eustachian passage, by a diseased condition of the membrane lining the middle ear, or by collections of mucus, pus, or other fluids in that cavity, produce abnormal sounds of a squealing, rasping, or a gurgling character, which are of value in diagnosing aural affections, but which, at present, would occupy too much time to describe. Upon other occasions, when cases present, we shall have opportunities of testing their value, and perhaps reducing them to some degree of order. Each of you may now, in succession, familiarise yourselves with the sound heard in this man's ear. You perceive that it is of a gurgling character, caused by the stream of air rushing through the mucous secretion, which has collected in the cavity of the drum. The patient himself says he feels a great sound in his head, and as if a trumpet was blowing something outwards in his ear.

The mucous sound which you at first heard has very much decreased, and has in some measure given place to the ordinary *thug*, succeeded by the prolonged *vibratory* sound caused by the stream of air reaching the membrana tympani without interruption. I have now placed the patient in such a position that you have, through the ordinary tubular speculum, a clear view of the external surface of the membrana tympani, and you perceive, when I permit a jet of air to reach the cavity of the tympanum, that it presses outwards the anterior and lower portion of the membrane,

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that which is most vibratory and placed opposite the stream of air, and also that it at the same time renders the upper and posterior part of the membrane highly vascular.

Were I to allow too great a stream of air to pass through the tube the desired object would not be effected; the current of air, not able to find entrance through the Eustachian tube, would force back and disadjust the mouth of the catheter with a loud gurgling noise, like that heard when gargling the throat, and cause considerable annoyance and even pain to the patient by its regurgitation. Therefore it is that the operator should with his own hand regulate the force of the current, while at the same time he listens to its effect upon the ear. Before I remove the apparatus, there is one other point to which I would direct your attention, namely, the position of the ring at the end of the catheter, which, being on the same plane as the beaked or curved portion at the other extremity, will always show the position of the latter. This ring should point outwards and a little upwards, nearly on a line with the external meatus, but the angle which it makes with the horizon, supposing the patient to sit in a natural erect position, will very much depend upon the formation, and especially the length, of the external naris.

To remove the instrument you must proceed with the same caution and delicacy with which you introduced it; first, by gently separating the connecting tube from the catheter; then freeing the latter from the blades of the vice or forceps, and, having pulled it forward a short distance, the beak should be turned downward and the instrument so withdrawn. This, then, Gentlemen, is the operation about which you have heard so much, and from which death is said to have occurred in two instances in London, some years ago. Simple and easy of performance, however, as it now seems, I must suppose that it is occasionally performed with roughness, and even violence. I remember a few years ago seeing, in consultation with Sir Henry Marsh, a dragoon officer, who laboured under an affection of the ears, apparently of an inflammatory character, and, as he was himself unable to force air into the tympanal cavity, it was deemed advisable to resort to the operation which you have just witnessed. Accordingly, I desired an assistant to bring in the air press while I proceeded to arrange the other preliminaries, merely informing the patient that it was necessary to make an examination which would put him to a little inconvenience, but not cause any pain. He eyed the preparations with considerable anxiety, and at last exclaimed, "Oh! I know now what you are going to do, and I am determined not to have that thing rammed up my nose again; for the last time it was done I was put to such pain and bled so much that I fainted." You have heard of such things, no doubt, having occurred to rough and ignorant practitioners in their endeavours to force a catheter into the bladder. The mention, however, of the former circumstance is, I feel, sufficient to put you on your guard; and I think I need scarcely tell you, that, where such force and violence as that which I have detailed above were employed, the original object of the operation could not have been obtained.

The catheter was then introduced upon the left side, and nearly the same phenomena observed. The patient was ordered to take three grains of chalk and mercury with one of extract of hemlock three times a day until its influence upon the constitution was manifested. Leeches were applied to the external auditory openings, and counter-irritation, by means of frequently-repeated blisters, kept up behind the auricles.

Feb. 13.—The mercury acted rather briskly upon this man, but apparently with a salutary effect. His hearing is now very much improved; upon the right side he can hear the watch at an inch distance, where, as you may remember, he was not conscious of the ticking, even when it was pressed against the meatus; and upon the left side he hears at an inch and a half or two inches. Upon both sides, the external auditory passage is dry and scaly, as if covered over with an herpetic eruption,—a very common appearance in this locality upon the subsidence of an inflammatory attack. The tympanal membrane is still pinkish upon both sides; but it appears somewhat less dense and white since the time when first examined. The singing noise still remains, but is not so distressing. This patient stated that he had to go to sea next day; and he has not been seen at the institution since.

PRACTICAL OBSERVATIONS
ON THE
TREATMENT OF PERMANENT STRICTURE OF THE URETHRA.

By ROBERT WADE, F.R.C.S.,
Senior Surgeon to the Westminster General Dispensary.

(Continued from page 560.)

Potassa fusa, when used for the destruction of a stricture, instead of causing a solid slough, appears to exert its salutary effects by a process of inflammatory softening and dissolution of the thickened tissue forming the obstruction. A sufficiently free application of this caustic, to be effective in old hard strictures, is usually followed by more or less of a slimy muco-purulent discharge, at first generally with an admixture of blood, but soon becoming of a dirty white colour. The term abrasion, used by Mr. Whately, is not certainly the most appropriate to signify the effects of the caustic potash in the removal of strictures, for its action cannot be regarded as mechanical. The term appears to have been intended by him to express a slight solvent effect upon the surface of the stricture. Probably the best explanation of the action of these two caustics, when applied for the destruction of strictures is, that the nitrate of silver causes a slough often sufficiently solid to obstruct the passage of the urine, whilst the more solvent effect of the potassa fusa is quickly followed by a thick slimy discharge of the tissues which it has destroyed. The good effects of potassa fusa are often strikingly manifested in highly irritable, very vascular strictures, which readily bleed upon slight pressure by the bougie. In many such cases three or four mild applications of the caustic will often be found to remove both their irritability and hæmorrhagic disposition, so as to render them easily dilatable. In strictures strongly predisposed to spasm, if not firm and of long duration, it will be best to apply the potash at first in such small quantities that its action may be merely that of a powerful stimulant, which may remove their morbid irritability sufficiently to permit of their subsequent dilatation. I believe, however, that in the majority of such cases, where the disposition to spasm is strongly marked, that the caustic must be used in sufficient quantity to destroy the irritable surface of the obstruction. When a stricture has been so far removed by the application of potassa fusa as to admit the introduction of a middle-sized bougie, it will be best to discontinue the use of the caustic unless there should be difficulty in the subsequent dilatation, when an occasional application of the caustic will often be found serviceable. If potassa fusa be used with proper caution it will not cause bleeding of any consequence. Where patients are predisposed to rigors they may occasionally occur after the application of the potash; but the unarmed bougie, it must be recollected, in such constitutions, will often have the same effect. In truth, the application of the caustic alkali has generally a remarkable effect in preventing the occurrence of rigors. Two or three applications have frequently so much relieved the irritability of the bladder attending bad cases of stricture, that patients have very frequently called my attention to this improvement in their condition, which has taken place often some little time before the bougie has passed through the obstruction. Instead of being obliged to rise every hour or two in the night to pass their urine, as was the case previously to the application of the caustic, they have only been disturbed but once or twice for that purpose. In two cases of impermeable strictures lately under my care, in which rigors had frequently occurred from the introduction of the bougie, they happened but once during my treatment, and that was, in each patient, a few hours after, by the use of potassa fusa, I for the first time succeeded in passing an instrument through the obstruction. The administration of an opiate will, however, in general, prevent the occurrence of rigors. The cases in which I have found the potassa fusa advantageous may be generally described as—1st. Strictures having a cartilaginous hardness, and impervious to instruments; 2ndly. Strictures of long standing, which, although admitting the passage of a small bougie, bleed more or less freely on its introduction; 3rdly, irritable strictures. My views with regard to this method of treatment differ materially from those of Mr. Whately. I do not use the potassa fusa in all cases indis-

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criminately; but only in such as do not yield to simple dilatation. I have found it necessary to employ the caustic alkali, in many cases, in larger quantities than he recommended; the minute portions used by him having produced scarcely any perceptible effect upon strictures, which, however, yielded to its more free application. I have also found that the caustic may be advantageously used at shorter intervals than advised by that gentleman, which is frequently of no slight importance, especially to patients who have to come to London for treatment. I generally, as before mentioned, discontinue the use of caustic as soon as a stricture will readily yield to ordinary dilatation. As a general rule, it will be best to commence the use of potassa fusa in very small quantities, of the size of a common pin's head, especially in impermeable strictures. Very great care will be required in applying caustic of any kind where there are false passages; and in such cases, if the obstruction be beyond the straight part of the urethra, I use a curved canula for that purpose. Wherever false passages are known to exist, and where instruments have been regularly passed, before commencing the use of potassa fusa, the patient should be kept as quiet as possible for four or five weeks, by which time the false channels may have healed, or become so much closed as to be avoided with tolerable caution. Obstructions in the curved portion of the urethra, although requiring much care in the application of caustic, will usually be found more readily to yield to that remedy; or, indeed, to any other method of treatment than when situated in the straight part of the canal. Except obstructions caused by severe injury of the urethra when it has been forcibly pressed against the pubes, there are none, according to my experience, more difficult of management, whatever means may be employed, than hard, tight strictures of long standing, within the first four or five inches from the external orifice of the canal. In such strictures there is often considerable induration of the corpus spongiosum surrounding the obstruction, forming a firm zone of highly elastic tissue, which, although admitting of being stretched to a certain degree, yet, if further dilatation be attempted, irritation will ensue, and the contraction become worse. Where there is so much condensation of the corpus spongiosum, it cannot be expected that potassa fusa, or any caustic can be safely applied for its entire destruction; but a few mild applications of the potash will often so much lessen the irritability of the stricture as to permit the introduction of a moderate-sized bougie so as to afford relief from all the more troublesome symptoms of the disease. It is fortunate that cases of this description are comparatively of very rare occurrence; but it is as well to know that there are such, which, whether you treat them by dilatation simply, by caustic, or by cutting, have so strong a disposition to recontraction as to defy human skill to cure them. Some pains should be taken to ascertain the precise point to which these strictures will admit of being stretched without irritation, and then, the bougie having done all the good it can, should not be increased in size. Strictures in the straight part of the urethra, which consist principally of thickening of the mucous and submucous tissues of the canal, with but slight induration of the spongy portion, are in general just as easily removed by potassa fusa as those at the bulb. To prove that the good effects of potassa fusa in stricture have not been exaggerated by me, I shall relate briefly the principal cases in which I have used that remedy during the last year:—

Case 1.—H. B., Esq., about 36 years of age, first applied to me October 8, 1849. He had long suffered from stricture. Two years before his application to me, a very small silver catheter had been passed. The operation caused a little bleeding and severe pain, followed by considerable constitutional disturbance. This gentleman had been under the care of an eminent hospital surgeon, who made several subsequent attempts to pass an instrument through the stricture, but failed in all. The irritation of the bladder in this case was so great as to cause an almost irresistible desire of micturition nearly every hour, day and night. The urine was voided either by drops or in a very minute stream, with much straining. On examination, I found a stricture at six and a quarter inches, impassable to the smallest bougie, and which bled on being gently pressed by the instrument. I applied the potassa fusa, and repeated its application every second day. On the seventh application, made October 20th, the bougie, a No. 6, passed through the obstruction, which was more than half an inch in length, and felt hard and gristly. On my next visit (Oct. 22), an unarmed bougie of the same size was passed through the obstruction, but did not go on into the bladder. As the instrument was firmly grasped, I again used the potassa fusa. On my next attempt to pass a bougie, on the 24th, there was so much spasm, that the same-sized instrument did not go through the stricture. I therefore applied the caustic, and repeated its application on the 26th and 29th. On the 31st, I introduced without difficulty a No. 6 silver catheter into the bladder. I had no occasion to use the caustic again, as the stricture readily yielded to the introduction of the sound; and, on the 3rd of February, 1850, a No. 14, the full size of the urethra, could be passed with facility. The stricture, which, before the use of the potassa fusa, always bled more or less on pressure by the bougie, ceased to do so after the fourth application of the caustic, which also appeared to relieve, in a remarkable degree, the irritability of the bladder. This gentleman, who had occasionally suffered much from rigors, had only one attack during the treatment by potassa fusa. That attack occurred a few hours after the first introduction of an instrument into the bladder. I saw this patient a few days ago, when the No. 14 sound was passed with facility.

Case 2.—E. P—, Esq., 33 years of age, consulted me on the 4th of February, 1850. This gentleman had been annoyed with very troublesome symptoms of stricture for the last eight years, and had been for a long time under the care of an excellent surgeon, well conversant with the treatment of this disease, but who did not use caustic. This surgeon had occasionally succeeded in passing a small bougie into the bladder, but never could get beyond a No. 5. It usually happened, that for some time after the introduction of a bougie, the stricture remained so extremely irritable as to be impassable to the smallest-sized instrument. The perinæum had been freely leeched at various times; opiates by the mouth, also as suppositories, and in the form of enemata, had been used with but little benefit. The gentleman's health had suffered considerably, and, deriving no advantage from the means employed for his relief, despairing of improvement, he had given up all treatment fifteen months before his application to me, which was in consequence of an attack of retention of urine, from which he occasionally suffered. His urine had been passed for several months either in a very small stream, or by drops. On examination, I found a stricture at four inches, impermeable by the smallest bougie, and which bled on very slight pressure. After three applications of potassa fusa, at intervals of three days, the bougie, a No. 5, passed through the stricture, and stopped at a second obstruction at five and a half inches. This second stricture was hard and gristly, having required seven applications of the caustic before a bougie could be passed through it. Three days afterwards, I introduced with facility a No. 6 silver catheter into the bladder. No further application of potassa fusa was requisite, as the strictures readily yielded to the introduction of plated steel sounds; and on the 24th of June, I passed a No. 12, the full size of the urethra, without being able to detect any hardness. This gentleman's principal urinary distress was evidently caused by the stricture nearest the external orifice of the urethra, as, after that had been subdued by the potassa fusa, he suffered no pain, and passed his urine in a better stream than for many months previously. I saw this patient a few weeks ago, and passed for him the No. 12. There does not appear to be the slightest disposition in this case to a return of the strictures; but as a precaution, I have advised him to test his cure by an occasional introduction of the sound.

Case 3.—Captain F., aged 37, an officer of artillery, who had been several years in India, first consulted me April 16th, 1850. He had been a very great sufferer from stricture for the last twelve years, during which time he had been treated by different surgeons by the introduction of bougies and sounds. The passing of instruments, however, always caused so much irritation, that he derived but little benefit from their use. The gentleman who last attended him had succeeded occasionally in the introduction of a small steel sound, but the operation was always excessively painful, and followed by considerable hæmorrhage. No instrument had been passed for the last three years. The urine has long been voided with much difficulty, and usually with very great straining; it usually passes by drops, and the attempts to empty his bladder frequently continue for nearly half an hour at a time. For many years he has never been free from gleety discharge, and micturition is attended with a severe scalding pain, affecting chiefly the [illegible]

and a half from the external orifice of the urethra. Has had several attacks of gonorrhœa. The perineum has been freely leeched at times, but without affording him relief. I examined the urethra with a No. 3 plaster bougie, which stopped at two inches; a little pressure, however, caused it to advance another inch, when it was again arrested, but soon passed on to five and a half inches, where it was finally arrested by another obstruction. I applied the potassa fusa to the first stricture at two inches.

April 17.—Applied the potassa fusa to the second stricture.

18th.—The gleety discharge has rather increased, and is coloured with blood. A No. 5 bougie was passed to the third obstruction at five and a half inches, to which I applied the potassa fusa.

19th.—Had a rigor this morning. The patient had formerly suffered greatly from rigors. The urine is passed with but little straining. A warm bath and an opiate was ordered.

20th.—Less irritation; and the urine was voided in my presence in a continued stream. I passed a No. 4 plaster bougie into the bladder, but it was firmly grasped by the last stricture.

21st.—The urine is passed more freely and with less scalding. Captain F. said, he never experienced from any other treatment so much relief in so short a time. Applied the potassa fusa on a No. 6 bougie to the third stricture, which it entered.

22nd.—As there was rather more irritation than usual, the urethra was left undisturbed.

23rd.—The urine is passed better than it has been for several years. A No. 6 bougie passed through all the strictures; I applied the caustic on a No. 8, and repeated its application on the 27th. This gentleman was obliged to leave town unexpectedly the next day. He wrote to me from his residence in the country, not knowing how to proceed. I urged him to persevere in the use of the bougie. Being anxious to learn how he was getting on, I wrote to him in the early part of last August. In his reply he observes, "I can now pass a No. 9; the first stricture is gone, the others are better, as you may suppose, but not by any means well; still they are progressing." He added, that "he had been under the care of a great many professional men, but never received anything like the relief which he had done from the potassa fusa treatment." This gentleman stated, on his first application to me, that it would be impossible for him to remain in town more than a fortnight, or I should not have applied the caustic at such short intervals. The applications, however, were very gentle ones, and did not cause much irritation.

Case 4.—Mr. C—, about thirty-six years of age, applied to me May 12th, 1850. Has had symptoms of stricture for the last twelve years. The difficulty of micturition has lately very much increased, and he now passes his urine with great straining in a very fine stream, or by drops. Attributes his complaint to a protracted gonorrhœa. Examination disclosed a stricture at 5½ inches, through which I succeeded in passing a No. 1 bougie. 15th. Has voided his urine with rather less straining. I could not pass the No. 1 bougie; and, having been equally unsuccessful on the 19th, I on that day applied the potassa fusa, which caused no pain, but only a slight sensation of heat. 22nd. The urine has been passed better since the application of the caustic, and the irritability of the bladder, which previously caused him much annoyance, is greatly diminished. I first passed a No. 2 bougie easily into the bladder; and shortly afterwards, a No. 5, as readily. I applied the caustic but once more, which was on the 26th, the stricture having become easily dilatable. On the 16th of June I could pass a No. 12 sound, the full size of the urethra, and there was then no sign of stricture. I have no doubt that the two applications of the caustic alkali entirely removed the stricture, which, although but of slight extent, had been attended with great suffering. It may be satisfactory to state, that I passed the No. 12, some time afterwards for this gentleman, when the urethra appeared to be quite healthy.

Case 5.—E. S—, Esq., forty years of age, residing in the north of England, first consulted me July 16, 1850. He had been many years a great sufferer from stricture. The origin of his complaint he attributed to a severe gonorrhœa contracted in 1834, which lasted for several months. In 1836 this gentleman contracted another gonorrhœa, which left a gleety discharge, from which he has scarcely ever since been entirely free. His urine has not been voided in a full stream from the period of the first attack of gonorrhœa; and soon after the second occurrence of that disease micturition became so difficult as to render necessary an occasional introduction of a bougie. Mr. S— has ever since suffered more or less from stricture. Several attempts have been made by different practitioners to cure him by dilatation; but No. 7 is the largest sized instrument that any of them had been able get into his bladder. In 1844 this gentleman had a very severe attack of retention of urine, and then placed himself under the care of an eminent surgeon, under whose treatment he continued for eighteen months. The strictures were then so extremely irritable that for a long time no instrument could be passed through them; and a No. 5 bougie was the largest size that had been introduced at the expiration of the year and a half when he left his surgeon. Mr. S— was, for some time afterwards, able occasionally to pass for himself No. 5 bougie; but, for the last two years, his strictures have continued impervious to the smallest sized instrument. Has had occasional attacks of retention of urine for more than five years; and the last which occurred was unusually severe, but yielded at length to large doses of opium. The surgeon to whom the patient applied for relief for this last attack of retention having tried for six months ineffectually to get an instrument through the stricture, a consultation was held with the gentleman under whose care he had remained for eighteen months, when it was decided that his only chance of relief was the operation by perinæal section. It was under these circumstances that I was consulted. At this time the gentleman's sufferings were extreme, his urine being passed only by drops, and with very great straining, which lasted frequently half an hour at a time. He could not void his urine in the erect position, and was generally obliged to go to the water-closet for that purpose. Every attempt to micturate causes a partial erection of the penis, with severe scalding pain. On examination with a small bougie, a stricture was detected at 5½ inches, to which I applied the potassa fusa.

17th.—There has been no irritation from yesterday's application. I saw him pass his urine, in a thread-like interrupted stream; but he tells me that the straining is less than before the application of the caustic. I applied the potassa fusa on a No. 6 bougie, which soon entered the stricture into which it passed the eighth of an inch.

18th.—Has had a better night than for some months past, the irritability of the bladder being much diminished. He had taken a dose of castor oil, which acted freely at 10 a.m., at which time a considerable quantity of urine had been passed. On my visit, at 3 p.m., Mr. S. was endeavouring, but ineffectually, to void his urine, and the contractions of the bladder were very painful. I passed a No. 3 bougie through the stricture, but could not get it into the bladder, from its being too tightly grasped. The bougie was retained for about three minutes, and when withdrawn the urine followed in a very fine, continued stream.

8 p.m.—No urine had been passed since my visit at 3 o'clock, and the contractions of the bladder had again become urgent. I tried to pass a No. 4 bougie, but did not get it through the stricture; and, although the instrument was retained a short time, no urine followed on its being withdrawn. I then tried a No. 2, which passed with facility into the bladder. The bougie was retained for five minutes, and when withdrawn the urine followed in a continuous stream, the size of a crow's quill. The patient has been kept well under the influence of opium.

19th, 9 a.m.—Has passed his urine without difficulty. Applied the potassa fusa on a No. 6 bougie, which passed through the stricture, but stopped at another obstruction an inch beyond the first. 20th.—Applied potassa fusa to the second stricture. 21st.—Has had no difficulty in micturition, having been disturbed but once during the night. Applied potassa fusa to the second stricture, and repeated its application on the 22nd. On the 23rd I passed a No. 4 bougie into the bladder, and afterwards used the caustic. 24th.—As there was no irritation, I again applied the armed bougie. 25th.—The urine passes very freely. Applied potassa fusa, and repeated its application on the 26th and 27th. The urethra was left undisturbed until the 30th, when I easily passed a No. 6 bougie into the bladder. As the second stricture still felt very hard, and as the patient could only remain in town for three weeks from the commencement of my treatment, I applied the caustic, and used it four more times. On the 8th of August, I easily passed a No. 8 bougie into the

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bladder. This gentleman left London the following day, when he voided his urine in a good stream, the irritability of the bladder having entirely subsided. The patient promised to let me hear from him if he had the slightest difficulty in completing the dilatation of his strictures. I have not heard from him, therefore conclude he has suffered no further inconvenience.

Case 6.—W. S. B—, Esq., thirty-two years of age, residing in the country, first consulted me, September 7, 1850, and gave the following account of his complaint:—"Between seven and eight years ago I first suspected myself to be affected with stricture, and applied to a surgeon, who, after passing a small bougie, told me I had two strictures. At first I thought myself benefited by his treatment, and for a time cherished hopes of a cure, but these hopes soon gave way. Although a tolerable sized bougie could be passed, it seemed to have no permanent effect in enlarging the stream of urine; often it was very tightly grasped, especially by the first stricture, and sometimes was with difficulty passed at all. At length I gave up attending the surgeon, and having derived no advantage from the use of the bougie, my strictures have ever since been left undisturbed." This gentleman's urine is passed with difficulty in a small forked stream. On examination with a No. 5 bougie, it was stopped by a stricture at 5½ inches, to which I applied the potassa fusa, and repeated its application on the 9th and 10th. Before applying the caustic on the 11th, I examined the urethra with an unarmed bougie of the same size as had been previously used, when it passed through the stricture, and stopped at another 6½ inches from the orifice. As no irritation of consequence had been caused by the previous operations, I applied the potassa fusa to the second obstruction, which required three more applications before it became permeable. On the 15th I passed a No. 7 sound into the bladder, having the day before failed in getting it through the second obstruction. The urethra, from the last stricture to the bladder, felt hard and rugged; it seemed as if the instrument passed over a ridgy surface at the inferior portion of the canal. The sound was retained for half an hour. I had no further difficulty in dilating the strictures, being able to increase the size of the sounds daily; and on the 21st a No. 12, the full size of the urethra, was readily passed. The instruments were latterly retained for nearly an hour, and caused scarcely any irritation. A little mucous discharge, stightly tinged with blood was caused by the first three applications of the caustic. This gentleman could only remain in town for a fortnight, or I should have preferred proceeding more slowly; but there was fortunately no urethral irritation of importance during the whole treatment. The gentleman was desired to continue the use of the sound regularly for some length of time. The ridgy feeling behind the stricture had entirely disappeared, and the stream of urine was of a full size.

Case 7.—J. L., aged 42, admitted a dispensary patient, May 8, 1850. Has suffered much from stricture for the last twelve years, accompanied with more or less gleety discharge. During the last five years his urine has been voided with great straining, principally by drops, micturition usually occupying from a quarter to half an hour at a time. Has latterly been much annoyed by the urine dribbling away, especially when standing or sitting. Is seldom free for more than half an hour, day or night, from urgent calls to void his urine. This man had been for the last twelve months under the care of an excellent surgeon, who treated him chiefly by the steel sound. Upon only one occasion could any instrument be got through the obstructions, and that was about six months ago, when a very small steel sound appeared to enter the bladder. The operation caused severe pain, and rather free bleeding followed by so much urethral irritation, that his sufferings were increased; and ever since all attempts to pass an instrument through the first stricture have been unsuccessful. On examination, I found an impermeable stricture at three and a half inches, to which I applied the potassa fusa, and repeated the application four times before a No. 5 bougie could be passed through the obstruction. There was another stricture at five inches, which required five applications of the caustic before the same sized bougie could be passed through it. On the 28th of June I was enabled to pass a No. 8 bougie into the bladder, and on the 6th of July a full-sized steel sound. There was no irritation of consequence from the application of the caustic potass. The man has since occasionally attended at the dispensary, when a No. 12 sound has been readily introduced.

I have purposely stated, that the above-mentioned patients, before their application to me, had all been treated for a long time by surgeons of high character, to prove that dilatation had received a fair trial previous to the use of the caustic alkali, to which remedy must entirely be ascribed my success where others had failed.

[To be continued.]

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

KING'S COLLEGE HOSPITAL.

BY

HENRY SMITH, Esq., F.R.C.S.,

(Formerly House-Surgeon to the Hospital.)

AND

BY LIONEL S. BEALE, Esq.,

Medical Associate, K.C.L., late House-Physician to the Hospital.

CASES ILLUSTRATIVE OF VARIOUS POINTS IN CHEMICAL PATHOLOGY.

ANÆMIA DEPENDING UPON AMENORRHŒA.

RUTH WARMAN, a pale, anæmic looking girl, aged 16, was admitted into King's College Hospital, under the care of Dr. Todd, on January 1st, 1851. She is a servant, and has lately been subjected to much hard work. For the last five years she has lived in London, and has enjoyed very good health till within the last twelvemonth. The catamenia appeared at the age of 14, and returned at monthly intervals for the next year, when they entirely ceased for a twelvemonth, reappearing, however, about a fortnight before her admission into the hospital. She has never suffered from leucorrhœa or lumbar pain. About a year ago, when she ceased to be regular, she says that she frequently suffered from pain in the region of the heart, which was much increased upon any exertion, such as running up stairs or walking fast.

The patient appears to be plump and fat, but is very pale, and seems languid and incapable of any exertion. There is scarcely any colour in the cheeks, and the skin in other parts of the body is quite pallid. The lips and mucous membrane of the mouth, particularly that covering the gums and tongue, are very pale. She complains of very frequent attacks of headache, with a sensation of giddiness, and is now and then troubled with a sort of rumbling noise in the ears. She sleeps very well, but her appetite is not good; the bowels act pretty regularly.

Upon listening over the heart and large arteries, a very loud bruit can be heard, synchronous with the systole of the heart, and most distinctly audible towards its base. A loud venous murmur is also heard when the stethoscope is placed over the large veins at the base of the neck. This latter sound is continuous in character, and resembles a loud purring or blowing sound. The pulsations of the carotid and subclavian arteries are distinctly visible, and are somewhat of a jerking character. The pulse is readily compressible, but the beats occur very suddenly and with a jerking movement. Pulse, 88; respiration, 36. Urine of the natural colour, sp. gr. 1014. No change is produced by the application of heat or upon the addition of nitric acid.

She was ordered to take three grains of the citrate of iron dissolved in half an ounce of water, three times a day, with middle diet, and two ounces of wine.

On January 8th, the citrate of iron was increased to five grains three times a day, and she was kept upon this treatment as long as she remained in the hospital.

In this case the urine always appeared healthy; the pulse varied from 80 to 100; the tongue was usually clean, but very pallid. Her appetite became pretty good soon after her admission, but she was very frequently troubled with severe headache, and occasionally with giddiness and palpitation of the heart upon any sudden exertion.

On January 13th, the fifth day after she had been put upon the increased doses of the citrate of iron, Dr. Todd, being anxious to ascertain the amount of red corpuscles, and

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believing that the patient would not suffer from the abstraction of so small a quantity of blood as an ounce and a half, that quantity was taken and submitted to analysis.

The blood was not buffed, indeed the clot did not seem so firm as usual, but it readily separated from a quantity of clear yellow serum.

In 1000 parts I found.—

Water	865·28
Solid matter	134·72
Solids of serum	82·91
Fibrin	2·52
Blood corpuscles	49·29
	1000·00

Specific gravity of serum, 1026·5.

On January 20th, a marked improvement had taken place in her appearance. There was more colour in her cheeks, and the lips and gums did not appear so much blanched; the headache had entirely left her, and she felt much stronger. The bellows sound and venous murmur still continued.

On January 25th, the venous murmur had become less prolonged, was not so loud, and had more of a jerking character.

On February 12th, the bellows sound appeared softer.

It was now deemed advisable to ascertain what influence the treatment during the last month had upon the state of the blood, and accordingly two ounces more of blood were taken from the arm, and subjected to a similar analysis as on the previous occasion.

1000 parts contained:—

Water	836·46
Solid matter	163·54
Solids of serum	83·53
Fibrin	1·28
Blood corpuscles	78·73
	1000·00

Specific gravity of serum, 1026·1.

The solid matter of the serum contained 7·54 of fixed salts, which contained a large amount of soluble chlorides.

On March the 5th the venous murmur and aortic bruit were much less distinct, and she appeared to be improving gradually in every respect. The catamenia again appeared on the 9th, and lasted upwards of two days. At this time the venous murmur was scarcely audible, and she began to look quite healthy. On the 14th the venous murmur could no longer be heard, and the bellows sound had become very soft and faint. She was now again bled to two ounces.

In 1000 parts I found

Water	829·49
Solid matter	170·51
Solids of serum	82·03
Fibrin	2·69
Blood corpuscles	85·79
	1000·00
Specific gravity of serum	1026·5

The solid matter of the serum contained 8·203 of fixed salts, which contained much chloride of sodium.

The patient gradually progressed, and was discharged on March 22nd, having been nearly twelve weeks under treatment; during ten of which she had been regularly taking five grains of citrate of iron three times a day; which, in the ten weeks, would amount to 1050 grains, or to upwards of two ounces of the remedy.

The citrate contains about 34 per cent. of the sesquioxide, which corresponds to nearly 24 grains of metallic iron; 1050 grains of citrate of iron, therefore, contain about 357 grains of sesquioxide, or 247 grains of iron, which this patient had taken in a period of ten weeks. The quantity of blood corpuscles in 1000 grains had risen from 49 to nearly 86 grains, showing an increase of 37 in 1000 parts of blood in the same period.

When the last analysis was made the girl had not completely recovered, although her general appearance had very much improved. The amount of corpuscles was still small compared with that usually found in healthy blood, as may be seen by comparing the last analysis with the following, which is the mean of eight analyses of the blood of the healthy human female, by Becquerel and Rodier.

Water	791·1
Solid matter	208·9
Fibrin	2·2
Fat	2·2
Blood globules	127·2
Albumen	70·5
Extractive matters and salts	7·4

In anæmia, depending on amenorrhœa, the general characters of the blood are very similar to those met with in cases of anæmia arising from other causes. Loss of blood from any cause appears to lead to the same morbid condition of that fluid as the defective secretion or elimination of certain principles which ought to be separated from it. This latter condition is always fulfilled in amenorrhœa, which disease is by far the most frequent cause of anæmia in girls about the age of 20; and it appears the more remarkable, when the great similarity of composition of ordinary blood and of the menstrual secretion is taken into consideration. So that the same alteration in the constituents of the blood may be brought about by loss of blood, as in menorrhagia, or by the opposite condition of amenorrhœa, or suppressed menstruation. In these cases, the amount of water is usually much increased, and the quantity of solid matter proportionately diminished.

In both cases, the quantity of blood corpuscles is found to be much below that in healthy blood, while the proportions of the other constituents generally approximate to the healthy standard. Some observers have stated, that the amount of salts in the serum is increased in this condition; while, on the other hand, it has been asserted by others, that there is an actual diminution. In the present case, the quantity of salts, it will be observed, is rather increased; so also is the amount of the solid matter of the serum.

The amount of fibrin is about that usually present in health, but, relatively to the other constituents, it is considerably increased, being, in the first and third analyses, in the proportion of about 1·9 to 100 parts of solid matter, while in healthy blood it is scarcely more than 1·1 per cent. Jennings has observed a buffy coat, in cases of chlorosis, where there were no inflammatory symptoms whatever. He accounts for it by supposing that the relation of the fibrin to the quantity of corpuscles is the same as in inflammatory blood.

In the second analysis, there appears a considerable diminution in the proportion of fibrin. Whether this be the result of any accidental circumstances, perhaps influencing the changes which take place in the blood in respiration, it is difficult to say; but great variation in the quantity of fibrin in specimens of blood taken at short intervals of time from the same person, is frequently met with, without any very observable change in the character of the symptoms having occurred. Herberger made two analyses of the blood of a chlorotic girl, aged 20; in the first, he found 3·609 grs. of fibrin; and in the second, after the administration of chalybeates for eight weeks, only 1·950 were present in 1000 parts. (Quoted in Simon's "Animal Chemistry.") What is still more remarkable in my analyses is, that the fibrin should have again increased in quantity, as the reader will perceive by referring to the third analysis. This is a point, however, which has as yet been little studied, and I am not aware that any analyses of the blood have yet been made with reference to the variation in the amount of fibrin which may occur in healthy persons at short intervals of time.

L. S. B.

MEDICAL SOCIETY OF LONDON.—At the last meeting of this Society for the session 1850-51, it was resolved, that all members elected for the future should pay 1*l.* 1*s.* entrance fee, in addition to the annual subscription; and further, that those members who, after the meeting is over, partake of tea, coffee, etc. etc., should each pay 5*s.* annually as their contribution to the refreshment fund. These measures have been adopted, we believe, because the Society is in debt to a considerable amount.

METROPOLITAN CONVALESCENT INSTITUTION.—The funds of this valuable Institution have lately been increased by a donation amounting to 700*l.*, presented by a gentleman who gave the name of Charles Inglis. The name is supposed to have been assumed for the occasion.

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LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

Monday,	June 9.—Geographical Society, Half-past Eight o'Clock.
Tuesday,	June 10.—Royal Medical and Chirurgical Society. Half-past Eight o'Clock. Zoological Society. Nine o'Clock.
Wednesday,	June 11.—Geological Society. *Subjects*:—1. G. W. Ormerod, Esq., F.G.S., "On the Permian Strata at Astley, Lancashire." 2. Colonel Sykes, F.G.S., "On Fossil Fish from the Deccan, India." 3. J. Tristram, Esq., F.G.S., "On the Physical Evidence of an Arctic Climate during the Formation of the Erratic Tertiaries of Great Britain."—Half-past Eight o'Clock.
Friday,	June 13.—Royal Institution. Nine o'Clock.

THE MEDICAL TIMES.

SATURDAY, JUNE 7.

PROPOSED CHAIRS OF MILITARY SURGERY.

M. Thiers remarks, that in ordinary histories of war we see only armies completely trained and ready to enter into action; but it can scarcely be imagined, by those who know war only through books, what efforts it costs to bring the armed man to his post, equipped, fed, trained; lastly, cured, if he has been sick or wounded. All these difficulties are increased in proportion to the change of climate, or to the distance which the army moves from the point of departure. Most Generals and Governments, he says, neglect this kind of attentions, and their armies melt away visibly. Those only who practise them with perseverance and skill find means to keep their troops numerous and well-disposed.

In the noble "History of the Peninsular War," by Sir William Napier, will be found many lessons which Governments and Generals would do well to remember; but neither are given to acquire lessons from experience. "War," he says, "tries the strength of the military frame-work; it is in peace the frame-work itself must be formed, otherwise barbarians would be the leading soldiers of the world. A perfect army can only be made by civil institutions, and those, rightly considered, would tend to confine the horrors of war to the field of battle, which would be the next best thing to the perfection of civilization, that would prevent war altogether."

Of all the institutions which peace alone can perfect, in order to make a perfect army, none is more within the power of the State to arrange, nor less attended to by statesmen, during peace, than the medical arrangements of our fleets and armies. In time of peace our authorities do nothing, and the result is that, "in the beginning of each war, England has to seek in blood the knowledge necessary to insure success; and, like the fiend's progress toward Eden, her conquering course is through chaos followed by death."

We have had our experiences: we have had our Walcheren expedition,—the greatest that ever left the shores of England,—with the result of destroying on the spot one-third of a splendid army, and of destroying the health and future efficiency of the survivors. The sickness alone amounted to 587 per thousand of the strength; while the money expended was twenty millions sterling, with a burden of one million of annual taxes.

"That ignorance," says the *Edinburgh Review*, "which every Middleburghian, any Dutchman could have enlightened or dispelled, cost us ten thousand brave men, not a little money, and not a little credit, and not a few tears and inconveniences to those whom statesmen never consider."

We have had further from home our expedition to Rangoon, which destroyed on the spot 73 per cent. of the British soldiers, and which cost fifteen millions sterling in money; and all because we made war without one particle of knowledge,—without knowledge of the people, their government, resources, or habits,—without any knowledge of their country, of its topography, climate, or productions. More recently, but still further from home, we have had our expedition to China, with a horrible sacrifice also of the lives of the British soldiers. In China, as at Rangoon, the helpless but heroic soldier breathed malaria and fed on rotten rations till he perished miserably; but in China the sacrifice had no excuse. *There* the rice-grounds need not have formed the camp, and cattle were procurable in abundance; but healthy towns were not occupied by our men, and fresh meat was not served to them out of respect to the prejudices of the Chinese, who never had any prejudices. Thus, through the blundering of an ignorant commander, who did not know the difference between a Buddhist and a Brahmin, the British regiments were destroyed.

But why all these horrors? Let the historian of the Peninsular war again speak:—"Why all this striving in blood against insurmountable difficulties? Why were men sent thus to slaughter, where the application of a just science would have rendered the operation comparatively easy? Because the English Ministers, so ready to plunge into war, were quite ignorant of its exigencies; because the English people are warlike without being military,—and, under the pretence of maintaining a liberty which they do not possess, oppose, in peace, all useful martial establishments."

It resulted from this state of things, and it still results, that the Medical Officers of our fleets and armies were, and are still, permitted to enter upon their most difficult and responsible duties unfit to serve, as John Bull declared in 1798. "Shoals of hospital mates and students," says Napier, "were indeed sent out, and they arrived, for the most part, ignorant alike of war and their own profession; while a heterogeneous mass of purveyors, and their subordinates, acting without any military organisation or effectual superintendence, baffled the exertions of those Medical Officers, and they were many, whose experience, zeal, and talents would, with a good institution to work upon, have rendered this branch of the service most distinguished. *Nay, many even of the well-educated surgeons sent out were, for some time, of little use, for superior professional skill is of* LITTLE VALUE *in comparison of experience in military organisation: where one soldier dies from the want of a delicate operation, hundreds perish from the absence of military arrangement.*" The italics are ours.

Now, for anything that sophists, or Secretaries of State, like Canning, may do to the contrary, we are sure to have the old errors and neglects repeated so often as we may employ our soldiers in war. It is not, therefore, to such official persons, but to the Profession and the Public that we would address ourselves; and to both we earnestly recommend the consideration of the necessity of instruction in military surgery and medicine. It is well known that for many years past, under vast personal exertions, and with but little or no reward, Sir George Ballingall has delivered most able and useful lectures on Military Surgery, in Edinburgh. These lectures, and Sir George's admirable work on the same subject, are well known and duly appreciated by all naval and military surgeons. But when shall we have our Professorship for Military Surgery in one of our great schools of London? Is instruction of the most necessary

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kind to be confined to the gentlemen who have to treat Her Majesty's horses, to use the words of Mr. Guthrie? How long are our seamen and soldiers to be treated in war by inexperienced hospital mates? We must, as usual, refer this important matter to the Legislative branch, there being, as Robert Jackson said of old, no hope from the Executive.

We trust the Government will bear in mind that all the old Surgeons of the Army and Navy speak loudly and painfully to their personal experiences in actual service.

HOMŒOPATHY IN EDINBURGH.

To the disgrace of that seat of learning, a homœopathist has been allowed to retain for years a Professorship in the University of Edinburgh. To the disgrace of the Royal College of Physicians of Edinburgh, the same man has been permitted for years to rank among its Fellows.

At length the latter body has spoken; and although it has not expelled Dr. Henderson, it has announced that it has the power of dealing summarily with such as he, and that should it be so advised, it will exercise that power. Dr. Henderson may be made of tough materials, he may not have an over high sense of honour; in fact, we know that he has not, or he would long since have severed his connexion with a College and an University, where he must have been conscious that his presence was highly offensive; he would have yielded up a chair he had obtained by the profession of principles he now repudiates, and the Fellowship of a College to which his present brethren have been refused admission; but, however obtuse his perceptions may be, he will be able to comprehend the notice he has now received to quit the College of Physicians. "The College expresses an earnest hope that those Fellows who belong to the denomination of homœopathists will spontaneously sever their connexion with an Institution which repudiates them." Plain language this, Dr. Henderson! "The College reserves its right of dealing summarily with homœopathic practitioners who have become such subsequently to their admission to the College." No less plain language this; and yet, unmistakeable as is the meaning of the notice, we doubt if Dr. Henderson will *resign* his Fellowship. We suspect he will have to be kicked out, ere he *willingly* quits "his false position;" that he will have to be bid "stand and deliver," ere he yields up the little "spurious credit" he employs in his tradings.

But suppose Dr. Henderson forcibly expelled from his Fellowship, what steps will the University adopt? Will they permit a man to continue to poison the streams from which their graduates are *compelled* to draw knowledge? Will they allow a homœopathist to teach pathology, and *compel* the students to attend his prelections? Will they allow a Chair to be held by one expelled for his practices from the Royal College of Physicians, and bid students, *nolens volens*, listen to his teachings? Time will show; but of this much they may rest assured, that should they make no effort to drive this homœopathist from the Chair of Pathology, the Profession will begin to consider whether it is advisable to send their sons and pupils to an University which enforces attendance on his lectures. Let the Senate look to this matter, or ere long they may find the University experience a diminution in the number of its students.

There is one part of the resolutions agreed to by the Edinburgh College of Physicians, and subsequently adopted by the College of Surgeons of the same city, to which we beg to direct especial attention,—we allude to the paragraph which runs thus in the third Resolution of the College of Physicians:—"No Fellow of this College, or any other physician can, by any possibility, without derogating from his own honour, and from the honour of the Profession, meet practitioners of homœopathy in consultation, or co-operate with them in the other common duties of professional life." And to that which the College of Surgeons have worded as follows: "Any Fellow or Licentiate who practises Homœopathy, or countenances others in doing so, by meeting them in consultation, will justly incur the disapprobation of the College."

Surely these acts of the Scotch Colleges will arouse the slumbering London Colleges. The Colleges of Physicians and Surgeons must now take some steps to drive from their halls the men who meet daily in consultation professed homœopathists. If peers and peeresses will have Dr. Quin's globules, let them; but if Dr. Greatman gives importance to the said Dr. Quin by meeting him in consultation, let the Colleges take some steps to deprive the said Dr. Greatman of his present position, and so to deprive him of the power to give importance to Dr. Quin, or any other globulist.

If the London Colleges are to retain any hold upon the respect of the practitioners of this country, they must move in this matter, now become a crying evil; and if they speak, they must be prepared to act; for the men to whom we allude, would no more mind paper missiles than did the New York squatters the Proclamations of the Governor whose doings have been chronicled by Diedrich Knickerbocker.

The practitioners of England will have the men who sacrifice the honour of the Profession on the shrine of Mammon held up to the scorn they deserve; and if the Colleges, whose duty it is to watch over that honour, refuse to punish them, then must the masses take the matter into their own hands.

No petty jealousies shall stand in our way. Cordially will we co-operate with all who honestly strive to place in their true colours before the Profession men arrogating to themselves the name of "Heads of the Profession"—men who say to the General Practitioner, "Stand by, for I am worthier than thou!"—men whose everlasting chant is "Odi profanum vulgus!" and who yet yield a principle for lucre, and barter honour for gold.

THE HONORARY DISTRICT ACCOUCHEURS OF ST. MARY'S HOSPITAL.

In last week's number of our Journal, an advertisement appeared from the Secretary of St. Mary's Hospital, canvassing for legally-qualified practitioners to become "Honorary District Accoucheurs" of that Institution. This is a novelty; and, as all innovators are said to be endowed with an unusual share of boldness, we give credit to the originators of this scheme for at least the ordinary allowance of this enviable qualification. What a generous opinion must they not have of the simple-minded disinterestedness of their medical brethren, to suppose that any respectable legally-qualified practitioner can be found, who, at the order of the Hospital Secretary, would magnanimously watch during the long and dreary nights of January at the bedside of a parturient woman, and undertake all the risk and responsibility of the case, in the hope of being liberally rewarded when the Annual Report shall be published, with such a gratuity as is often offered as a bribe to good children,—a silver new nothing, and what is worth no more,—the thanks of the Committee! This announcement looks very much as if the accoucheurs *en chef* feared that they would have no cases whereupon to exercise

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their skill and abilities, and were anxious to organise a body of touters,—a sort of professional jackals, to provide for these lions the necessary quarry. This is too bad; but still it is not the worst view of the case.

These "honorary district officers" can obtain patients only by attending female paupers, for whom the Union medical officer now gets his 10*s.* 6*d.* a case, or by attending their own guinea cases for nothing! They must either wrong their neighbours or themselves; and in either event would not become objects of respect. Such proceedings will not fail to rouse a host of enemies to the Hospital among the medical men in the vicinity, and we ask the Board to pause before they carry into operation a scheme that will tend seriously to damage the success of the Institution. That there may be notoriety-hunting practitioners in the neighbourhood, who would be willing to speculate upon the indirect advantages of an honorary appointment—however questionable indeed the honour of it—we admit; but it does not become a Committee of gentlemen to seek for success by descending to solicit the support of the least reputable portions of surrounding society.

The name of charity has been often abused, to wring from medical men their unpaid services to the public. No class of men are called upon to make so many sacrifices on this pretence as the members of our Profession. Local Societies for ministering aid in sickness spring up under various forms, in every district, and, as a matter of course, some benevolent bachelor or charitable old maid waits in each instance upon the medical men of the neighbourhood, with a request that they will become Honorary Officers, as without their generous support the proposed model of mercy cannot possibly be sustained. It would be a very cruel thing to refuse; the medical man heaves a sigh of sympathy, and yields his consent to the tempter. Thus the evil is insinuated and maintained. We do our duty by pointing it out, but it can be corrected only by an united attempt on the part of the Profession to resist to the uttermost all such piratical designs upon their kindliness and skill. The lawyer will not give his services for nothing, nor will the clergyman bury for nothing the child whom perchance the medical man has attended, day by day, during a protracted sickness, for nothing; and why the latter should be required to perform, as a benevolence, acts similar to those which the members of other Professions perform for payment, it is not easy to conceive. Competition, however, appears to be the cause of the evil; and we lament it the more, when we find members of our own Profession, holding distinguished positions, willing to take advantage of our infirmities.

THE "EDINBURGH MONTHLY JOURNAL."

In our impression of the 10th of May, we stated that the *Edinburgh Monthly Journal* "was drawing on a sickly existence." It has since been suggested to us, that the sale of that periodical had improved. We have, therefore, felt it our duty to make inquiries on the subject; and we learn from the London publisher, that the sale of the *Edinburgh Monthly Journal* has considerably increased during the last twelvemonth.

THE GREAT EXHIBITION.

OBJECTS CONNECTED WITH THE THEORY AND PRACTICE OF MEDICINE AND SURGERY.

[FOURTH NOTICE.]

The pharmaceutical series is sufficiently extensive, but it is extremely difficult, if not impossible, to speak with any degree of certainty of the quality of the preparations by sight alone; and as the whole of these preparations are enclosed either in closed bottles or glass cases, no other sense can be employed in estimating their properties. Our readers must for this reason be contented with a running commentary on the names of the preparations and exhibitors.

Mr. Austin, of Banbury, exhibits some concentrated infusions and decoctions, which, so far as we can judge, appear to be good. The only object worthy of notice in the collection of Mr. Greenish, are the syrup and pills of super-phosphate of iron, lately recommended as a valuable addition to our ferruginous preparations by Dr. Routh; but of the use of this salt we have no personal experience. Mr. Bell presents to our notice the tincture and resinous extract of the Indian hemp; also a very fine series of the volatile or essential oils, containing all the more common kinds, and, in addition, the oil of ginger-grass Andropogon Calamus; that of Gualtheria procumbens; of Andropogon Schœnanthus, or lemon grass; of Andropogon citratum, or citronella; of Sirium myrtifolium, or white sandal wood; and the oils of the root and leaf of cinnamon. Mr. Squire exhibits his numerous preparations of extracts, inspissated juices, and concentrated infusions of most of the more active remedial agents, the careful preparation and active properties of which are well attested. He also exhibits his infusion pot and ether or chloroform inhaler. Lea, of Calais and Oxford-street, has a liquor of a yellow turbid appearance in a bottle, labelled "Myrrhine," prepared from myrrh, "which enables the stomach to part with any quantity of food without inconvenience or injury to the digestive organs!" A very convenient and valuable boon to gourmands, we should say, if the assertion that any medicinal agent has the power of enabling the stomach to do double its ordinary duty without injury were not false. By the side of this myrrhine, we may place the Æsculapian elixir of somebody or other, which ought certainly not to have found admission into the Exhibition, unless the whole tribe of quackeries were permitted to deck the tables.

Mr. Bass exhibits his series of concentrated infusions, decoctions and extracts, the value of which is universally known.

(57) This case contains inspissated ox-gall, some very good extracts, some powdered digitalis leaves of grass-green colour, fine extract of elaterium, together with a specimen of muriate of morphia, in masses of acicular crystals. The presence of bottles of Sir J. Murray's fluid magnesia, or solution of bicarbonate of magnesia and fluid camphor, must here be noted.

Before leaving this portion of the collection, we must draw attention to Mr. Oyler's specimens of lint of different qualities and thicknesses, which appear to be very excellent, so far as sight will enable us to judge.

We now proceed to notice the second class into which we have divided our department of the Exhibition, and in which we have placed the chemical preparations. The specimens here presented to our notice are the most magnificent it has ever fallen to our lot to examine. Never have we seen, in any of the collections employed to illustrate the courses of lectures in any of our public institutions, anything approaching to these in purity and beauty of crystalline form; and we cannot hesitate to accord to our pharmaceutical chemists the highest possible meed of praise for their public spirit and determination not to be outvied by those of other nations.

Proceeding in the order we have hitherto followed, we may notice, among the chemical preparations exhibited by Mr. Bell, a very fine cone of mannite, the saccharine principle of the manna of the shops, an exudation from the fraxinus excelsior in the south of Europe, also contained in some vegetable juices and roots; but which may be obtained artificially from sugar by the action of a caseous ferment at temperature between 86° and 104° Fahr. Under these circumstances, mannite and lactic acid are formed in place of the ordinary products of fermentation, alcohol and carbonic acid. It is extracted from manna by simple solution in hot alcohol and crystallization. The specimen shown by Mr. Bell has much the appearance of a cone of loaf-sugar; is quite white, but in a state of imperfect crystallization. Whether this specimen was obtained from manna, or formed artificially, it is impossible to determine by mere inspection. The remaining specimens exhibited by Mr. Bell are two large blocks of common salt (chloride of sodium), in the ordinary condition; a large mass of crystals of the same substance in imperfect cubes; a solid cake of iodide of iron under a glass

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shade; a very fine, perfectly white specimen of benzoate of ammonia, in long square prisms and square tables. Mr. Bell, we presume, exhibits, also, specimens of potato-starch, and a series of products from this substance. The products are dextrine, or starch-gum, labelled "gum substitute," which forms a clear white mucilage, starch-sugar, which is perfectly white but uncrystallizable. On the starch sugar, it may be remarked, that this substance is obtained by acting on starch with dilute sulphuric acid at a boiling temperature, or by the action of diastase. The starch-sugar differs from cane sugar in its incapability of perfect crystallization, in having a much less sweet flavour, and in having the same composition as grape sugar. It has been manufactured on a large scale, and employed for the adulteration of cane sugar. The ultimate product of the oxidation of starch or sugar by nitric acid is oxalic acid, of which a specimen in good crytals and very white is exhibited. In the same series are wax obtained from wheat-starch, and, what we could not well comprehend, a substance labelled "gum from inorganic substances." We were not aware that gum had been directly compounded from truly inorganic matter; but, if the statement be correct—which we very much doubt—then has Mr. Bell achieved a discovery of equal importance, in a theoretical point of view, to Wöhler's artificial formation of urea by the metamorphosis of cyanate of ammonia. We suppose the exhibitor means to say, gum extracted from some mineral substance of organic origin. A large mass of crystals of common salt in cubes and octohedra is also exhibited by this gentleman.

We next arrive at the beautiful collection of crystals exhibited by Mr. Copney. Many members of the Profession will be astonished to see single prismatic crystals of sulphate of magnesia six or seven inches in length by an inch and a half in diameter, terminated by dihedral summits, differing so much in appearance from the minute crystals of the common Epsom salts. Near these is a group of crystals of the ferrid-cyanide of potassium, or red prussiate of potass, used chiefly as a chemical test, and in the manufacture of one of the forms of Prussian blue. The crystals are rhombic prisms of very large size, and of a deep red colour. This salt, like the ferrocyanide, seems to be a favourite among the exhibitors, probably on account of the facility with which large and perfect crystals are produced. But, by far the most beautiful among Mr. Copney's crystals are those of the alum series, illustrative of the law of isomorphism. Common alum, it is well known, is a double sulphate of alumina and potass, consisting of one equivalent of sesquisulphate of alumina, with one of sulphate of potass and 24 equivalents of water, giving the formula ($KO, SO_3 + Al_2 O_3\ 3\ SO_3$) + 24 aq. But an alum may exist containing neither alumina nor potass, and yet possess the same crystalline form, and many of the properties of common alum. Thus the potass may be substituted by soda or ammonia; the alumina by the sesqui-oxide of iron or chromium; and the sulphuric acid by selenic or some other acid isomorphous with the sulphuric. The law of isomorphism, as educed by Mitscherlich, declares that there exist certain groups of substances having a similar chemical constitution, which may replace each other in a salt without changing its crystalline form, and in many instances without alteration of its sensible properties. The operation of this law is exemplified by four octohedra of alum, of perfect shape and large size, the base of each being about three inches in diameter. These consist of potass alum, of which the formula has been already given; of chrome alum ($KO, SO_3 + Cr_2 O_3, 3\ SO_3$) + 24 aq., of a deep red colour, and by other crystals obtained from mixed solutions of these two salts, one of the crystals having a nucleus of common alum, covered by a puce-coloured layer of the mixed alum. Mr. Copney also exhibits very fine crystals of citric acid, the forms of which appeared to be, so far as we were enabled to examine them, modifications of the rhombic octohedron. Crystals of sulphate of copper, the primary form of which is an oblique parallelopiped, here reduced to nearly a tabular form, by the edges in one direction being replaced by planes, complete Mr. Copney's collection.

The collection of alkaloids exhibited by Mr. Morson are and must be unrivalled for quantity, purity of colour, and beauty of crystalline form. Sulphate of cinchona and morphia are crystallized on baskets, much as alum and sulphate of copper in the fancy crystalline baskets often seen as chimney ornaments. These specimens are at the top of the case, so far distant from the eye that we were unable to distinguish their crystalline form. A large quantity of gallic and tannic acids, the former in very white small acicular crystals, the latter in balls of a yellowish tint. Large specimens of iodide of morphia, in splendid acicular prisms; the hydrochlorate of the same base in nests of fine white feathery crystals; the sulphate in minute needles, rather yellow; and pure morphia, in small crystals, the shape of which could not be distinguished through the glass. In the same case is seen an exquisite specimen of Codeia, in very large crystals, some of which are regular octohedra. Veratria is shown as an amorphous clear white powder. Strychnine and its sulphate, the former in small white crystals, the latter in very long colourless acicular prisms. Aconitina perfectly colourless. Very fine specimens of pyrogallic acid in crystalline scales. The specimen of hippuric acid is very fine and white, but the crystals are small and imperfect,—much smaller than we have ourselves obtained. That of salycylic acid consists of minute needles. Valerianate of quinine is in nests of small thin plates.

[To be continued.]

REVIEWS.

Cases in Midwifery. By the late JOHN GREENE CROSSE, M.D., F.R.S. Arranged by EDWARD COPEMAN, M.D., F.R.C.S., Consulting Accoucheur to the Norwich Lying-in Charity. Pp. 228. London. 1851.

The cases detailed in this work occurred in the private practice of the late Dr. Crosse, of Norwich; a few of the remarks on the cases are also by Dr. Crosse, but the majority of the commentaries are by his pupil, Dr. E. Copeman, to whom Dr. Crosse confided his manuscripts.

The subjects illustrated by the cases are—

Abortion; diseases of the soft parts complicating labour; displacement of the soft parts complicating labour; difficult labour, requiring vectis or forceps; difficult labour requiring turning; difficult labour requiring embryotomy; spontaneous evolution; artificial premature labour; placental complications; injuries to soft parts; diseases occurring in consequence of labour; concomitant diseases; diseases and injuries of infants.

The cases here narrated will be found useful as guides or warnings, not only to the young, but also to the experienced practitioner. We are sorry to find Dr. Copeman advocating the use of the vectis "for rectifying the position of the head in cases where the face is inclined towards the pubes." The vectis is a dangerous instrument, and the young practitioner cannot be too strongly warned against its use for any such purpose as that for which it is recommended by Dr. Copeman.

Instruments were used by Dr. Crosse for one case out of every 16½ that he attended, and by Dr. Copeman for one in every 9¼. Our readers will remember, that, in the practice of the Maternity Charity, they were used once only in every 729.4 cases. Dr. Crosse allows, that in his earlier days he employed instruments "more frequently than he ought to have done;" and there are few who read these cases but will be of the same opinion. Dr. Crosse preferred the forceps to the vectis. Dr. Copeman says:—

"In my hands the vectis is incomparably the better instrument, for it has so constantly answered my purpose that I have had no occasion to resort to the forceps." "My impression is that I can deliver any case with the vectis that I could with the forceps, and many that I could not."

In cases of placenta prævia, if much hæmorrhage has occurred, so much as to render it highly probable that the child is dead, then Dr. Copeman recommends the placenta to be removed before the child; if little blood has been lost then he advises the old mode of delivery to be adopted. Dr. Copeman states as a fact, that if the placenta be removed before the child, the latter *must* necessarily be still-born. Do facts accord with this dogma?

The cases of course do not admit of condensation.

The following observation is of some interest in more than one respect:—

"*Case* 100.—H., aged 37; seventh pregnancy; 6½ months;

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child alive and vigorous, weighed 4 lbs. This infant weighed at the end of the

	lbs.	oz.
First week	4	2
In three weeks	5	12
Five weeks	6	8
Six weeks	7	6
(a)Seven weeks	7	10
Eight weeks	8	9

On Syphilitic Eruptions, with Especial Reference to the Use of Mercury. By THOMAS HUNT, M.R.C.S. Eng., L.S.A., etc.

The author, after denying that mercury ever produces a disease resembling syphilis, proceeds to state that "syphilitic eruptions, like other forms of lues, generally discover, if left to themselves, a tendency to persist (with occasional intermission) through life; and they may be transmitted by either parent to the children."

He believes "spontaneous recovery from syphilis" to be nothing more than a recovery *by tolerance*, consisting merely in the temporary abeyance of the diseased action. Some remarks are made respecting the transmission of the disease to children, which require confirmation. They are important if true. He believes that mercury has the power, if given in sufficient doses, of destroying the poison, so that there shall be no danger of its development in the child. He has seen syphilis in infants and in children of all ages, where the father had married after an apparent cure had been effected by the non-mercurial treatment of the disease. After marriage secondary eruptions made their appearance. These were treated mercurially, and the result was most instructive. The wife escaped, as did also the children begotten after the mercurial treatment of the father; but the children begotten before the mercurial treatment were infected.

We cannot say that our own experience confirms the truth of this statement in all its bearings. We have seen infants suffering from syphilitic eruptions, whose mothers had previously undergone mercurial treatment. It were greatly to be desired that an opinion so definite as the above could be entertained with confidence.

We might feel disposed to question Mr. Hunt's diagnosis in one or two instances. For example, a tradesman is suffering from disease of the hip; he never has had syphilis, but his father died of it, and he, as a child, had been subject to "scurvy," "brownish spots," &c. Upon what ground does Mr. Hunt assume that this man's disease is "syphilis"?

Mercury is a most valuable medicine in the treatment of syphilis, and the rules given in this pamphlet for its administration may be perused with interest and advantage.

The Prescribers' Pharmacopœia; containing all the Medicines in the New "London Pharmacopœia" of 1851; arranged in Classes according to their action, with their Composition and Doses. By a PRACTISING PHYSICIAN. Fourth edition. London: 1851. 12mo. Pp. 132.

This is one of the most useful little books with which we are acquainted, and so, it seems, the Profession have estimated it, for three large editions have been exhausted in a few years.

The object the compiler had in view, and which object he has attained, was to arrange, under the head of tonics, astringents, acids, &c., the different drugs and preparations contained in the "Pharmacopœia," referable to those several heads; so that if the Practitioner required to prescribe,—say an astringent,—by looking to that head he might see, at a glance, all the drugs possessing astringent properties, their officinal preparations, and their doses; *e.g.*, under the head astringents, we find—

"Acidum gallicum, (gallic acid, from galls; crystals, soluble in 100 parts of cold water.)

"Dose: Gr. ij., v., xv. (see Anthelmintics).

"Acidum tannicum. Tannic acid, from galls, (very soluble in water).

"Dose: Gr. ij., v., xv.

"Alumen, (alum, sulphate of alumina and potassa).

"Dose: Gr. v., ʒj.

"Form: Solution, (in aromatic water; an ounce of water dissolves ʒss.), pill, powder.

"NOTE.—Alum whey: boil powdered alum ʒij. in a pint of milk, and strain. Dose, a wine-glass full.

"In compatibles—Alkalies and their carbonates, tartrate of potash, vegetable astringents.

"1. Alumen exsiccatum, (dried alum).

"Dose: Gr. v., x.

"Form, solution, pill.

"2. Liquor aluminis compositus, (see Part II.).

This little book must find its way into the pocket of every Practitioner who boasts not of the memory of a Pascal.

An Apology for the Microscope; being the Introductory Lecture to the First Course on Microscopic Anatomy and Pathology delivered in the Theatre of the Original School of Medicine, February, March, and April, 1851. By ROBERT D. LYONS, M.B., T.C.D., L.R.C.S.I., ex-Clinical Assistant to the Meath Hospital, Lecturer and Demonstrator of Anatomy in the Original School of Medicine, etc. Dublin: 1851.

As a class, the Irish students who visit their sister country are good anatomists; and we may fairly infer from thence, that in this department they have been under the care of able teachers. The title, however, of the pamphlet here reviewed, strikes us as curious:—"The Introductory Lecture to the *First* Course of Microscopic Anatomy and Pathology, delivered in the Theatre of the Original School of Medicine, 1851." Knowing what the microscope has effected in every department of physical science, what new light it has thrown on physiology, and how more correct, through its aid, are our views upon pathology, we should have felt the interest of an antiquarian in listening, in the 19th century, to the mediæval doctrine taught in a school where the use of this instrument was unknown.

Dr. Lyons deserves great praise for urging, in forcible and elegant language, the necessity that the Irish student in medicine, and even practitioners generally should cultivate this department of their profession. He tells us the reply made to him by M. Gluge, when asked his opinion of the true value of the microscope to the investigator of disease, was, "C'est un moyen de plus;" and he illustrates this statement by reference to the facilities which it affords us in the determination of the characters of urinary deposits. We hope to see the subject taken up in Dublin with the enthusiasm characteristic of the nation; and we wish Dr. Lyons the success which he seems so well to merit.

Practical Remarks on some Exhausting Diseases. By Sir JAMES EYRE, M.D., Licentiate of the Royal College of Physicians, etc. Pp. 110. Second edition. London, 1851.

Although the use of the oxide of silver as an astringent in passive hæmorrhages, etc., was not first recommended by Sir J. Eyre, yet it is to the first edition of his little book that the Profession are chiefly indebted for their knowledge of its value. The second edition, just out, contains the result of Sir J. Eyre's experience since 1846. The efficacy of the remedy is illustrated by numerous cases, *e.g.*:—

"*Case* 7. Mrs. A., aged 38.—September 11, 1850.—Has been much weakened by frequent child-bearing; had never been free from hæmorrhage a day during the preceding four months. Prescribed half a grain of the oxide as before; the hæmorrhage was restrained almost at once, and the next two periods passed off well, being only a day and a half each time."

The dose of the oxide is half a grain three times a day.

Dr. Hooper's Physicians' Vade Mecum: or, a Manual of the Principles and Practice of Physic. Pp. 576. New Edition. By WM. AUGUSTUS GUY, M.B., Cantab. London, 1851.

The original of this work, as it came from the hands of Dr. Hooper, enjoyed an extensive popularity. Dr. Guy has considerably improved the present edition. As it now stands the work consists of two parts. The first is divided into four chapters. In the first chapter, headed health and disease, are given definitions and explanations of terms, and practical observations on the circumstances which exercise the strongest influence on the human body in health

(a) During this week he was not well.

and disease. An outline of Physiology and General Pathology forms the subject of the second chapter. The method of analysing the urine and the blood; and of examining the the chest, abdomen, pulse, and respiration, are described in the third; while the last chapter contains a brief outline of General Therapeutics. The whole of this part has been re-written by Dr. Guy, and is exceedingly good.

The second part answers to the original work: it treats of Special Pathology.

This part of the book is scarcely up to our present state of knowledge; for example, the chapters on Fever and Apoplexy. The Encyclopædia and Library of Medicine are now far behind the knowledge of the day, and it is from these chiefly that the additions to the second part have been drawn.

Some good woodcuts, illustrative of the forms of urinary deposits, are given for the first time in this edition.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

VENEREAL AFFECTIONS OF THE BRAIN.

Few, if any, works on the venereal disease allude to certain functional disorders of the brain which accompany secondary syphilis, and often assume such severe characters as to be mistaken for organic disease of the cerebrum. Professor Schützenberger relates, in the *Strasbourg Medical Gazette*, two highly instructive cases of the kind now alluded to. A brief analysis may have the effect of directing attention to this point, which has been neglected or overlooked by nearly all systematic writers.

"A man 35 years of age, was admitted into the Strasbourg hospital on the 20th May, 1849. For the last two months he had been subject to attacks of vertigo, with trembling and numbness of the extremities, coming on every evening. The accesses soon changed into epileptic convulsions; and towards the beginning of May the patient had evening attacks of violent headache, chiefly occupying the right frontal region.

"The disease was at first taken for epilepsy, and indigo prescribed; but this remedy only rendered the fits doubly severe. The existence of chronic meningitis was next suspected, and depleting measures adopted. Some benefit resulted at first; but on the 29th May a new epileptic fit, more violent than any of the former ones, came on. Some slight irregularity of the pupil, with other signs of an incipient iritis, were now observed, and the Professor's mind at once awakened to the possibility of a venereal affection. The patient had always denied having had syphilis; but now, on being pressed more closely, acknowledged to two chancres and an eruption. Finally, on examining his person with care, a tumefied surface, with two ulcers, was observed on the sternum. The specific treatment was now adopted without delay. Five scruples of mercurial ointment were rubbed in every second day. Salivation commenced after the third friction. The treatment was continued for six weeks with the best effect on the cerebral symptoms. After the tenth day the fits became much lighter, and subsequently disappeared, leaving behind them, however, trembling of the limbs. On the 12th July the patient insisted on leaving the hospital, fancying himself completely cured; but he was forced to return on October 3rd, all his symptoms having reappeared. The iodoret of potassium was now ordered, in the dose of twenty grains a day. This, at first, exasperated the cerebral symptoms in a very remarkable manner; the patient lost all consciousness of what he was doing. Frictions with iodine ointment were substituted, and in a few days the internal use of the iodine resumed, but, on this occasion, in the dose of two grains, which was gradually carried to a drachm per day. In about a fortnight the symptoms had gradually given way, and the patient was discharged cured on the 11th December, since when he has suffered no relapse."

The second case related by Professor Schützenberger is very similar to the former one. There were evening headaches, loss of intelligence, and trembling of the limbs, but no regular convulsions. The patient was cured in a couple of months by mercury and iodine.

The nature of the cerebral affection in these cases, though evidently dependent on syphilis, is not clearly determined. Perhaps the most rational explanation may be obtained by supposing exostosis of the inner table of the cranium, giving rise to chronic meningitis, or irritation of the cerebral pulp. —*Gaz. Méd. de Strasbourg.*

VOLKMANN'S HÆMADYNAMICS.(a)

By this valuable work, the author shows the scientific world that he has not only made occasional incursions into the department of exact physiology, but that his continuous exertions have reaped some of its richest fruits, and that too in a part of the science which, above all others, seems to offer insuperable obstacles to such an exact mathematical treatment. It is well known that the calculation of the movement of fluids through inflexible straight tubes, of uniform thickness in all their parts, is one of the most difficult problems of physics. It may then be easily imagined, how much more difficult are the circumstances offered in the calculation of the movement of the blood, which everywhere streams through elastic tubes that are variously curved in shape, and constantly changing in thickness. As easily can it be understood that, as the author himself remarks, the formulæ which he has discovered and exhibited have only an approximative value. But we can scarcely expect ever to become acquainted with the exact and true proportions which they are intended to supply; and any one who will carefully study this invaluable monograph will, we venture to predict, rise from it with the impression, that there are few things more desirable than that other parts of organic physics should experience a treatment similar to that which the dynamics of the blood have here obtained, and to the immediate contemplation of which we now invite the scientific reader.

The entire work is divided into fifteen chapters. Of these the first four contain preliminary physical studies, theoretical researches, and experiments under circumstances which approach as nearly as possible to those of the movement of the blood. The other eleven chapters contain a statement of the movement of the blood in the organism, calculated and compared with the facts contained in the first four chapters.

The first chapter treats of *the movement of a fluid through inflexible, straight, and uniformly thick tubes.* From this, in order to understand what follows in the succeeding chapters, it is necessary to deduce the following short account.

Every fluid flowing through a tube exerts a double force; one in the direction of the long axis, *the force of the stream*, which is correspondingly measurable by its velocity; and another, which is the pressure of the fluid against the wall of the containing tube, or *the lateral pressure*. The first we may indicate by the letter v, the second by s. But every tube offers to the stream of fluid a resistance $= w$, which is produced by the adhesion of the water to the wall of the tube, and by the shock of the watery particles striking against the irregularities and projections of its surface. It follows from thence that the longer and narrower the tubes the greater must be the resistance. Other things being equal, the resistance increases proportionately with the length of the tube, but this does not hold good of the narrowing of its diameter. The resistance here increases in a greater proportion than inversely as the diameter.

The faster a fluid streams, the more frequently must the adhesion of each of its particles be overcome; so that the obstacle offered by adhesion varies directly with the velocity. The resistance of the shock of the fluid against the irregularities is similarly dependent on the velocity, and is the product of the number of shocks multiplied by their force. But since both number and force are proportional to velocity, the entire resistance of the shock is the square of the velocity, and thus we get the resistance $w = a\,v^2 + bv$, where a and b signify some constant co-efficients, which must be empirically determined. Direct experiment shows that the formula just mentioned is perfectly sufficient as long as the tubes remain not very small; for capillary tubes it no longer holds good, as will be hereafter more especially shown.

The co-efficients a and b are factors which depend on all possible causes of resistance; and, among these, the diameter d, and the length l of the tubes. And on account of the great influence of these two circumstances it becomes

(a) "Die Hæmadynamik nach Versuchen;" von Dr. A. H. Volkmann, Professor zu Halle. Leipzig, 1850. Breitkopf u. Haertel. Mit 10 Tafeln. The excellent summary from which the above pages are almost literally translated is by Pfaff of Erlangen in Schmidts' Jahrbuecher.

extremely desirable to find a formula in which d and l shall be indicated as separate magnitudes, and the remaining part of these factors a and b given as α and β. Gerstner had offered a a formula for this purpose, which the author, by direct experiment, ascertained to be correct. It runs thus: $w = \frac{4l}{d}\left(\alpha\frac{V^2}{4g} + \beta\frac{V}{\sqrt{d}}\right)$; where g indicates the space traversed in one second. If a and b are calculated from direct observations, one gets the remaining $\alpha = \frac{adg}{l}$, and $\beta = \frac{bd\sqrt{d}}{4l}$

But these co-efficients are not constant for different tubes, as the author shows from experiments.

The force with which the fluid moves can always be reduced, as regards its mechanical effect, to the pressure of a column of water of determinate height. This pressure must, on the one hand, overmatch the resistances in the tube, on the other hand, effect the flow. Thus one may divide the whole pressure = H, into two parts: $H = f + w$; where f signifies the part necessary to the flow. Given any two of these three magnitudes, the third may easily be calculated. But often only one of these forces can be directly measured: even here, however, if the velocity of the stream and H or w be given, the remaining forces can easily be calculated. According to a well-known law, fluids stream from the free opening of a containing vessel with the velocity of a body falling from a height equal to that of the surface of the water above the orifice of outlet. The formula for discovering the velocity is $v = 2\sqrt{gh}$, where g signifies the space traversed by the falling body in one second, and h represents the whole height. Since, in the present instance, we are not concerned with resistance, the height fallen through = our previous f, and one thus obtains $v = 2\sqrt{gf}$ $v = \sqrt{4gf}$, $v^2 = 4gf$, and $f = \frac{v^2}{4g}$. And now, by substituting this value of f, and that of w before given, $(= av^2 + bv)$ in the equation of $H = f + w$, we get $H = \frac{v^2}{4v} + av^2 + bv$. Thus from H and v we may determine f and w.

But if one has only w and v, a and b must first be calculated from these. One has then $av^2 + bv = w$ and $\frac{v^2}{4g} = f$, and these two together will again give H. Evidently f and w will vary with the value of H, but f diminishes at a quicker rate than w, as may be deduced both from the above formula and from experiments. It is only in the case of very inconsiderable streams that this law is departed from. If H be changed to any magnitude at pleasure x, the following value will be found for the resulting stream V by the above formula; $V = \frac{b}{2c} + \sqrt{v^2 + \frac{bv + x}{c} + \frac{b^2}{4c_2}}$

where $c = \frac{1}{4g} + a$. A comparison of direct observations with the calculated results, gives for an increase of H from 600 to 2400 millimetres a difference of only from—1/45 to + 1/381.

As already mentioned, w rises and falls with H. But the ratio of H to w is unfortunately no constant magnitude. And in consequence of the above formula, a rise and fall of the value $\frac{H}{w}$ must occur simultaneously with the rise and fall of H itself; only experience shows that this is not always the case, and that often the diminution of H in no way diminishes the quantity $\frac{H}{w}$. This sufficiently shows that the formula $H = \frac{v^2}{4g} + av + bv$ seems not exactly to correspond in all cases; but which are these cases can only be determined empirically.

In many cases—and especially in the hæmadynamometer—the resistance w can only be estimated from the lateral pressure S. It is thus very important to ascertain whether S can be regarded as exactly equal to w. But from experiments it appeared that S in many cases came out smaller than w was from calculation. Supposing, then, the difference between S and $w = s$, what value will this have in different instances? In order to answer this question, the author instituted experiments on the influence of the length and width of the tube, and the velocity of the stream S upon s. He found that the longer and narrower the tube, and the more w increases, and the velocity decreases, the less s became, and the less also was the error committed by putting $S = w$; a fact which is of great value in the application of the hæmadynamometer, and has been hitherto quite unnoticed. But all these facts only hold good for such tubes which have a diameter of some millimetres. Poiseuille found from his researches on capillary tubes $v = \frac{Hd^2}{Bl}$ where B indicates a co-efficient. But if we calculate this value, viz. v, for capillary tubes, according to the formula given above for larger tubes, we get $v = \frac{Hd^{\frac{3}{2}}}{Bl}$, instead of d^2 as in Poiseuille's estimate. It results from this, that for narrower tubes the quantity d is raised to a higher power, and in capillaries reaches its square. The preponderance of the adhering over the non-adhering layer makes this perfectly explicable. And the resistance in capillaries is proportional to the velocity only, and not to the *square* of the velocity, since this is the result of that part of the resistance which, depends on the shock, and which, in consequence of the slow stream in capillaries, comparatively disappears.

The second chapter considers *the movement of fluid through inflexible tubes of unequal width or angular direction.* It results from this, that the lateral pressure decreases from the orifice of entrance to that of outlet, as in tubes of uniform width in general. But there is this difference, that in these latter the heights of lateral pressure lie in a straight line, drawn from the orifice of outlet to the upper end of the column of water. While, in unequal tubes, the heights of lateral pressure form a curve, since this pressure is less where the tube is wider; a fact easily explained from the stream being there slower. And, conversely, the lateral pressure increases where the water passes from a wider into a narrower part, which may be similarly explained by the obstruction here occuring.

The greater the curve at any place the greater must obviously be the resistance. The angle is a cause of obstruction, and can only raise the value of the resistance $w = av^2 + bv$ by elevating the co-efficients. But these depend on a multitude of circumstances—length and narrowness of the tubes, smoothness of their walls, &c. Thus, the more obstacles that are present, besides that of the angle, the more inconsiderable will its share in w be. Experiment showed that in one case, where the proportion of resistance and height of fall was $\frac{H}{w} = 1{\cdot}512$, a right angle increased w $\frac{1}{3}$; but where the resistance was greater, so that $\frac{H}{w} = 1{\cdot}072$, the addition made to w by bending the tube at a right angle amounted to only $\frac{1}{17}$.

In the third chapter the author treats of *the movement of fluid through a system of branched tubes.* For this purpose he constructed an apparatus which corresponded to the conditions of subdividing bloodvessels, since it formed a system of tubes with frequent dichotomous branchings, which finally re-united into one tube of discharge. In some of his researches the branches of tube were of uniform length and width; in others, their branches were of diminished size and of different lengths. He found that in these cases, also, the foregoing formulæ preserved their value and usefulness. He next closely examined the influence which a continual branching of the tubes has upon the general resistance and the velocity of the stream. One question here obtrudes itself, which has a special bearing upon the circulation of the blood; namely, whether an increase of resistance occurs from the branched and manifold condition of the canals of outlet, and whether such increase is proportional to the enlargement of the surfaces of adhesion, and the increase of the angles thus produced? It is well known that the affirmative to this question has been unhesitatingly assumed by many physiologists, and that from the enormous resistance of the capillaries which would thus result, they have inferred that the heart alone has not sufficient power to drive the blood through all the capillaries. The experiments which the author contrived prove, however, that this presumption is erroneous, and that, under circumstances which at present cannot be more particularly specified, a multiplication of the channels of the blood by collateral branches, obviates the disadvantage produced by the increase of the surface of adhesion, so that a diminution of

the collateral branches may even cause an increase of resistance.

The fourth chapter treats of *the undulation of water in elastic tubes*. In his experiments the author made use of a young goat's intestine, which was provided, at different places, with instruments to measure the lateral pressure; this apparatus being found by him preferable to a tube of caoutchouc. The sudden and uniform injection of water was effected by means of a cock which, through the swinging of a pendulum, opened or shut the communication with a water jar of constant uniform fulness. From the experiments made with this apparatus he deduced the following results:—

1. *The changes which the undulations experience in their course.*—The maximum elevation, the magnitude of the waves, and the medium pressure (medium, *i. e.*, between the top of the waves and the bottom of their intervening hollow) decrease from the beginning of the tube to its end: the maximum depressions at first increase, but towards the end again decrease.

2. *Influence of the Moving Force H on the Undulations.*—The highest and lowest level, the medium pressure, and the size of the waves, all increase simultaneously with *H*.

3. *Influence of the Frequency of the Pulse upon the Undulatory Movement.*—The author was unable to deduce any valid general facts on this head from his experiments.

4. *Influence of the Resistances on the Undulatory Movements.*—The highest and lowest level, and the average pressure, increase with the resistance, while the size of the waves continually decreases.

These facts are subsequently more closely examined and illustrated by the author: and in this way he arrives at the important result, that the average pressure and velocity of the stream in elastic tubes preserve the same determinate proportion shown in the formula $w = av^2 + bv$. The values so calculated deviate from those actually observed at most from only $-\frac{1}{100}$ to $+\frac{1}{75}$, a difference which lies within that attributable to errors of observation. The form of the waves, and their condition in various segments of the tubes, are very fully detailed; but without the necessary figures, which he gives, little of this can advantageously be introduced. A great multiplicity of the appearances are referred to the fact, that by one shock two kinds of wave are excited in one tube; viz., one which propagates itself immediately and swiftly through the whole mass of water, and another which commences by the contraction of the elastic tube previously extended by the shock, and which propagates itself slowly, at a rate varying with the greater or less distention of the intestine. According as these two undulations decussate or coincide, arise altogether different forms of waves, which the author has immediately reproduced by means of an instrument called the kymographion.(a) It is especially worthy of notice, that the lowering of the waves from this circumstance is much less considerable than their converse increase; but further details upon these points would lead us too far from the present subject. With this chapter the author concludes his preliminary investigations, and applies himself to the phenomena of the circulation of the blood.

(To be continued.)

(a) Kymographion from κυμα, *unda*. The author's instrument is an ingenious adaptation of Ludwig's, described in the *Medical Times*, of April, 1850. But, as all of our readers may not be able to refer easily to this number, we may here state that the instrument, as adapted to the hæmadynamometer, is a small iron rod floating on the surface of its quicksilver, and at the upper end impinging on a pencil, the opposite extremity of which is in contact with a cylinder, covered with paper, and revolving by means of clock-work, at an uniform rate. The vertical movements of the mercury in the tube of the hæmadynamometer are thus transferred to the iron, increased if necessary by the lever which the pencil forms, and traced on the paper as a wavy line,—in which extent of movement is represented by the heights of these waves, while their breadths or the abscisses of the curves mark duration. The anemometer at the Royal Exchange, Ludwig's instrument, which measured the vertical alterations of the heart during contraction, and the author's hæmadynamometer, are thus the same self-registering instrument, only differing in the forces which move the lever; viz., the wind, the heart, and the blood, respectively.

Orthopædic Hospital.—At the anniversary festival of this Institution, it was stated, that the expenditure during the last year was 1836*l.*, the number of patients, 1455. The total number of in and out patients admitted since the opening of the charity was not less than 10,570. The donations received in the course of the evening amounted to 2500*l.* A building fund has been commenced.

FOREIGN CORRESPONDENCE.

FRANCE.

EPIDEMIC AMONG CATTLE.

The grippe, cholera, and other disagreeable epidemics have disappeared for a time; but, *en revanche*, a most virulent epidemic, which bears strong analogy to the cholera, has been decimating several classes of the inferior animals. Like the cholera, this formidable disease cuts off the strongest subjects in an hour, and is characterised by prostration, stupor, specific diarrhœa, blue colour of the skin, and general injection of the alimentary canal, especially the small intestine. The disease, whatever it may be, is highly virulent, and in a most extraordinary degree contagious. Every fibre, every drop of fluid in an animal cut off by the complaint, is capable of transmitting the original disease. Even a drop of the aqueous humour, inserted beneath the skin of a healthy animal, gives the malady. The symptoms, however, are considerably modified according to the class or even species of animal; and as the morbific cause remains the same, an opportunity is offered of studying the comparative effects of the same pathological cause in different classes of animals. This interesting study has been taken up by several members of the Academy of Medicine, who are now performing an extensive series of inoculations. In the south of France the "sweating sickness" has again broken out with considerable violence, and as this curious malady was a precursor of the cholera in 1849, great alarm has been occasioned, the more especially that the disease has proved fatal in several cases. M. Alique, an Inspector-general of hospitals, with a strong staff, has been despatched, to render assistance and report on the sanitary condition of the affected localities. Many of them have been completely abandoned by the inhabitants; the middle ages still exist in various parts of France, and, indeed, among ourselves likewise.

CHLOROFORM AS AN ANÆSTHETIC.

The local use of chloroform or of the chloruretted hydrochloric ether, is becoming more general here every day, and is now almost universally substituted for opiate or other calming lotions. The quantities, however, differ from those employed on your side of the Channel, at least if I may judge from an English prescription, now before me, in which two minims of chloroform to an ounce of water are ordered. This homœopathic dose could produce little or no effect upon any severe pain. The "Dutch liquor" is preferable to chloroform as a local agent, and it is not impossible, seeing the progress of modern chemistry, that some other substance of superior qualities may be brought to light. Thus M. Edward Robin, one of our most industrious chemists, has discovered that hydrobromic ether possesses anæsthetic properties of a valuable kind. It has no acrid or caustic savour; its odour is not disagreeable; it renders animals rapidly insensible, without apparently producing any unpleasant effects. Those of chloroform, as is well known, are sometimes dangerous, and often of a curious kind. We had an example, not long ago, at one of our hospitals here. The subject was a poor priest, doomed to amputation of the leg for gangrene. He was chlorofied, and reduced to a state of strange intoxication, during which the language of the holy man was anything but edifying. His expressions, in fact, became so immoral, that it was almost impossible to complete the operation amid the laughter of the assistants.

GENERAL CORRESPONDENCE.

KÖLLIKER'S LETTERS FROM ENGLAND.

[To the Editor of the Medical Times.]

Sir,—I am very sensible that the amiable and accomplished author of "Letters from England," which you translated in two late numbers of your journal, has been influenced in some few of his remarks by the partiality of friendship. But I should be sorry if any one were to suppose that an observation of his relative to the "Physiological Anatomy and Physiology of Man," had been suggested by anything that had passed between us during his stay in London last autumn. Alluding to this, he says,—"It is even a matter of doubt, whether the fourth section, which we have been expecting since 1847, will ever appear, although about ten sheets, which I have myself seen, are already completed." On this I may observe, that when Dr. Todd and I entered upon that work, we little anticipated how long its production would occupy us; and I can assure you, that the delay which has taken place has been very

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painful to both of us. This delay is in part attributable to the nature and mode of handling of the subjects, the difficulties of which we under-estimated; but the chief cause is that assigned by my friend, that since the undertaking was commenced, our other professional engagements of various kinds have much increased, so as materially to diminish that leisure time which, from the first, was all that we could properly devote to a work of that description. We soon found, indeed, that unless we were prepared to sacrifice the active duties of a professional life, for the sake of hastening its completion, we could not bring it to a conclusion within the term originally contemplated,—at least, that we could not do so without lowering the standard we had set ourselves. But I hope you will not share my much-valued friend's doubts, but, on the contrary, believe that Dr. Todd and myself feel bound in honour, no less than in love for the subject, to proceed with the work which we have begun, till it be completed. We have not, and have never had the slightest intention of abandoning it. It is quite true, that much of the next part is already in print, and still more in an advanced state of preparation.

I will now, with your permission, say a word or two with reference to an expression in the succeeding sentence, in which I am stated to have "made ophthalmic surgery my *specialité*." Whatever may be the precise force of this French term, or of the German *augenarzt*, "oculist," it must be confessed that there is a great and increasing tendency in the present day to break up the practice of the healing art into subordinate departments, of which the limits are often very narrow, and sometimes comprehend the diseases of but a single organ, or even a single tissue; and so natural would this tendency seem, that the public are ready to acquiesce in it, and to stimulate it, perhaps more than is beneficial for the real advancement of medical science, though their compliance can hardly be a matter of wonder, when our Profession is itself very prone to encourage it.

Now, though it is undeniably desirable, and even necessary, in great communities and in a highly cultivated age, that medical men should diverge somewhat into particular lines of practice, and though I gladly acknowledge that there are distinguished men now confining themselves to the ophthalmic department with honour and success, as well as with advantage to the common stock of knowledge; yet I must be permitted to express my entire concurrence in a principle which has always been acted on at the hospital in Moorfields, of discouraging its medical officers from restricting themselves to ophthalmic practice, on the ground that, as a rule, physicians and surgeons engaged in the general practice of their respective branches are most advantageously circumstanced for the study and treatment of eye diseases. The names of Dr. Farre, of Mr. Travers, of Mr. Lawrence, and the late Mr. Tyrrel, may be adduced in illustration of the manner in which this principle has been kept in view, and has borne fruit, at that hospital; and that of Mr. Guthrie might be added from a sister institution. And, indeed, it is but reasonable to expect, that if a surgeon of a general hospital has the opportunity of concentrating a great number of cases of eye diseases in an ophthalmic ward, or, still better, in an ophthalmic hospital, he will have more chance of advancing our knowledge and improving our means of relief, than one who limits himself to this sole department, and is less able to illustrate it by familiarity with general or analogous diseased states, and the methods of treating them.

Nothing, let me repeat, is further from my wish than to disparage the position or the merits of any who are pursuing ophthalmic practice separately. Let our common profession be enriched to the utmost with new conquests of knowledge acquired by all the modes in which it is honourably followed. I only hold, and desire to act on the conviction, that ophthalmic surgery can be best studied and improved while it retains its connexion with surgery in general. My colleagues, like myself, are bound to the maintenance of this connexion, by our appointments to large general hospitals, and we practise ophthalmic surgery at a separate hospital for convenience sake, not as an exclusive pursuit.

The same convenience, I may add, is favourable for instruction, and it would perhaps be well if the attendance of our metropolitan students at the great ophthalmic hospitals were more directly encouraged by the Examining Boards.

I am, &c.

5, Clifford-street. WILLIAM BOWMAN.

OBSERVATIONS ON MR. THOMAS UNDERHILL'S "ANOMALOUS CASE OF PREGNANCY; ABSENCE OF FŒTUS."

[To the Editor of the Medical Times.]

SIR,—As consecutive communications in medical journals tend greatly to the clearing up of interesting and doubtful points in the practice of medicine, I beg to send you the enclosed remarks on your Correspondent's communication, inserted in your Journal of 17th May, 1851.

If the reader will refer to the *Medical Times* of 17th May, 1851, it will save much recapitulation on the above case.

In the *Lancet* of April 15, 1848, p. 423, there is recorded an "Instance of Retention of a Dead Ovum in the Womb for Six Months without Putrefaction." The Editor remarks thereon, that "anomalies like the foregoing scarcely admit of explanation. The rule is, that when the ovum dies, it is expelled, or, if retained, it putrefies. We seek in vain for the explanation of an exception such as this. There are very few similar cases on record." In answer to this I sent to the *Lancet* certain observations, which were inserted in that Journal of 29th April, 1848, with these observations from my work:—

"The connexion between the uterus and the ovum is of such a character, that an immediate separation between them would endanger the life of the parent. The consequence is, that a blighted ovum may remain in utero from a fortnight to six months and more. The ovum may be blighted either totally or partially; totally when the placenta and embryo are both affected. When this has thoroughly ensued, Nature, too cautious and too wise to permit the presence of such a body, soon rejects it; and she does this for several reasons, the two principal of which are, that it interferes, in the first place, with the return of the previous functions of the containing organ, the uterus; and, secondly, that being of no further use, the sooner it is discarded the better. Next, the ovum may be partially blighted: this occurs when the embryotic existence within it is entirely destroyed, whilst the placental portion is not. In this state, the placenta keeps increasing in size, as if unaware of its ultimate uses being at an end, namely, to nourish a fœtus. Arriving at a certain stage, however, it finds its labours useless, and it gradually ceases its efforts; perfect though it may be in itself, it can arrive only at a prescribed point of usefulness. When the supply of catamenial fluid from the uterus is unable any longer to be appropriated, it gradually lessens, until, at last, it stops altogether; after which time the ovum becomes a foreign body, as when totally blighted, and the same laws for its expulsion begin to operate.... The difference between the two phenomena is this,—that the totally blighted ovum is ejected in from one to six months, more or less. I have seen many cases where the size of the patient has gradually increased to the fourth month, and, after that period, a gradual decrease has ensued till the sixth month, when the ovum has come away.... A totally blighted ovum is firm and small, and comes away without much difficulty or flooding; a partially blighted ovum is more or less attended with uterine or labour-pains and flooding.... A double ovum may become blighted, either wholly or partially, and an interval elapse between the expulsion; or a double conception occur, in which one child will live to maturity, and the other be blighted in the ovum."—See Cases Nos. 76, 69, and 287.

In the *Lancet* of 12th August, 1848, p. 177, I cited a case of "Prolonged Retention of the Dead Ovum in Utero without Putrefaction," during the full term of utero-gestation, the dates of which I will here insert:—

—	Lunar months.	Occurrences.	
September 30 days	28 days	28th September.	Conception quickly followed by death of the fœtus in utero, placental portion continuing vital.
October ... 31 ,,	28 ,,	26th October	
November 30 ,,	28 ,,	23rd November	
December 31 ,,	28 ,,	21st December	
January ... 31 ,,	28 ,,	18th January	Placental portion still vital, attended with flooding.
February 29 ,,	28 ,,	15th February	
March..... 31 ,,	28 ,,	14th March	Occasional ovarian excitement, without any discharge whatever. 5th June, half-past 10, p.m., parturition.
April ..... 30 ,,	28 ,,	14th April	
May ..... 31 ,,	28 ,,	9th May	
February 6 ,,	28 ,,	6th June	
280 ,,	280 ,,		

In reference to Mr. Underhill's case, that gentleman says:—"She missed the catamenia since the last week in those months which they appeared regularly. To use her own expression, she was 'caught' in the beginning of June, had always known by certain symptoms which she cannot describe soon after she had become pregnant. She progressed favourably till the middle of September, and had, the last few weeks, rapidly increased in size more so than in former pregnancies. About this time she

some slight hæmorrhage, which continued several days, and which she attributed to a fright from a neighbour being brought home killed at the pit. After this time, till the beginning of December, there was nothing remarkable, excepting that she did not get much larger, and, as she said, felt the child very seldom, and very weak. During December and January, 1851, she had several attacks of flooding, but which were not very considerable. On the morning of February 8th, while engaged in her ordinary avocations, violent hæmorrhage came on, in consequence of which I was sent for. Before my arrival the hæmorrhage had ceased," &c. On the 7th of February, the ovum came away; and, to Mr. Underhill's surprise, no fœtus. This case, therefore, was one of partial blight; and it may not be uninteresting to Mr. Underhill to see his record re-dressed for his own and others' information :—

	Lunar months.	Occurrence.	
June ..... 30 days	28 days	28th June	Conception quickly followed by death of the germ in ovum, placental portion continuing vital.
July ..... 31 ,,	28 ,,	26th July	
August ... 30 ,,	28 ,,	23rd August	
September 30 ,,	28 ,,	20th September	About this time a slight hæmorrhage. 4th month utero-gestation.
October ... 31 ,,	28 ,,	18th October	Quite well.
November 30 ,,	28 ,,	15th November	
December 31 ,,	28 ,,	13th December	From and about the seventh month of utero-gestation, attacks of flooding, which continued till 7th February. Parturition.
January ... 31 ,,	28 ,,	10th January	
February ... 7 ,,	28 ,,	7th February	
262 ,,	252 ,,		

This case may be cited as a partially blighted ovum, obeying the laws of a nine lunar month pregnancy; as my own did of a ten lunar month pregnancy. These cases, like the parturient periods, seem to obey the laws of cycles and catamenial periods. I am at present anxiously looking forward to another case resembling the two just quoted. Mr. Underhill concludes his paper, by saying, "I have no remarks to make on this case. It is, I believe, without parallel, at least, I have never met with a similar case on record. It seems to be one of those extraordinary freaks of nature, which to us are perfectly unaccountable." And so it may appear to many. It will be seen by what I have now said, that there are parallel cases "as plentiful as blackberries." That my small work has not drawn the attention of the teachers of physiology, or the lecturers on midwifery, is no fault of mine. A circumstance so important as the retention of the dead ovum in utero during any given period of utero-gestation without putrefaction, at first recorded by me in a small volume published in 1845, not being more generally known, may seem strange in these days of rapid communication by means of the Press and intelligent journals; but so it is. My own personal friends may occupy these high positions, and yet allow the labours of their humbler brethren to remain unheeded. Mr. Underhill is entitled to every praise for his observation of this not uncommon case, and other men may record similar ones; but, what avails all these observations, unless they be engrafted on the great tree of medical knowledge, and for this we must look for assistance to our liberal and enlightened Medical Journals.

Putney. BENJAMIN RIDGE.

THE ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

[To Editor of the Medical Times.]

SIR,—Will you allow me to draw the attention of my fellows at the Royal Medical and Chirurgical Society to a new practice, now springing up, and which, if not checked, may and will turn the Society into a mere debating society, instead of being an institution whose scientific discussion follows the reading of a valuable paper. Since the installation of our new President, it has become the custom, whether remarks are or are not made on the papers that have been read, to call on their authors to reply,—a plan constantly pursued at the Medical Society of London, and at all debating societies, but, hitherto, rarely if ever carried out at the Medical and Chirurgical Society. I cannot expect you will grant me space to point out all the inconveniences of this practice, but the one I have already alluded to must be self-evident. If medical men who supply papers for this Society, in return are to anticipate, not a discussion, but a series of attacks, which they are expected to repel or answer, what can be the ultimate result, but injury and ruin to the Society. When I used to attend our meetings, now some years since, our library had not been converted into an arena for literary medical gladiators, anxious to measure their professional acumen and talent in opposition to each other. Then the President was accustomed to induce the fellows to pour forth their stores of knowledge for the mutual benefit of those present, and success in every way attended the Society. How is it now? I am, &c.

F.R.M.C.S.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. HODGSON, ESQ., F.R.S., President, in the Chair.

CASES IN WHICH THERE WAS UNUSUAL DIFFICULTY IN THE DIAGNOSIS OF PLEURITIC EFFUSIONS.

BY T. A. BARKER, M.D.

THE first case related by the author was one in which there was extensive emphysema of the left lung, which had encroached greatly on the right side of the chest, pushing the heart and mediastinum beyond the mesial line. The right lung was closely adherent to the costal pleura, was reduced to about a fourth of its usual size, was exsanguine, and contained no air, resembling a lung compressed by effusion in the pleura. In consequence of these changes, no respiration could be heard in the right lung during life; the right side of the chest was universally dull on percussion, and the patient could only lie on the right side or sit erect. Along with these symptoms were others, closely resembling those which usually attend hydrothorax; and the dyspnœa, and symptoms of approaching apnœa, being very urgent, the author thought himself justified in having a very fine trocar introduced into the chest, in order to ascertain positively whether there were fluid. No inconvenience resulted from the operation, and the symptoms were soon afterwards explained by the discovery, on *post-mortem* examination, of the very unusual state of parts above described. The next case was one in which, without any of the general symptoms of pleuritic effusion, it was discovered by auscultation, etc., that there was no respiration going on in the posterior third of the left lung. In four days the person died; the lungs were healthy, but there was extensive effusion confined to the back part of the chest by a very narrow line of adhesion extending from the upper and back part of the chest to the diaphragm, half way between the ribs and the sternum. The author referred to three other cases which he had seen, in which pleuritic effusion had been limited by adhesions in the same position and precisely similarly; only one of these had been seen by him during life; and in that the symptoms closely resembled those in the case last related. Two other cases were shortly alluded to, in which there was emphysema to a considerable extent, but respiratory sounds could be heard in every part of the affected side, in consequence of the lung being kept partially in contact with the ribs by numerous adhesions forming several separate cavities in which the purulent matter was contained.

Dr. Theophilus Thompson having heard only part of the paper, felt scarcely authorised to make any comments, but was tempted to offer a few remarks rather than allow an interesting communication, on a very important subject, to pass without discussion. In a case described by the author, one of the difficulties specified was the occurrence of pain at a distance from the affected pleura. Dr. Thompson considered this point well worthy of attention, for he believed that misdirection of pain in pleurisy was by no means unusual. It had repeatedly occurred to him, for example, to find a patient complaining of pain in the right hypochondrium, when the liver and peritoneum were unaffected, and careful examination proved the pleura to be the seat of disease. In one of the most severe cases of pleurisy which ever fell under his notice, in which full bleeding, the free use of mercury and other measures only slightly moderated, and failed to subdue the disease, the patient complained of intense pain at the lower part of the abdomen. After death

the abdomen was found free from any evidence of disease, the pathological manifestations being confined to the pleura, which was thickly coated with coagulable lymph. Dr. Barker, in one of his cases, had recorded the occurrence of weak respiratory murmur over the seat of the effusion. To this fact Dr. Thompson invited attention, because he believed it to be often difficult to distinguish between ordinary direct respiratory murmur and the indirect murmur often heard in cases of pleuritic effusion. In one important case regarding which he was consulted, a surgeon of great ability was reluctant to puncture on account of the distinctness of respiratory murmur; but the intercostal spaces protruded, percussion gave a dull sound, and the vocal vibration was absent, excepting near the apex of the lung, where it was unusually distinct. The operation was therefore performed, and eight pints of serum were removed. Dr. Thompson had not gathered from this paper the author's views on some symptoms of importance. It was very important to estimate the relative value of symptoms, and he (Dr. Thompson) considered the cardinal symptoms of pleuritic effusion to be the absence of any vocal vibration on applying the hand, and a dull sound on percussion. Beyond the level of the effusion the vocal thrill was often greater than natural, and thus, by observation of this sign, not only the presence but the limit of effusion might be determined. On the other hand, when dull percussion was dependent on consolidated lungs, whether from tubercular infiltration or hepatisation, the vocal thrill was almost invariably present, and commonly increased.

Dr. Seth Thompson inquired of Dr. Theophilus Thompson, whether he had rightly understood him, in supposing that he had said that the vocal thrill does not exist in cases of great solidification of the lung; he (Dr. Seth Thompson) had always believed that it was present in such cases, and, indeed, Dr. Chambers had spoken of it as affording a diagnostic sign between solidification of the lung and effusion into the cavity of the pleura.

Dr. Theophilus Thompson explained that the principal evidences of consolidated lungs were, as he considered, dull percussion, and the presence of vocal vibration usually augmented, whilst the cardinal signs of pleuritic effusion were dull percussion and the absence of vocal thrill. Cases in which the vocal thrill is rendered feeble by consolidation of lung he believed to be extremely rare, and probably dependent on alteration of pulmonary structure too extensive to occur without the concurrence of circumstances sufficiently distinctive of the true nature of the disease. In all instances the history and collateral circumstances must be taken into account; and if any case occurred in which the signs he had specified were insufficiently marked, such collateral circumstances would usually, for the reason assigned, prove adequate to remove any ambiguity.

A CASE IN WHICH A FIBRO-CELLULAR TUMOUR WAS REMOVED FROM THE HAND.

By SAMUEL SOLLY, Esq., F.R.S.

A married woman, aged 49, was admitted under Mr. Solly's care, into Queen's ward at St. Thomas' Hospital, February 22nd, 1851, with a tumour on the palm of the left hand, having very much the shape and appearance of a large potato of an oblong shape, varying from three to five inches in diameter, and attached by a broad pedicle. Some patches of ulceration existed, two or three lines deep, having none of the characters of malignant disease. The surfaces bled easily, and were surrounded by a limited blush of redness. The tumour was elsewhere of a pale colour, with small tortuous veins ramifying upon it. It had an elastic feel, much like that of encephaloid disease, in some parts giving the idea of fluid; in others, firmer. There had been increase of pain of late, but it was not constant, and depended much upon position. The health had been but little affected. The tumour encroached upon all the fingers, but did not prevent their flexion and extension; and a considerable portion of the skin of the palm remained intact. Much difference of opinion existed as to the nature of the disease, whether malignant or not. Mr. Solly was inclined to consider it as a species of enchondroma. By a grooved needle some jelly-like stuff was obtained, containing much granular matter, with many exudation-corpuscles and some few spindle-shaped cells, with here and there a common epithelial cell. Mr. Solly removed the tumour on March 1, 1851. When examined it had the appearance of an enchondroma of a soft kind. There was a firm, white, dense matrix, enclosing glairy fluid. No true cartilage could be found. Portions of the tumour were sent to Mr. Quekett, and also to Mr. Birkett. Communications from these gentlemen show that they agree as to the non-malignant character of the disease. A careful report of the actual condition of the tumour after removal, drawn up by Dr. J. L. Bristowe, also tends to the same conclusion. The wound was of a healthy character, and, on the 19th of March, it is reported to have been only one-fourth of its original size, the swelling and tenderness of the fingers diminished, and the back of the hand regaining its natural appearance.

ANEURISMAL DILATATION OF THE POSTERIOR TIBIAL VEIN, COMMUNICATING INDIRECTLY WITH THE POPLITEAL ARTERY.

By EDWARD COCK, Esq., Surgeon to Guy's Hospital.

George Mortimer, aged 28, a tide-waiter, was admitted into Guy's Hospital, October 30, 1850, for a large swelling on the back of his leg, which came on after a long and severe attack of fever. The swelling had all the indications of being a deep-seated abscess under the gastronemic muscles. Eleven years previously, the femoral artery had been tied for secondary hæmorrhage following a wound in the popliteal space. He had perfectly recovered from the accident and the operation, and the only inconvenience he ever experienced was a dilatation of the superficial veins of the leg, which took place about two years afterwards, and became permanent.

On October 30, a puncture was made in the swelling, which gave exit to nearly three ounces of dark grumous pitchy blood, which did not coagulate, and had evidently been extravasated for a considerable period. Two days after the puncture had been made, nearly a pint of pus escaped from the wound, to the great relief of the patient; the abscess continued to discharge, and diminished in size during a period of twelve days, the man's health and strength daily improving.

On November 14, sudden and alarming hæmorrhage to the extent of nearly three pints took place from the wound. The cavity of the original abscess became distended with blood, and infiltration was rapidly taking place into the tissues of the leg, and through the popliteal space towards the thigh. It was judged expedient to amputate the leg above the knee, after which the man got perfectly well.

Examination of the amputated limb.—In the popliteal space, corresponding with the original seat of injury eleven years previously, there existed a small sac, into which opened the popliteal artery, and to the walls of which were attached the termination of a fibrous cord, which represented the popliteal vein obliterated up to the line of amputation. Leaving the sac from its inferior surface were two vessels, the one being the continuation of the popliteal artery, reduced in size, and passing down to be distributed normally to the leg; the other the popliteal vein, permeable, dilated, thickened, pouched, and puckered, which passed down, and divided as usual into the anterior and posterior tibial veins. The former was completely obliterated; the latter immediately terminated in an aneurismal dilatation, about as large as a hen's egg, situated under the soleus muscle. An irregular opening in the sac communicated directly with the cavity, which had constituted the abscess, when the patient first came under observation; and which subsequently (at the period when the hæmorrhage took place,) became distended with blood, derived from the popliteal artery by means of its communication with the vein. All the deep-seated veins of the leg had evidently been long obliterated, and were occupied by solid coagulum, the blood having been returned through the agency of the superficial veins.

MEDICAL SOCIETY OF LONDON.

Dr. MURPHY, President, in the Chair.

HEALTH OF LONDON DURING THE SIX MONTHS TERMINATING MARCH 29, 1851.

Dr. Webster then read a paper on the above subject. After alluding to previous communications respecting the sanitary condition of London, made to the Society, the author said, speaking generally, the health of the Metropolis had recently proved of a more favourable character than during the six parallel months of the former year,—especially in last October, November, and December, when 12,544 deaths were reported, instead of 13,098, which occurred in the same quarter of 1849,—thus making a difference of 553 fatal cases in favour of the first three months of the half-year just terminated. With reference, however, to the amount of sickness, and consequent mortality met with, throughout the

metropolitan districts, in the latter quarter,—viz., the first three months of the current year,—the result was somewhat different, seeing 18,410 persons then died in London, contradistinguished to 13,219 reported during the parallel quarter of 1850. This excess in the number of fatal cases, the author specially remarked, occurred chiefly in the month of March, when not less than 1443 more deaths took place than in the similar four weeks of 1850; which consequently became, in comparison with any other period, an unusually insalubrious season. Pursuing the same plan adopted, when adverting, in former papers, to the sanitary condition of London, Dr. Webster, at considerable length, then discussed the several diseases which lately exhibited a diminished rate of mortality; but our space does not permit us to go into detail, or to give the elaborate particulars furnished by the Author. The mortality recorded at the general hospitals of London was then investigated. In discussing the chief points connected with this important question, various statistical statements, obtained from different metropolitan institutions, were brought before the Society, to which the special attention of Fellows was requested, as the facts detailed not only enabled scientific observers to form their own opinions from authentic sources, irrespective of any deductions then promulgated, but would likewise prove valuable both to physicians and surgeons interested in similar inquiries. Considerable attention having been excited by previous remarks on hospital mortality, the Author then observed, that, in order to insure accuracy, he purposely forwarded to professional official friends attached to the eleven general hospitals of London, an exactly similar form, to be filled up with the number of patients admitted, the amount of cures, and the total deaths recorded during the six months comprised in his communication. To those gentlemen who responded, many thanks were expressed for their courtesy; and although some of the questions put could not be fully answered, owing to various causes, nevertheless the information so obtained was most valuable, as it enabled Dr. Webster to construct a table, giving the statistics of in-patients at nine general hospitals of London, during six months terminating the end of March, 1851; from which we get the result, that in all the nine hospitals, 11,838 patients were admitted; and 850 died; being a per centage of deaths of 7.18. According to this table, the number of patients labouring under surgical diseases in most of the hospitals, but especially at the London and St. Bartholomew's, considerably predominated over the medical, except at the Westminster. In the first-named charity, the proportion was five surgical to two medical cases admitted; whilst at St. Bartholomew's it ranged exactly double. Respecting the proportion of deaths recorded, speaking relatively, the ratio was higher among medical patients, at all the metropolitan hospitals, than among persons treated by the surgeons; and notwithstanding the amount of deaths was identical in both categories, at the London the comparative result was similar to that elsewhere observed. On the other hand, in reference to the ordinary rate of mortality met with in medical diseases, the mean averaged highest at Charing-cross and St. Bartholomew's hospitals, where, calculated upon the numbers admitted, it reached fourteen and a half per cent. in the former, and thirteen and a half in the latter; the lowest anywhere recorded being at the Free Hospital. Again, among surgical patients, the smallest mortality occurred at the Westminster, in which establishment the proportion averaged under three and a half per cent.; whilst at St. Bartholomew's, five deaths occurred for every hundred admissions; and, at St. George's Hospital, the ratio approached to nearly five and three-quarters. No answer having been returned to Dr. Webster's application respecting the movement of patients at University College, or Guy's Hospital, the author regretted much being unable to enter either of those institutions in the table he had compiled. Nevertheless, according to the Registrar-General's Reports, 70 patients died in University College Hospital during the two quarters ending last March, instead of 78 in the previous half-year; and at Guy's the total deaths were 191 in the recent period, contra-distinguished to 164 in the former, thus making an increase of 27 fatal cases, or nearly one-seventh. Although it was impossible to procure the requisite return regarding Guy's Hospital, a friend of the author, who obligingly examined the registers, stated, that the medical and surgical cases admitted from March 1850, to March 1851, amounted to 4165, the deaths being 349 during the same twelve months; thus showing that the rate of mortality ranged within a fraction of 9 per cent., or amongst the highest now recorded. Notwithstanding some discrepancies appeared in the mortuary details, and other particulars, received from several hospitals in the period Dr. Webster's report embraced, the total deaths during the more recent six months exceeded the amount recorded in the two quarters from March to October, 1850, seeing the aggregate mortality, at the eleven general hospitals was 1061; whereas, throughout the half-year terminating on the 29th of March, in the current year, the total number amounted to 1111; thus making an augmentation of 60 fatal cases during the more recent period. However, were the first three months of 1851 only taken into account, the relative mortality in all the general hospitals was greater than in the previous quarter, as shown by the fact, that 604 deaths, or more than half the whole amount, took place during the months of January, February, and March, contradistinguished to 307 reported in the quarter immediately preceding. Besides this statement, and in proof of the augmented sickness more recently prevalent in London, compared with the same period ending in March, 1850, it should be remembered, that 583 deaths had then supervened in the eleven general hospitals, giving consequently a somewhat similar result to that lately observed among workhouse inmates. Thinking one or two general observations regarding the sex of patients treated in metropolitan hospitals might prove interesting, the author next remarked, that from six of these institutions, among the total 7706 persons admitted during the last six months, a large majority were males, 4572 being of that sex, and 3184 of the opposite; therefore making a difference of 1388 more male than female inmates, or an excess of 43.59 per cent. In two charities the reverse was noticed regarding medical patients—namely, at St. Thomas' and the Middlesex hospitals. In the former, one-fourth more females than males, labouring under medical diseases, were admitted, whilst a similar peculiarity occurred in the latter institution, although the difference was less considerable. However, in the other establishments, more surgical male patients were received than females, particularly into the London and St. George's Hospitals, where the number of surgical patients of the male sex was about double that of females, at both places. Again, with reference to the aggregate mortality recorded in the same six charities, the rate, speaking generally, was rather against females, in whom it averaged nearly seven per cent.; whereas, among male patients, the mean ranged about six and three-quarters. Reasoning from the numerous and varied facts he had obtained, the author thought practitioners might fairly assume that the prospect of a fatal termination in male and female patients, when labouring under medical diseases of an ordinary kind, would prove nearly equal; whilst surgical complaints were likely to be more dangerous in the former than in the latter sex. But these conclusions being only based upon a limited number of data, they must be therefore received as mere approximations to the truth, and as indicating to students the practical knowledge investigators would assuredly obtain could a more extensive series of facts and figures be brought into calculation. Indeed Dr. Webster said emphatically, if accurate yet detailed registers of agenda in all public hospitals, kept upon a uniform system, were made available to the Profession, the benefits which must thereby accrue would prove invaluable; since the medical attendant in private practice, having such guides to form his opinion, instead of being perhaps sometimes in doubt respecting the result likely to supervene in particular diseases, might then foretell future events with the same certainty as actuaries and physicians, conversant with the science of life assurance, are now able to prognosticate the probable age an individual submitted to their examination may expect to attain under ordinary circumstances. Feeling desirous to obtain information regarding the proportion of patients discharged cured from general hospitals, one of the questions put to the authorities of these institutions, in Dr. Webster's schedules, specially referred to that subject. Owing, however, to the difficulty of discriminating absolute cures from those cases which left the wards with a fair prospect of future convalescence, it became difficult, if not impossible, to discuss this important point in a satisfactory manner. Nevertheless, according to the valuable returns obtained from several charities, the author considered himself justified in saying, that more sick inmates were cured in the larger than in less extensive establishments; in reference to the total admissions, that surgical patients oftener recovered than medical; that females treated in the medical division became convalescent in a greater proportion than males belonging to the same department; and further, that surgical patients of the male sex recovered from their various maladies in smaller numbers than female inmates similarly circumstanced. Dr. Webster concluded by citing the Report of the Registrar-General on Hospital Statistics, as confirmatory of his own conclusions.

In the course of the discussion, it was admitted that Dr. Webster had laid the Profession and the public under deep obligations for his labours in respect to hospital statistics. In consequence of the imperfect character of the information which had been supplied from some of the hospital authorities, the statistics in many respects did not convey the full amount of information requisite from such a source. When a better system of statistical reports from hospitals

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has been adopted, these errors and deficiencies will be avoided. Dr. Webster has, by his energetic labours, already given an impetus in the right direction.

MEDICAL NEWS.

NAVAL APPOINTMENTS.—Surgeon John Gibson (1835) to be Surgeon Superintendent of the Minden convict-ship. Surgeon John Smith, (*c.* 1830,) from the Impregnable flag-ship at Devonport, to the Blenheim convict-ship.

MEDICAL APPOINTMENTS AND VACANCIES.—The resignation of their offices by Messrs. Cutler and H. Lee, have caused the surgeoncy and assistant-surgeoncy to the Lock Hospital to be vacant. Mr. H. Lee is, of course, a candidate for the surgeoncy, and Mr. J. R. Lane is seeking for the assistant-surgeoncy, for which he was a candidate at the last election. The appointment of an apothecary to the Bloomsbury Dispensary will take place on the 18th inst.

PEMBROKE COLLEGE, OXFORD.—An election will take place on the 27th inst. of a Fellow, on the foundation of Mrs. S. Sheppard. All members of the University, being B.A., are eligible. The person elected will be required to proceed, in due time, to the degrees of M.B. and M.D. in the University. The examination, which is the same as for all Fellowships, will commence on the 26th, at nine a.m., in the College Hall.

MEDICAL DISPENSARY AND LYING-IN CHARITY, OXFORD.—The result of a charity sermon, recently preached by the Warden of New College, at St. Mary Magdalen Church, in behalf of the funds of this Institution, was a collection amounting to 24*l.* 16*s.* 1*d.*

UNIVERSITY OF MADRID.—There has been a riot lately at this University, and a fight between the police and students, originating in the increase in the matriculation fee, which the students, being principally persons of slender resources, were unable to pay. This caused great discontent, especially among those belonging to the medical and veterinary schools; and this was greatly added to by one of the professors of philosophy (?) recommending his class not to follow the example of the *cataplasmeros*. This contemptuous title, applied to the medical *alumni*, roused their indignation, and, having assembled in large numbers, they hissed and hooted the insolent Professor. This led to the armed intervention, (we love big phrases sometimes,) and in the tumult that ensued several of the students, some of them mere boys, were severely wounded. The whole affair reflects no credit on the parties concerned. The Professor should be dismissed in disgrace. The man who cannot control his temper, and uses disgraceful and disgusting epithets, is unfit to teach.

EPIDEMIOLOGICAL SOCIETY.—At the ordinary meeting, held on the 2nd instant, at the house of the Royal Medical and Chirurgical Society, Dr. Snow read the remainder of his paper on the Mode of Propagation of Cholera, commencing, however, with an abstract of the portion read at the former meeting. He enumerated many circumstances in the history of Asiatic cholera, and some particular facts which he considered to prove that the malady was propagated by human intercourse, as, indeed, he believed all epidemic diseases to be. He stated his belief, that there was no evidence opposed to the communicability of cholera; for the facts thought to bear this construction were only considered to do so on the assumption, that if cholera be communicated, it must extend itself, as the eruptive fevers are believed to do, by means of some emanation given off from the patient into the surrounding air, or by contact with the patient, or articles of clothing which had been near him. Nearly all the arguments which were thought to disprove the communication of cholera, would apply equally well to syphilis, did we not happen to know the way in which it is communicated. He considered that cholera always commenced by a local affection of the alimentary canal, and that the constitutional symptoms were always the result of the local disorder. It followed, therefore, that being a communicated disease, and commencing by a local affection, the morbid poison must be applied to the part first affected; that, in short, the cholera poison must be swallowed, must multiply itself in the alimentary canal, and pass off in the fæces and matters vomited, and that the disease must be communicated by these evacuations being accidentally swallowed. He enumerated many circumstances giving a general support to this view of the propagation of cholera, one of these circumstances being, its increased prevalence from want of personal cleanliness, whereby those waiting on the sick could not fail to contaminate the food which they ate themselves or prepared for others. Some particular instances of apparent communication of cholera by means of articles of food were also related. The Author continued to the effect, that in his opinion cholera was likewise often communicated by means of drinking water, owing to the contents of drains and sewers being emptied either accidentally or systematically into the source whence supplies of water were taken. He related the particulars of many violent local outbreaks of cholera connected with the contamination of limited portions of water, and stated that the sudden way in which these outbreaks took place immediately after the evacuations of one or more cholera patients entered the water, precluded the supposition that the impure water was merely a predisposing cause. The great prevalence of cholera in the south districts of London and in many large towns was connected with the drinking of river water into which sewers emptied; and in Rotherhithe and Bermondsey, the metropolitan districts in which cholera was most severe, many of the inhabitants had no supply of water except from certain tidal ditches, which received great quantities of excrementitious matters, and those inhabitants suffered more than their neighbours. In the towns, such as Birmingham, in which this connexion between the sewers and the drinking water did not exist, the cholera either did not spread, or extended itself only among the poor and dirty. All the early cases of cholera in London in the autumn of 1848, following one in a seaman from Hamburgh, who died near the Thames, in Horsleydown, occurred amongst persons who obtained their water by dipping a pail into the river, or from St. Bride's pump, which had a communication with the river by means of the Fleet-ditch sewer. He believed that several diseases, including abdominal typhus and the plague, were communicated in the same way as cholera, and that ague was often caused by drinking the ditch water of marshy places. He considered that the progress of cholera could be better stayed by sanitary measures than by quarantine regulations; but the sanitary measures should have a relation to the mode of communication of the disease, or they might be injurious instead of beneficial; the late epidemic of the cholera having, he believed, been much aggravated in London, and especially in Hull, by presumed sanitary measures.

GRANT MEDICAL COLLEGE, BOMBAY.—Diplomas in Medicine have been recently granted to eight native medical students, who acquired their medical knowledge at this Institution. The Chief Justice presided. The occurrence is principally noticeable from its being the first of the kind in Bombay. The young men belonged to the Hindoo, Portuguese, and Parsee races; and their acquirements were highly lauded by the Government examiners.

NICOTINE.—An extraordinary trial is now going on in Belgium; the accused, the Viscount and Viscountess Bocarme being charged with the murder of the Viscountess' brother by nicotine. The Viscount, who is in embarrassed circumstances, had for some time past addicted himself to the study of vegetable chemistry, and, as he himself acknowledged, had obtained several phials full of nicotine. The contents of one of these, the Viscountess asserts, he forced into his brother-in-law's mouth, and thus produced instant death.

DEATHS *in the Metropolis for the week ending Saturday, May* 31, 1851.

CAUSES OF DEATH.	May 31				Sum of Two Weeks.
	0	15	60	All Ages	
ALL CAUSES	473	316	185	990	3547
SPECIFIED CAUSES	472	316	185	973	3503
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	169	38	13	220	1730
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	2	21	17	40	469
3. Tubercular Diseases.	71	117	12	200	1394
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	54	25	19	98	1671
5. Diseases of the Heart and Blood-vessels	5	21	12	38	330
6. Diseases of the Lungs, and of the other Organs of Respiration ...	82	21	33	136	1068
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	28	31	20	79	554
8. Diseases of the Kidneys, &c. ...	...	3	4	7	83
9. Childbirth, Diseases of the Uterus	...	10	2	12	92
10. Rheumatism, Diseases of the Bones, Joints, &c.	2	6	1	9	73
11. Diseases of the Skin, Cellular Tissue, &c.	1	1	1	3	17
12. Malformations	5	...	...	5	41
13. Premature Birth and Debility ...	22	1	...	23	268
14. Atrophy	18	1	1	20	136
15. Age	...	...	45	45	442
16. Sudden	1	...	1	2	161
17. Violence, Privation, Cold, and Intemperance	12	20	4	36	221
Causes not Specified	1	...	...	17	39

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ORIGINAL LECTURES.

LECTURES
ON
DIGESTION, RESPIRATION, AND SECRETION,
GIVEN AT THE ROYAL INSTITUTION, TO THE MEMBERS, AND TO THE PUPILS OF ST. GEORGE'S HOSPITAL.

By H. BENCE JONES, M.D., F.R.S.,
Physician to St. George's Hospital.

(Continued from page 582.)

ON THE GASTRIC JUICE.

The subject, gentlemen, of my lecture to day is the gastric juice. All of you have probably heard of a Canadian, St. Martin, who had a fistulous opening in his stomach, through which the process of digestion was watched by Dr. Beaumont. In consequence of the observations made on this Canadian, we obtained the most accurate information regarding the nature and properties of the gastric juice. By making a similar opening in the stomach of the dog, much more has been done regarding the digestion of animals. During the last ten years the most important researches have been carried on by making these artificial fistulous openings.

It has been found that the stomach, when empty, has no acid re-action; that the mucus of the stomach is not acid, but that when the stomach is irritated, either mechanically through the fistulous opening, or by food being taken, a highly acid liquid is poured out; this liquid has been called the gastric juice. It is very difficult to obtain any quantity of it free from food or from saliva. Mechanical irritation through a fistulous opening is clearly the only mode by which it can be obtained in a free state, that is, unmixed with food or other secretions; and it is difficult in this way to obtain any quantity of fluid. Frerichs, who has written the latest and best work on digestion, has given us an analysis of the gastric juice obtained by mechanical irritation from the stomach of the horse.

Gastric Juice.—Horse.

Water	98·28
Solids	1·72
Ferment soluble in water . .	0·90
Ferment soluble in alcohol .	0·08
Fat	Trace
Chlorides } Sulphates }	0·64
Lime, salt, and iron . . .	0·10

These are not the absolute numbers, true in all cases, but they are sufficiently accurate for the purpose of showing the general composition of the gastric juice. There are ninety-eight parts of water (more even than in the saliva and the pancreatic juice) and two parts only of solid matter. In this analysis you see no mention made of the acidity of the gastric juice; the acid is classed partly among the salts, and partly, possibly, in the ferments. It is not established what the nature of the acid certainly and positively is; but I shall have occasion to speak much more on this subject in a few moments. The gastric juice, when obtained free by irritation, is said to be clear, transparent, colourless, or slightly yellow. Its specific gravity is very little above that of water; it is very acid; it does not become cloudy with heat; it is remarkable for remaining long without undergoing decomposition; even when mouldy, it is found that it still digests. Generally, we may state the gastric juice contains water, albuminous substances, and salts. I purpose taking these separately, and considering their action upon the different substances which are taken as food.

It is comparatively easy to obtain gastric juice mixed with food and saliva. You already know the composition of saliva, and can clearly make allowances for it and recognise what is due to it; but it is not at all easy to make a perfect allowance for the food mixed with the gastric juice. I have before me some specimens of this fluid, not perfectly free, but mixed with certain ingredients of the saliva and of the food. I have one specimen obtained from the stomach of a healthy man, two hours after animal food and distilled water were taken. The contents of the stomach were rejected and thrown on the filter, the solid matter remaining and the clear liquid passing through. We have then, in this liquid, a certain portion of saliva, a certain quantity of distilled water, and those ingredients of the animal food which could be dissolved after two hours' action of the juice. I told you of the acids and the soluble salts existing in flesh; no doubt some portion of these, including some lactic acid, would be dissolved in two hours, and so also a portion of the organic constituents of the flesh would be taken up. I have also, in this specimen, the gastric juice from the contents of a stomach two hours after vegetable food was eaten. The food that appeared to me most desirable to be taken was potatoes, because they contain the smallest amount, as you will see in a future lecture, of albuminous substance, and I wished especially to see the action of the gastric juice upon potatoes. The process by which the fluid was obtained was precisely similar to that of obtaining it from animal food; this liquid, therefore, is gastric juice, diluted with distilled water, and containing those parts of the potatoes which could be dissolved in two hours; it clearly, also, contains the soluble constituents of the saliva. I might mention, before proceeding to examine these fluids, that flesh has a certain degree of acidity; and potatoes also have an acid reaction, containing hydrochloric acid, malic acid, and phosphoric acid. When potatoes are boiled they lose a good deal of these acids, being partly dissolved in the water used to boil them. Other most interesting substances exist in potatoes, on which I have no time to dwell,—such as these beautifully crystalline substances known as asparagine and solanine; the latter is obtained from the seed.

I must proceed with the examination of these liquids, which are mixtures of gastric juice and saliva, with the soluble constituents of the food. The saliva was alkaline, and, as far as it is present, it must tend to reduce the acidity of the gastric juice; nevertheless, the mixture shows, as you see by the common test of litmus paper, an intense acid re-action. The acid re-action of the gastric juice after vegetable food is scarcely, if at all less than that after animal food; perhaps it is even greater. I might show you the acidity of the mixtures still more distinctly by the effervescence produced when bi-carbonate of potash, for instance, is thrown into them. If the paper test could mislead us, the effervescence showing the displacement of the carbonic acid from the bi-carbonate of potash is most convincing.

What the nature of the acid is which causes this re-action has not yet, and cannot yet be fully determined. Dr. Prout, in his admirable experiments made many years ago, came to the conclusion, and I believe the right one, that it was hydrochloric acid; and, if authority might be admitted in chemistry, that of Dr. Prout would be conclusive on this point. But later experiments seem to throw some doubt on this point; and it is thought possible that, at times, no hydrochloric acid exists in the stomach, but lactic acid instead; it is highly probable that not only do hydrochloric acid and lactic acid exist in the stomach, but also acetic acid, butyric acid, and phosphoric acid. These five acids pretty certainly exist there at different times, if not altogether. It is possible that lactic acid, acetic acid, and butyric acid, which are organic acids, may come from the changes in the starch and sugar taken as food, of which I have before spoken; but phosphoric acid and hydrochloric acid are not organic acids, and they cannot come from food, unless it be that a very small quantity of the latter is found in the potato, which is by no means certain. But supposing a portion of hydrochloric acid to be present in the potato free, we have still phosphoric acid, which does not occur free in our food. The great portion, both of phosphoric acid and hydrochloric acid, which we take into the body, goes in as chlorides and phosphates, which are taken in all kinds of food. It is highly probable that chloride of sodium (common salt) is the source of much of the hydrochloric acid which exists in the gastric juice, and that the phosphates are the sources of the phosphoric acid. Whatever the means may be by which these inorganic acids are separated from the bases, I must not now dwell upon them. Whether it be by electricity, or nervous action, or muscular action, at present it must suffice for us, that hydrochloric acid and phosphoric acid go into the body as salts, combined with alkalies, and in the stomach the acids are set free, and thus produce the acid re-action which you see is present.

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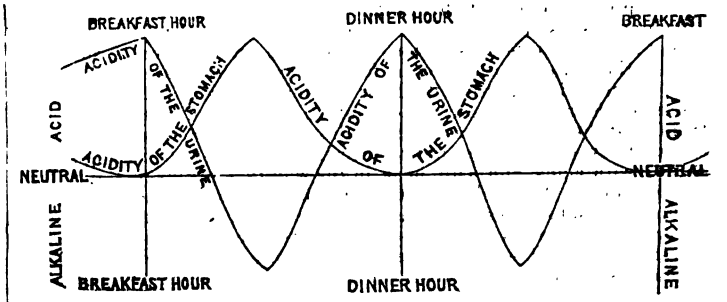

When the stomach is empty, there is, as I have told you, no acid in it; for the most part, the reaction is then neutral or alkaline. In my diagram the centre horizontal line may be regarded as the line of neutrality, representing the condition of the stomach when empty. As soon as food is taken, irritation begins, and acid is poured out in increasing quantities, until a certain time after digestion, (say two hours,) when it would be at its highest. This is represented by the rising of the line. The acid remains in the stomach for some time, perhaps two hours or four hours, according as the digestion is quick or slow; and as the food begins to be absorbed, or to pass out at the pylorus, the acid decreases until the stomach becomes empty, when there is a neutral re-action again. Food is again taken, and there is a gradual increase of the acid as before; afterwards, as the food passes out, or is absorbed, the acidity decreases, until the stomach is again in a neutral state.

If one equivalent of hydrochloric acid is set free in the stomach, it is quite clear that one equivalent of alkali must be set free somewhere else; and my reason for believing that soda is actually liberated at this time in the blood is this,—that when the gastric juice becomes more acid other secretions from the blood become more alkaline; and when the acidity of the gastric juice is highest, that of the serum is probably lowest. Hydrochloric acid has gone into the stomach, and soda is set free in the blood; the hydrochloric acid being, of course, separated from the soda, leaves so much more of the latter to have its re-action in the blood; hence the opposite state of the alkalescence of the blood and the acidity of the gastric juice. When the acid of the gastric juice returns with the food into the blood, the serum must become less alkaline than it was before. These variations take place rapidly, being completed in from three to eight hours. I shall show you, in another lecture, that the variations in the alkalescence of the serum are demonstrated by the variations in the re-action of the urine secreted at different periods of the day. Thus much, then, for the acid reaction of the gastric juice. It is one of its most striking, and one of its most important peculiarities. That it is acid is quite certain; that the acid varies in quantity is equally clear; that the acid is frequently and partly, if it be not always and entirely, hydrochloric acid, is also certain; and that lactic acid is probably present, there can be no doubt, from the latest experiments. Whether the other acids I have mentioned occur more than occasionally is not yet determined.

I come, secondly, to the next most important constituent of the gastric juice—the albuminous substance, or ferment, named *pepsin*. This substance may be obtained pure in the following way:—A piece of the stomach—experiments have chiefly been made with the fresh stomach of a pig—is taken, and the mucous membrane is separated from the sub-cellular tissue which lies below, which, if treated with boiling water, would give rise to gelatine; this mucous membrane is washed in water, to get rid of any impurity on the surface; it is then soaked in distilled water, and, when quite soft, a portion of the mucus is scraped off with a spatula. The matter scraped off is treated with a little acidulated water; it rapidly dissolves, and the solution becomes tolerably clear. The solution is precipitated by alcohol, and the precipitate is called pepsin; when redissolved in acidulated water, it constitutes the solution of pepsin, which has been occasionally used as medicine. This substance is soluble in water, as I have said, and still more soluble in dilute acid; precipitable by bichloride of mercury; perfectly precipitated by basic acetate of lead and gallic acid; imperfectly by neutral acetate of lead; does not become cloudy when boiled; with dilute hydrochloric and lactic acid it possesses strong digestive action; but, like gastric juice, it loses this power when boiled, when treated with absolute alcohol, and when neutralised by alkalies. It is not clearly albumen, but closely approximates to it; differing from it as much as the synaptase or diastase differs from the proper albuminous substance existing in the vegetable, as much as yeast differs from the albuminous substance, or as much as any of the albuminous substances differ from one another. That pepsin is contained in the digestive fluids which I have here, may be made plain thus:—A little of the fluid is taken, and nearly, not quite, neutralised with potash, and then mixed with a considerable excess of alcohol, when an albuminous precipitate will be formed. (Experiment.) I have here two precipitates thus obtained, one from the fluid after animal food, and the other after vegetable. That from the animal fluid is the most bulky, because the pepsin with the acid has dissolved a portion of the meat, and meat, we know, is a much more albuminous substance than potatoes. Wasmann, a German physiologist, says that one sixty-thousandth part of this pepsin, when dissolved in water and acidified, will dissolve one part of coagulated albumen in from six to eight hours. That a considerable quantity of albuminous substance exists in the fluid obtained after the digestion of animal food, will be made plain if I add to it a little sulphate of copper and liquor potassæ, when a purple colour will be produced.

The peculiar properties of the pepsin you will see more clearly by considering the action of the gastric juice on the different constituents of the food of man. The water and the free acids of the gastric juice can by themselves clearly dissolve alkalies, earths, and those metals which are soluble in water and acid; but, though the water and the acid can dissolve these, we have to consider how the other substances,—the non-nitrogenous substances,—are acted upon; or are they not acted upon by the gastric juice at all? The most accurate researches, made by means of fistulous openings in animals, show that, if all the saliva is kept carefully away from the stomach by a ligature passed round the œsophagus, and if food is conveyed to the stomach through the artificial opening, the albuminous portion is dissolved as well as if the saliva had acted upon it; but if starch is thus placed in the stomach no action takes place; starch, indeed, may be mixed with the gastric juice, and be kept at the temperature of the body for some hours, without any change taking place. The re-action which I showed you of the saliva upon starch will explain why the starch is not acted upon under these circumstances. If no saliva passes into the stomach, there is none of that peculiar ferment present which has the property of acting upon starch; but if the saliva be allowed to pass through the œsophagus, a totally different result is obtained, for then very much of the starch is changed into gum and sugar. The experiments of the German physiologists show that this change does not depend in the least upon the action of the gastric juice. That the change actually does take place, I might perhaps occupy your time a moment in showing. If I take some of the fluid which, in the stomach, has been acting upon the potatoes,—this fluid, in which gastric juice and saliva are present,—and apply the ordinary test for sugar, sulphate of copper and liquor potassæ, a reduction will take place rapidly, showing that the saliva has converted the starch of the potato into sugar. (Experiment.) If, however, I could have tied the œsophagus, so as to prevent the mixture of saliva with the gastric juice, I have not the least doubt, judging from the German experiments, that not one particle of this reduction would have taken place. That the whole of the starch is converted into gum and sugar, may be shown by a very easy and decided experiment. I have here the contents of a stomach two hours after digestion. If I take a portion, and add the test for starch, (iodide of potassium, dilute hydrochloric acid, and nitrite of potass,) a red colour will be produced, indicating the presence of dextrin; while, if there had been any starch present, I should have had more or less of a blue tint. (Experiment.) I ought to tell you, that, in the process of cooking, a part of this change of the starch into gum certainly takes place; but that much starch still remains after cooking may be shown by an easy experiment,—that of putting a little iodine upon a cooked potato, when the presence of starch will be apparent.

The gastric juice has no solvent action on fats; the temperature of the stomach may melt it, but the gastric juice does not dissolve or sub-divide it.

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The proper action of the gastric juice, then, is upon albuminous substances; and it is necessary that we should look a little closer to this action. If muscle, or albumen, such as the white of an egg, or if fibrin or casein be treated with the artificial digestive fluid, or if they are taken into the stomach and afterwards taken out and examined, it is found that the albumen has not then the common re-actions of that body—that it does not re-act with ferro-prussiate of potash, with acids, and with heat, in the way that ordinary albumen does. What change, then, has taken place in the albuminous substances? It has been said that they are changed into protein; but this is a mistaken theory. The digested muscle, of which you saw a portion precipitated by alcohol, is not a body free from sulphur and phosphorus, as protein must be. It is found, also, that these albuminous substances, after they have been acted upon by the pepsin and the acid, do not contain more water than before, and that there is no formation of that body which has been called incipient albumen. What, then, does occur? One theory, which is very beautiful, and would make the process very plain to us, is this: that the pepsin and the acid combine together to form what has been called hydrochloropeptic acid—a name that could only have come from Germany. This has been supposed to be formed something like sulphosaccharic acid or sulpho-vinic acid; and it is said that this compound acid combines with the albumen, the fibrin, and casein, forming salts which have different re-actions from the original substances. This would be a very beautiful theory, but there are not sufficient facts to warrant it. Yet the albuminous substances have undergone some changes; and thus a different name has been given to them, though we do not know what the changes actually are; they are called, after they have been acted on by pepsin and hydrochloric acid, "peptones;" thus there is albumen peptone, fibrin peptone, gelatine peptone, etc. Gelatine, for instance, which you know is a body so named from its property of forming a jelly, loses this property when acted upon by the acid and the pepsin together; it loses its property of gelatinizing, and of being precipitated by chlorine, and thus is converted into gelatine peptone. Dilute acid alone does not produce this effect,—it is effected by the pepsin and acid acting together. I do not profess to tell you definitely what the peptones are; it is sufficient for my purpose to point out the name, to mark that some change has taken place by the digestive action. The change is probably at most analogous to the change of starch into dextrin. You may form these peptones out of the body by taking natural gastric juice or artificial digestive fluid, and digesting them with coagulated albumen, fibrin, casein, legumin, gluten, until these are dissolved. The fluid is then filtered and evaporated.

The nitrogenized pepsin and the acid must act together in the process of digestion. If, during this process, I neutralise the acid by mixing it with alkali, however energetic the pepsin may be, digestion will not take place. In a previous lecture, I showed you some white of eggs treated with hydrochloric acid, and you saw how little was dissolved; and even now, after some days, the acid alone has failed to dissolve it; but if I were to mix it with the pepsin, and subject it to heat, I should find a much more rapid action would ensue. It is clear that both the pepsin and the acid must be present, and act simultaneously, to produce a solution of the albuminous substances, and to form the peptones. Pieces of bone are acted on in a totally different way when treated with dilute acid alone, and when treated with gastric juice. Lehmann has found that the same quantity of pepsin, and the same quantity of hydrochloric acid can have their action increased by increasing the quantity of water. Thus the conclusion is (within certain limits of course) that taking water is not a hindrance to digestion, a certain degree of dilution being necessary to enable the albuminous substance to dissolve. Lehmann found also that the digestive power of the same quantity of pepsin, say ten or twenty grains, could be increased by increasing the quantity of acid. He found that a certain proportion of the acid of water and of the pepsin must be in action to form the peptones. He also found the equivalent quantities of hydrochloric and lactic acids can replace one another in artificial digestion, and that acetic acid and phosphoric acid have much less power than hydrochloric and lactic acids. Too much acid, as well as too little acid, can stop digestion from taking place; so that, if too little of either substance was present, the formation would not take place. The digestion of starch may be completed with saliva and water only, while the digestion of the albuminous substance is not at all effected by saliva; and reversely, the digestion of the albuminous substance may be effected by the pepsin, acid, and water of the gastric juice alone, without saliva; while starchy substances will not be changed at all in the stomach, on account of the absence of the proper quantity of saliva; then the starch requires to be passed into the bowels to have the further action of the pancreatic juice.

The conclusion, then, to which we come is, that the proper action of the gastric juice is the solution of albuminous substances. This action is promoted, first, by *temperature;* for it is found that at an ordinary temperature, say from 54° to 60°, the temperature of this room, no solution takes place. I have the contents of a stomach, which have been here for many hours, and probably there is not now a particle more in solution than when the contents were first removed; the temperature of the room has been sufficiently low to check all further action; and it must be raised to 96° for a further solution to take place. The next great agent is *motion*. During the time of digestion, a certain motion is, without doubt, constantly taking place in the stomach; but digestion may take place without any such contraction or gentle rubbing as one may suppose the stomach to be undergoing: this is proved by the fact that food will digest when placed in perforated balls, which allow the mixture of the food with the gastric juice. Thirdly, *salts* are of importance in the process of digestion. Common salt, without doubt, promotes the secretion of acid by its irritation and by its chemical action on the mucous membrane of the stomach. If very much common salt, however, is taken, the process of digestion appears to be retarded. So also with other salts. It is probable that even *calomel* has this property of stimulating the mucous membrane of the stomach, and thus, at times, of aiding the digestive process. Another great agent in promoting the action of the gastric juice, is *the removal of substances as soon as they are dissolved.* As soon as substances are dissolved they are enabled to escape, some of them by being absorbed into the veins, and some of them by passing out through the pylorus. That some of these soluble matters are constantly being removed from the stomach by the veins is proved by tying the pylorus, and finding that in the case (for instance) of a stomach filled with milk, the watery part of the milk will be taken up from the parietes of the stomach by the veins, whereby the casein is left and is much more slowly dissolved, it is certain that the solution is always going on, that a part of the contents of the stomach is always being dissolved, while the process of digestion is proceeding. Lastly, it has been shown by the experiments of German physiologists, that atmospheric air is not at all necessary to aid digestion. If the contents of a stomach be placed in a perfectly air-tight vessel, and exposed to a proper temperature, digestion will take place.

We come, then, Gentlemen, to the conclusion, that the ferment in the saliva is the substance which acts chiefly upon the most important non-nitrogenous constituent of our food, namely, starch; and that the ferment in the gastric juice acts chiefly upon the albuminous or nitrogenous constituents. Agents that stop fermentation stop digestion; for example, strong acids, alkalies, heat, alcohol. The stomach ferment differs from the saliva ferment, in losing its action when heated or when treated with strong acid or alcohol; also by its necessary union with an acid. The acid determines the mode of action and regulates it. If carbonate of potash or soda is added in excess, a totally different action of the ferment ensues, decomposition begins. Slightly altered ferment, like slightly altered yeast, may set up lactic or butyric acid fermentations, and there is reason to suppose that acetic acid fermentation may also occur. You will remember that the substances existing in the food I divided thus:—Water, which can be taken up of itself; mineral matters, which are soluble in water or in dilute acid; non-nitrogenous organic substances, some soluble, as sugar, and others, as starch, insoluble in water, but acted upon immediately by the saliva; others, as cellulose, insoluble even by the saliva or gastric juice, and which cannot, therefore, serve for the nutrition of the body; and, lastly, nitrogenous substances. The fluid which acts upon this last class of substances is the gastric juice; it is the proper agent for rendering them soluble. It converts the albumen, fibrin, and casein, into albumen peptone, fibrin peptone, and casein

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peptone, which are soluble in water, and are, therefore, easily taken up into the body to serve the purposes of life. It remains only for me to mention the fatty substances; and I shall take the opportunity, in my next lecture, more especially to dwell upon these, when speaking to you about the nature of the bile.

LECTURES ON PUBLIC HEALTH.

ADDRESSED TO THE STUDENTS OF THE THEOLOGICAL DEPARTMENT OF KING'S COLLEGE.

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(Continued from page 478.)

CONTENTS. — Contagious Fevers. — The Plague, Black Death, Sweating Sickness, Camp, Gaol, and Ship Fever.—Contagious Fever, the Disease of Crowds.—Typhus Fever, a very dangerous, lingering, loathsome, and intractable malady, the analogue, if not the successor of the Gaol Fever.—The Causes of the two Fevers identical.—The Houses of the Poor are now what our Prisons were.—The Water supply of our large Towns compared with that of our Prisons in Howard's time.—Reports of the Health of Towns Commission.—Water begged, stolen, or fought for.—Impurity of the Air.—Testimony of Medical Men.—Want of Light.—Operation of the Window-tax.—The Gaol and the Cellar.—Courts and Cellars of Liverpool.—Defective Drainage.—State of our large Provincial Towns.—Of the Metropolis.—Police Report of 1849.—Want of proper Bedding. —Overcrowding: intimate relation of high Mortality and density of Population—Mr. Farr's calculations.—Relative Mortality of Town and country.—Prevalence of Typhus Fever in the crowded Courts and Cellars of Liverpool.

ALTHOUGH I have already said much about the gaol fever of the last century, and something about the house or typhus fever of our own times, I have not yet told you what sort of a disease that gaol fever was; what sort of a disease this typhus fever is.

Most of you, doubtless, have had some experience of fever, either in your own persons, or in the persons of relatives or friends. You all know thus much about it:—that it is a very dangerous, a very lingering, a very loathsome, and a very intractable malady; and that, in common with small-pox, meales, scarlet fever, hooping-cough, and erysipelas, it spreads from person to person; in other words, that it is infectious or contagious. I may here state, once for all, that medical men are in the habit of using these two terms contagious and infectious, without much discrimination, to characterise diseases spreading from person to person.

Now, there are some fevers which are infectious or contagious, and some which are not. Ague, for instance, is not a contagious disease. It does not spread from person to person. But it belongs to the class of fevers, and is otherwise known as intermittent fever. Again, children and young persons are subject to attacks of a fever known as infantile remittent fever—a disorder to which I alluded in a former lecture, as brought on by errors of diet and overcrowding. This, too, is not contagious or infectious. There is also another form of remittent fever, known as yellow fever, of constant occurrence in tropical countries and hot climates; and, this too, except, perhaps, under very rare circumstances, does not appear to be communicated from person to person.

On the other hand, there is a class of fevers which is contagious or infectious, and to that class gaol fever and typhus fever belong. There is, indeed, the very best reason to believe that gaol fever and typhus fever are one and the same disease, characterised by the same symptoms, and owning the same causes, predisposing and exciting; typhus or house fever being the legitimate successor of gaol fever, as the house of 1850 is the recognised heir to all the filth, foulness, and overcrowding of the prison of 1774.

But the gaol fever of the last century and the house fever of this, belong, in reality, to a still larger class of febrile diseases, characterised by the common property of being communicable from person to person, and which, under different names, have at different periods scourged and depopulated the earth.

Under the general name of "plague," it has been but too well known in ancient and modern times, having been conveyed from Africa, its birth-place, and Egypt, its cradle, to every large city and populous nation in Europe. It spread over the whole western world in the year 167, and carried off innumerable victims. Under the name of the black death it is said to have destroyed, in the middle of the 14th century, half the population of Europe. Its ravages at Athens during the Peloponnesian War, and at Venice, Marseilles, Milan, and London, in more modern times, are familiarly known to every reader of history. It ceased to be epidemic in London in 1665, but it scourged Marseilles so late as 1720. It still finds itself at home in the reeking streets and houses of Grand Cairo and Alexandria, as it did in London, and the chief commercial cities of the continent, when they were in filth and foulness, what Cairo and Alexandria now are. As the sweating sickness, (a pestilential fever, imported into Europe, as it is thought, by the Turks engaged in the Siege of Rhodes) it broke out in the year 1485 among the victors of Bosworth Field, and continued to rage at intervals of time, as in 1506, 1517, 1528, and 1551, carrying death and destruction throughout the kingdom. All these epidemics go by the common name of plague, though more than one of them was destitute of the characteristic feature of the true oriental plague; I mean the formation of buboes or swelling of the glands, and carbuncles.

As the camp fever, again, it has been recognised as the disease of armies in the field, seven-fold more fatal than the sword of the enemy, so that Frederick the Great,—no mean authority,—estimated one attack of fever as worse than seven battles.

As the gaol fever, (the subject of my last lecture,) it infested the crowded prisons of England, causing their wretched inmates,—often poor debtors,—literally to rot in gaol, infecting our courts of law, our armies, and our fleets, and spreading far and wide among the people.

As the ship fever, it broke out over and over again in crowded and filthy vessels and fleets; but is now nearly banished from our navy.

And lastly, under the name of typhus fever, this pestilence of modern times still lingers in the filthy and neglected districts of our large towns, raging, sometimes with more, sometimes with less violence, but ready to assume the virulence of an ancient plague if encouraged and fomented by want and misery. Hence its league with the Irish famine.

Fever, under its several modifications,—as the black death, the sweating sickness, the plague, the camp, gaol, or ship fever, the parish infection, and the typhus fever of modern times, had one or two common properties. It has been the disease of crowds,—of crowded camps, crowded towns, crowded gaols, crowded ships, crowded hospitals, crowded workhouses, crowded dwellings,—of crowds, however, brought together under circumstances favouring the accumulation of filth, and the contamination of the air. It is the disease of crowds, because crowds are generally the means of accumulating filth, and generating impure air. In former times, fever was always breaking out in our ships, because they were crowded and filthy. It is now extremely rare, at least in temperate climates and healthy latitudes, because, with somewhat less of crowding, there is an absence of filth. So also with prisons; because formerly prisons were filthy—now they are models of cleanliness. The same principle holds good now with our typhus fever, which, having deserted our prisons, as being too clean for it, takes up its abode in crowded unions, and nightly refuges for the destitute, and low lodging-houses, and the neglected habitations of the poor, in town amd country, where it finds the filth and overcrowding so congenial to its taste. This typhus fever, then, of which I am speaking, is a contagious or infectious malady, and, in common with the pestilences to which I have just alluded, is a disease of crowds—encouraged and promoted, in a very striking manner, by every thing which tends to impair the purity of the air.

I have said that typhus fever is a very dangerous, a very lingering, a very loathsome, and a very intractable malady. Dangerous: for though in some epidemics it has not destroyed more than 1 in 40 of those whom it has attacked, in others it has carried off a tenth, an eighth, a seventh, a sixth, a fifth, a fourth, a third, and even a half;—lingering: for the average duration of the fever itself, in cases which terminate favourably, is three weeks, and the average duration of the convalescence from two to three weeks more;—very loathsome: with its tainted breath, black tongue, furred teeth, offensive, involuntary evacuations, and

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putrid bed-sores;—very intractable: for though we can do much to mitigate symptoms, and avert certain contingent dangers, and by the free use of stimulants counteract (as it has been happily expressed) the tendency to death, we possess nothing deserving the name of a remedy. This consideration, added to the extreme prostration of strength, the rapidly increasing emaciation, the muttering delirium, the confused consciousness, the utter helplessness, make a case of typhus fever one of the saddest subjects of contemplation for all who are called upon to witness it. Add to this, that the great majority of its victims are adult males and females in the prime of life, most of them with young families dependent upon them, and it will be readily admitted that few diseases are more distressing.

This, then, is the pestilence of which I am now to give you a more detailed account; which, in accordance with my promise I am to prove to be, in its causes and concomitants, the perfect analogue of the gaol fever of Howard's time, indeed, in all human probability, the selfsame disease.

With a view to this demonstration, I will first briefly recapitulate the leading particulars of the state of prisons as described by Howard, and then proceed to show you how completely, in each of those particulars, the houses of our own day resemble the gaols of the last century.

Howard tells us, if you recollect, that many prisons "are scantily supplied, and some almost totally unprovided with the necessaries of life," to wit, water, air, and light, conveniences for the reception and discharge of offensive matters, bedding and clothes, food and medicine; at the same time that they offered every facility for the indulgence of vicious tastes, and the formation of depraved habits. You will recollect, also, that Howard especially points out the great evil of overcrowding, and that he found this and the other evils I have specified carried to excess in prisons that were private property.

So much for the physical circumstances which combined to foster and perpetuate the now extinct gaol fever.

Then, as to the fever itself and its characteristics:—I showed you that it was a very fatal disease; that it spread to our barracks and fleets, and to the poor population of our towns and villages; and even, in some instances, from the healthy inmates of gaols to judges, sheriffs, and juries assembled to try them.

Now, I propose to take these several points one by one, and to show that, in regard to each and all of them, the state of our houses, and of certain of our public establishments in the present day, is the exact counterpart of that of our prisons in Howard's time.

I begin with the supply of water. In the year 1844 the Health of Towns' Commission addressed a series of questions, referring to water supply and drainage, and other matters of importance, to competent persons in fifty of the most populous towns in England. Their replies are embodied in a Table appended to the first Report of the Commission. I extract a few of the replies which relate to the supply of water, premising that the Report itself sums up the information thus obtained in these words:—"Only in six instances could the arrangements and the supplies of water be deemed good; while in thirteen they appear to be indifferent, and in thirty-one bad, and frequently inferior in purity."

On turning to the column of the table which refers to the supply of water, we encounter over and over again such expressions as this—"The poor are badly supplied;" "poor very badly supplied;" "the poor badly off for water;" "the poor very inadequately supplied;" "great difficulty experienced by the poor in procuring water;" "the poor greatly in want of water;" "no supply for the poor," (reminding us of Howard's statement, that many prisons have no water.) Or the disgraceful history is varied thus: "The poor supplied by pumps and wells from the factories, and by begging;" "the poorest people beg water;" "no supply for the poor; obtained by begging, and from the river;" "from the fountain in the market-place, by wells, and by begging;" "poor beg water of the neighbours;" "the poor badly supplied; they often either beg or steal it;" "no public pumps or fountains; many of the poor beg or steal it." In other instances, it is stated that the poor must pay dearly for their supply of water both in time and money, as in the town of Gateshead, where the statement runs thus: "Sold to the poor at a farthing for four gallons; others from springs, where they frequently have to wait one to three hours." Under this comprehensive, but somewhat inexact title of poor, are comprised, not merely the very dregs of the population—paupers, beggars, and vagrants, and the class just above them,—but the families of the industrious labourer and artizan, to whom, in an especial manner, time is money. And yet we find this important class stinted in one of the first necessaries of life, obliged to purchase it by what is to them a large outlay of both; and, to our shame be it spoken, to beg or steal it; or, what is nearly as bad, to quarrel and fight for it.

Such being the state of the water-supply in the fifty towns specially examined, it is but natural to infer that in the smaller towns and larger villages, similar evils would be found to exist. I need not tell you that the water-supply of the Metropolis is notoriously bad and insufficient; that much of it is taken from the Thames, into which so large a proportion of the offensive drainage of the city flows; that the other purer sources of supply suffer considerable pollution; that the system of supply is such as to add to the impurity, while it is exposed to other very serious objections; that the great duty of furnishing an adequate supply of this first necessary of life is entrusted to commercial companies who are, of course, governed by the very loose law of supply and demand, subject to no sort of municipal control, and armed with powers which, when exercised, must be put in force to the injury of the poor. Under such a system, who can be surprised to hear that in Lambeth alone, between 7000 and 8000 houses are without any supply of water, and that in the district supplied by the New River, between 60,000 and 70,000 houses are in a similar state of destitution? Every new inquiry has only served to strengthen our convictions as to the extent of this evil. The Report of Mr. Simon, the able officer of health in the city of London, is but the melancholy counterpart of that of the authorities of the extensive parish of Marylebone. From every part of the metropolis we have the same disgraceful history of crowds of poor wretches "fighting for water," round dribbling stand-cocks, pouring out a slender stream of water for two or three hours on alternate days: of hundreds of squalid lanes and courts without any supply of water whatever; of others driven to resort to wells polluted with the water of drains; of hundreds of poor people forced to beg a scanty supply from door to door, or to steal it from others scarcely better off than themselves; of other hundreds who, to use the words of the city medical officer, "actually lacked water for the ordinary purposes of ablution."

In the course of one or two house-to-house inspections which I have myself made, I have had opportunities of convincing myself that in the statements I have just put forward there is, in all probability, no exaggeration.

I have now said enough to convince you, that, in the Metropolis and the principal towns of England, the supply of water to the houses inhabited by the poorer classes is such, as to warrant the comparison which I am instituting between the prisons of the last century and the houses of this. So much for the supply of water.

Next as to air and light. You cannot have forgotten Howard's description of the offensive state of the air in the gaols,—how it tainted his clothes and the very leaves of his memorandum-book. On this point, Dr. Southwood Smith shall furnish us with an exact parallel. He says (and every medical man and clergyman who is in the habit of visiting the poor will be able to bear him out in his statement), "It sometimes happens to me, in my visits to them" (the poor) "as Physician to the Eastern Dispensary, that I am unable to stay in the room even to write a prescription; for such is the offensive and unwholesome state of the air, that I cannot breathe it even for that short time." So also Mr. Toynbee. He describes the rooms of the poor as "extremely close—so close that, for self-protection, I am obliged to have the windows open during the visit." And I can myself bear testimony to the very offensive condition, not only of the houses of the poor, but of many of the shops and workshops in which they serve or labour.

The supply of light is of course very difficult to separate from that of air, the window being the principal inlet of both. You will recollect that, in reference to this subject, I quoted a passage from Howard to the effect, that "one cause why the rooms in some prisons are so close, is, perhaps, the Window-tax, which the gaolers have to pay; this tempts them to stop the windows, and stifle their prisoners." For *gaolers* read *landlords*, and again our parallel is complete. Thus Mr. Hickson tells the Health of Towns' Commissioners, that "if they would examine personally the houses in which

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the poor live, in the close courts and alleys of the Metropolis, they would be surprised at the number of dark stair-cases and filthy holes, which, although on upper floors, are quite as ill-ventilated and unfavourable to health as the cellars of Liverpool." To the same effect is a recent Report on the Sanitary State of the Parish of Marylebone, which contains several indignant passages levelled against a tax which, in the language of Mr. Hickson, operates "as a premium upon defective construction." I am happy to be able to speak of this tax as in all probability doomed to a speedy repeal.

Howard, you may remember, speaks of the "close rooms, cells, and subterranean dungeons" of 1774. Now, I need not tell you that these are to be found faithfully reproduced in most of our large towns. The 2000 courts, with 11,000 houses and 56,000 inhabitants, and the 6000 cellars with their population of 20,000, will serve to remind us of the large scale on which the prisons of 1774 were reproduced in the Liverpool of 1844; the Liverpool of that day (for it has since undergone material improvement under the operation of a Sanitary Act and the superintendence of a health officer) itself being merely the caricature of the Metropolis and other large cities.

I now come to the state of the prisons of the last century, and the houses of the present day, in the important matter of drainage, including the provision made for the reception and discharge of offensive refuse matters.

Howard tells us that "some gaols have no sewers." Let us turn, in search of a parallel, to the Report of the Health of Towns' Commission, to which I have already referred. Speaking of the drainage of the fifty towns from which special reports were received, the Commissioners tell us that in scarcely one place could the drainage or sewerage be pronounced to be complete and good, while in seven it was indifferent, and in forty-two decidedly bad, as regards the districts inhabited by the poorer classes, that is to say, by the great mass of the population.

The Report adds, that the investigations within the several towns of the arrangements for house as connected with street cleansing (that is to say, the provision of what Howard terms "sewers,") present nearly the same results. The condition of things in the Metropolis is not a whit better than in our principal provincial towns. The Report of the parish of Marylebone, to which I have already referred, informs us, for instance, that no less than 280 streets and places in that wealthy and fashionable quarter were, (at the time the Report was issued, namely, in 1848, now about three years since) altogether without sewers. As to the more immediate provision for the reception of offensive refuse matter, the worst class of houses in 1851 is not better supplied with these means of decency than the worst prisons in 1774. In support of this assertion, I will quote a few facts from a late Report from the Chief Comsioner of police for the City of London to the City Commissioners of Sewers, dated Oct. 22, 1849. The police examined and reported on upwards of 15,000 houses. Of these, "2132 required whitewashing or other cleansing, on account of general dirtiness; 2524 had offensive smells from bad drainage and other causes; 720 had filth or rubbish in the cellar; 106 had stagnant water on the premises; 51 were found offensive, from the deficiency of dust-bins, and the necessary accommodation for refuse; 446 were found in an offensive and unhealthy state, from bad or deficient drainage; 154 were found in much need of water, or used water deteriorated by improper receptacles; 109 required to have their dust-bins immediately cleared; 148 presented nuisances of various descriptions unfavourable to health, not previously described; 1120 had privies and water-closets in a very offensive state; 4608 had their privies in the cellars; 4389 had their privies (not water-closets, be it recollected) in passages and other parts of the houses; 152 privies were used in common by more than one house. (Other reports from the City show a deficiency of these essential conveniences perfectly astonishing.) 223 cesspools were found full of soil; 30 had burst or overflowed; 21 cellars were used as cesspools; 40 drains were found choked with soil. This is but a part of the whole congregation of nuisances discovered in and about the habitations of the poorer classes in the City of London in the year of the cholera, 1849—in that very City of London which had been for years previously boasting of its unrivalled sanitary condition. On this point too,—the close resemblance of the dwellings of the poorer classes in 1850, to the prisons of 1774, in all those matters which bear most directly on decency as well as health,—I can speak from personal observation and experience.

Before I quit this part of my subject, I may remind you of what Howard points out as a very grievous defect in the prisons of his time—I mean the want of courts and open spaces for ventilation. This want is felt in our own times in those houses, so numerous in all our large towns, which are built back to back. The inevitable consequence of this vicious arrangement is, that one single privy must often serve for several houses, or, what is almost worse, the privies must be placed under the staircases, or in the cellars, so as to become most disgusting nuisances, and to give occasion to most unseemly quarrels and bickerings.

We may form some idea of the extent to which this faulty construction of houses is carried in some of our towns, by the case of Nottingham, in which "upwards of 7000 houses (out of 11,000 in all) are erected back to back, and side to side, and are, of course, by this injurious arrangement, deprived of the means of adequate ventilation and decent privacy." The Report, from which I extract this passage, goes on to say, that 'the highest mortality occurs in the back to back houses of enclosed courts, situated within a few yards of the open and healthy neighbourhoods, to the lowness of the mortality, of which it forms a striking contrast." In this high mortality of back to back houses, it is needless to tell you that typhus fever plays a very important part.

The next point mentioned by Howard is the want of proper beds and bedding in the prisons of his day. In reference to this want, as well as to the scanty supply of food, and the insufficient medical attendance, of which the poor debtors had to complain, it will suffice to remark, that the extreme poverty, which is the unhappy lot of so large a fraction of our population, must, of necessity, entail all these privations; and every one who has any personal experience of the poor in town or country can testify that they do exist.

The last of the physical evils which Howard points out as existing in our prisons in his time, and tending to the production of the gaol fever, is overcrowding. This evil, too, exists to a very great extent in the houses of the poorer class, both in town and country, at the present day; and there is every reason to believe that in most places it is greatly on the increase. The extensive prevalence of overcrowding, both in town and country, and the disastrous consequences which result from it, both in a physical and in a moral point of view, point it out as a subject especially deserving of your attention. I shall, therefore, enter into it somewhat minutely, treating it first as a cause of disease in general, and secondly as a special cause of fever. In taking this larger view of the subject, I shall not lose sight of the parallel between typhus fever, as occasioned by overcrowding of modern buildings, and gaol-fever, as caused by the overcrowding of prisons.

In the whole science of public health there is no principle better established, no fact better ascertained, than the connexion of disease and overcrowding. Density of population and a high mortality, are almost convertible terms; indeed, Mr. Farr goes so far as to assert, that if in any large city or district, such as the metropolis, the density of population and the mortality of one locality is given, and the density of another, the mortality of that other may be calculated to within a small fraction of the truth. In this statement there is, perhaps, some exaggeration; but, as a broad general principle, it is undoubtedly correct.

Let us first compare the dense population of our town districts with the comparatively thin and scattered population of the country, by the aid of one of Mr. Farr's Tables. He shows, that if we compare one million of persons living in the country, at the rate of about 200 to the square mile; with one million of persons living in towns, at the rate of about 5000 to the square mile, we have in the first case an annual mortality of about 19,000; in the second case, of about 27,000; in the one case a mortality of 1 in 52, in the other case of 1 in 37, and an excess of mortality in the town districts of nearly 8000. Typhus fever, I need scarcely tell you, has its share in bringing about this great disparity.

Mr. Farr has also furnished us with a similar comparison between several town districts having different densities of population.

In one of the Reports of the Registrar-General, the several districts of the Metropolis are divided into three groups of ten districts each, under the titles of the healthiest, the medium, and the unhealthiest districts.

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The ten healthiest districts, with an allowance of 202 square yards of space to each person, have a mortality of 1 in 49.

The ten medium districts, with about half the space, namely, 102 square yards, lose 1 in 41.

While the ten unhealthiest, with the meagre allowance of 32 square yards to each inhabitant, have a mortality of 1 in 36.

You have also before you some tables and plans which illustrate very forcibly the excessive mortality of towns as compared with the country; and of the most filthy and crowded town of Liverpool as compared with the metropolis. I have also prepared for you some tabular proofs and illustrations of the part which typhus fever plays in bringing about this excessive mortality of town populations, and of the excessive prevalence of this destructive disease among the labouring section of the population.

That fever bears its part in swelling the mortality of the more crowded districts is proved by a large assortment of facts, of which it will suffice to quote the following.—"In the year 1844, there was a portion of the town of Liverpool in which the density of the population was nearly three times as great as the maximum density existing in the Metropolis; and "in one street of this district, the most crowded of all, one out of every ten of the inhabitants was annually attacked with fever," and "there was one pent-up court in Liverpool, the most crowded of all, in which nearly one-half of the inhabitants were affected with fever in one year." I may add that, in a personal examination of a number of Irish bricklayers' labourers—(the Irish, I need scarcely tell you, are notorious for their love of crowding and herding together)—I found that at least one in every three of them had, at one time or other of their lives, suffered from an attack of typhus fever.

These few facts are sufficient to establish the baneful influence on health and life, of crowding a great number of habitations into a narrow space; and, as it may be very safely inferred that the houses so crowded together are of that inferior class which are known to yield the least accomodation to their inhabitants, the same facts may be assumed to establish the injurious consequences of overcrowding within doors. But fortunately there is no necessity for resorting to inferences in this matter. The connexion of overcrowding of dwellings with disease, and especially with fever, rests on the secure basis of facts, some of which I shall detail to you in my next lecture. My object in this lecture has been fully attained if I have succeeded in convincing you of the strict analogy existing between the fever which Howard was made the instrument of banishing from our prisons, and the fever which it must be our aim, by the simple and effectual means placed at our disposal, to banish from the homes of our labourers and artizans. It must be a great encouragement to you, who, like Howard, have not the advantage of a regular medical education, to feel that the weapons with which you are to combat this loathsome enemy of man's life are ready to your hand. They are, you need not now to be informed, a due supply of the first great necessaries of life, air, light, and water. This lecture is a somewhat shorter one than the last, but it will be long enough if it has taught you this one truth.

CLINICAL LECTURES ON SURGERY,

AT

KING'S COLLEGE HOSPITAL,

BY WM. FERGUSSON, ESQ., F.R.S.

ON AMPUTATION OF THE FOOT AT THE ANKLE-JOINT.

GENTLEMEN,—When we last met, I promised that I would take an early opportunity of calling your attention to, and making some observations upon the operation of amputation of the foot at the ankle-joint. We have a very good opportunity of considering this subject, as there is a patient now in one of the wards who has only very lately been subjected to this proceeding; and I shall take this opportunity of making some remarks, which I hope may be serviceable to you, and at the same time be useful to the Profession. This operation is somewhat novel, and, in my opinion, not yet sufficiently known or appreciated by various surgeons in this country; but before proceeding further, I will briefly give an outline of the case now under our care.

The patient, Francis C—, aged 43, a hosier, a native of Essex, but always having his abode in London, was admitted into the hospital Feb. 28, with extensive disease of the right tarsus. Upwards of seven years ago he was under the care of Mr. Fergusson as a private patient, with disease of the os calcis of the same foot. An operation was performed by removing the carious portion, a great part of the inside of the bone being scooped out. Nine months after this he was well, and able to attend to his business, jump over his counter when he chose, and stand from twelve to fourteen hours daily without feeling any inconvenience. About the middle of last summer, the symptoms of the present disease first commenced; the foot swelled on any exertion, and at times became very painful. Two abscesses formed. The pain and swelling still further increased; other openings came in front of the ankle joint, and on the outside. Two of the latter are still open, and discharging a large quantity of pus; the whole tarsus is very much swollen and inflamed; the patient suffers very much from pain, and cannot get any rest at night, and he is in a very nervous and anxious state. Mr. Fergusson had made a thorough examination of the foot previous to the patient's entry into the hospital, and having satisfied himself of the existence of incurable disease of the tarsus, sent him in that he might undergo amputation at the ankle-joint.

March 1.—The operation was performed. There was found to be extensive disease of the tarsus, especially of the joint between the os calcis and astragalus; the substance of the os calcis was, however, perfectly healthy, the former disease having all been removed, and the cavity which had been made at the operation being filled up by a tough fibrous substance. The patient went on very well; a triangular portion of the lower flap, at the seat of the cicatrix of the old operation, has sloughed; but the wound is healing well, and the patient's health is very much improved.

Now you have all seen how this case has gone on since the operation; everything is turning out very satisfactorily, and we must look upon the case as one of double interest for two reasons; in the first place, it illustrates well the advantages and disadvantages of a somewhat novel mode of procedure; and, on the other hand, an opportunity is here given to us of seeing the result of an operation which was performed upon the os calcis many years ago, and of ascertaining the precise changes which had taken place for the repair of the part which had been diseased, and had been removed for the cure of that disease. It is not often that we have such an opportunity of viewing the condition of the bones any length of time after these partial operations; patients who submit to them go away when well to their various destinations, and, unless something else happen to them, we see nothing more, and, therefore, can but rarely get such opportunities as the present. I have very frequently referred to this patient when lecturing upon operations on the os calcis, as a capital instance of removing a considerable amount of disease from that bone, and at the same time preserving for the man a serviceable foot. You will see that I have mentioned the case in the last edition of my own work on "Practical Surgery." Now, there cannot be a doubt that there had been a perfect cure in this instance; that it had so remained for near seven years; and that the foot had become attacked with scrofulous disease, independent of anything connected with the seat of the old malady. Inflammation attacked the joints of the tarsus, ran its usual course, and, as it so often does in strumous subjects, led to the irreparable mischief for which I have been compelled to sacrifice the whole of the foot, and here you see the result of this mischief, (showing the preparation,) consisting in extensive ulceration of cartilages, with great thickening of synovial membrane, similar to the worst form of white swelling as we see it in the knee-joint. But, as I have told you, the principal point of interest in this morbid specimen is the appearance of the os calcis; here I have sawn it through its middle, and you perceive that the body of the bone is healthy and a great portion of its extent natural in appearance; but at the back part, opposite to where the tendo achillis is inserted, instead of bony tissue, there is a quantity of firm, tough fibro-cartilaginous material, filling up the cavity from which the disease on the occasion before referred to had been scooped out. This cavity is smaller than I could have expected it to be, for I recollect that nearly the whole of the interior of the bone was removed; at least, it appeared to me so at the time. If such

was the case, the greater portion of this interior of the os calcis, which is, as you see, perfectly normal bony tissue, must have been re-produced.

So far, then, for the morbid appearances of the part, and the condition of the os calcis. I shall now take this opportunity of making some observations on the operation which you saw me perform, and which is now generally termed Mr. Syme's operation, as it has been prominently brought before the notice of surgeons by that gentleman. I recollect, that when this proceeding was first introduced and talked of, some surgeons were in the habit of saying, that there was no novelty about amputation at the ankle-joint; but you must remember, that there is considerable difference between *this* operation and that which may have been termed amputation *at* the ankle. We should make a distinction between these localities and the operations at these places, in the same manner as we do respecting amputations at the hip and those at the hip-joint itself. Neither was there any novelty as regards the mere removal of the foot at the ankle-joint, for this operation had been recommended and practised long before Mr. Syme spoke of it; but the feature of novelty and advantage in his operation was, that he had so planned his incisions, that he was enabled to form a flap which covered the ends of the bones in such a manner as had not been done before. If you will take the trouble to read the history of this operation, you will find that it had been frequently performed before, but never in such a manner as recommended by Mr. Syme. That gentleman fancied that the foot might be taken away at the joint, and that, by leaving the thick integument of the heel, a firm, elastic cushion might be formed for a stump, and a good covering for the ends of the tibia and fibula. Now, any one looking at this proposal, might have been disposed to cavil at the project, on taking into consideration the irregular shape of the parts and of the flaps formed by the operation; and it might have been suspected that an operation of this nature would never appear different from one of a very awkward aspect. And, moreover, another thing which might have somewhat prejudiced one against this proceeding, was the description of those who had witnessed it, that it was an unseemly and protracted proceeding. Notwithstanding the difficult and protracted nature of the operation, and the other objections which may have been at first thrown out against it, it has been found by experience that it is a most admirable addition to surgery, and to Mr. Syme most certainly is the credit due of having introduced it to the Profession in its present form.

I had an opportunity of attempting this operation upon the living body, upwards of four years ago; and since that period I have, in public and in private practice, performed it on eight different occasions, and I have much satisfaction in giving my testimony to its being a great addition to those means which we use for the preservation of life and limb. It may with truth be said to be peculiarly characteristic of modern operative surgery, that we avoid to the utmost of our power all great mutilations,—that, instead of amputating a considerable part of the body for a diseased joint, we are content, and indeed find ourselves able to cure the patient, by cutting out the diseased parts, and leaving him a more or less useful limb. Although this view regarding the objects of operative surgery cannot be said to be novel, it must be admitted that conservative surgery is more in the ascendancy than ever, and it is a very good step in advance. I remember the time when, for disease of the ankle-joint only, the surgeon amputated the greater part of the leg, cutting the limb off just below the knee-joint; and I have myself often removed the leg for disease of the tarsus. Now, I hold it to be a sound maxim to preserve for the patient, while removing the diseased part, as much of the sound body as we possibly can, and the less of it we take away the more creditable is it for surgery. Again, I believe it to be a good and safe principle in surgery, that we should operate as far as possible from the trunk, and that by so doing we are putting our patient to less hazard; the shock of the operation will be much less; and this rule especially obtains with reference to amputations on the lower extremity. I believe it to be agreed among all surgeons, that the danger of the proceeding is lessened in proportion with the distance from the trunk. I speak, of course, in reference to the effects of the operative proceeding itself, and not to those accidental circumstances which may arise after any operation whatever.

For these reasons, then, I consider that amputation at the ankle-joint should always, when possible and proper, be put in force, instead of the old proceeding of removing a great part of a sound limb.

I have been particular in bringing this operation before your notice, because I think it creditable to surgery; and I am sure that if you should, in the course of your future practice, find it necessary to perform it, you will find it answer admirably, and, moreover, bring credit upon yourselves. But, gentlemen, although of late so much has been spoken, and so much has been written, respecting the advantages of this proceeding, I fear that it is by no means so well known and understood as it ought to be; certainly, if known, it is not practised so frequently as it should be. We see and hear of surgeons who still keep to the old method of amputating the leg for simple disease of the foot or ankle-joint.

Now, to show that this operation is probably not performed so often as it might be by surgeons in this metropolis, I may state, that Mr. Syme, in his comparatively limited sphere of observation,—that is to say, as one of the surgeons to the Royal Infirmary in Edinburgh, a city containing about 200,000 inhabitants,—has performed the operation more frequently than all the surgeons in London put together. I have had eight cases myself; my friend, Mr. Busk, of the Dreadnought, has had the same number, I believe; and beyond these, I do not think that there have been half-a-dozen instances of this operation altogether. This, as you see, gives a very small proportion to what has been done in Edinburgh; and it would appear from this, that either there must be a great many more cases in Scotland requiring this operation, or there must be much less of this sort of surgery here in London. I place no importance on the insinuation, that the operation may occasionally be done in the north in instances where there is no absolute necessity for such a proceeding. The same practice has been resorted to by other surgeons in Edinburgh, as well as in Glasgow; and I have such a high opinion of the surgery north of the Tweed, both in the Royal Infirmary of Edinburgh and elsewhere, that I should consider myself an unworthy disciple, were I not to express my humble opinion in favour of the school from which I have myself derived so many advantages. From what I have observed, I should say, that surgeons here are not sufficiently impressed with the utility and superiority of this proceeding; and I am convinced, that amputation has been done, frequently in the leg for diseases of the foot, when amputation at the ankle-joint might have been substituted with ease, and would have sufficed for the thorough removal of the disease.

What, then, are the advantages of this operation, you will ask, to counterbalance those disadvantages which have been urged against the proceeding, namely, its difficulty, its protracted nature, and also the liability there is to the lapse of a long period before the stump perfectly heals? To this I would bring two most cogent answers. In the first place, by adopting this operation instead of amputating in the leg, we preserve a great portion of the limb which is in a sound state, and nevertheless gain the same object, namely, the removal of the disease and the restoration of the patient to health. Secondly, I have no hesitation in saying, that the stump is the best that can be made in the lower extremity. You must bear in mind that I am only here alluding to those cases in which amputation of the foot is imperatively demanded.

Whilst making these observations upon the superiority of this operation, it would not be right in me to lead you to suppose that it is invariably successful, or that it is not sometimes attended by fatal results. Of the eight patients I have operated upon, two died after it; in one of them death followed directly from the proceeding in a few days, as it would ensue after any other amputation; great irritation and inflammation ensued, and quickly carried the patient off. In the second instance, it would not be fair to put the issue to the operation itself, as the fatal termination did not happen until several weeks after, and it was due to disease of the lungs, which had rapidly supervened after the foot had been removed. In some of my cases which have recovered, there have remained for some time those chronic sores which one frequently sees in a stump, or after excision of a joint for carious bone; but I lay no stress upon this matter, for it often happens that, when the skin has been diseased, even after the removal of the carious bone, sinuses will take some time in healing up: and I would beg of you to remember, that the fact of there being ulceration of the soft parts which are to form the flap, is no valid objection either

to the excision of bone or to this operation. I am fully aware that surgeons refuse to do this amputation at the ankle when the soft parts are swollen and ulcerated; and I believe that this is one reason why it has been so little adopted, for there is nearly always a good deal of disease of the integuments in a case of caries of the ankle-joint or tarsus. But it is a very erroneous notion to believe, that this will act as any objection to the proceeding,—the disease in the soft parts is entirely produced and kept up by the irritation of the carious bone;—take the latter away, and the soft parts will, sooner or later, regain their natural condition. You recollect the last case in which I performed excision of the elbow-joint; there was most extensive disease of the soft parts around, through which it was necessary to make the incisions in the operation; nevertheless, after the carious ends of the bones had been removed, the parts resumed a most healthy condition; and the swollen condition, as well as the improvement afterwards, were so remarkable, that I had casts of the arm taken both before and after the operation. It has been the same with this last case of amputation at the ankle-joint: the disease in the soft parts was very great; but look, now, at the stump, and you will see how healthy the skin appears. Bear this point in mind,—it is of the greatest importance; it is a principle that you cannot too firmly press upon your minds, that disease of the soft parts around a carious joint is caused and kept up by the condition of the bone; and that, when this latter is removed, the former will resume a sufficiently healthy state to make a good covering. I particularly draw your attention to this point, as I feel certain it is not sufficiently acknowledged, or at least attended to.

Before concluding, I will just make an observation on one other point. You have seen that a slough took place in the middle of the lower flap in this case. Now, sloughing has not unfrequently ensued in the lower flap after this proceeding, but it has usually attacked the anterior edge of it, not the centre, as in this case. But you will readily understand how this was the case; the cicatrix of the wound made in the former operation was seated here, and of course the circulation was less healthy at this point; consequently, some sloughing took place there. Sloughing of the lower flap has often been observed; and, in order to obviate this, Mr. Syme has recommended a shorter flap than he at first made; and I have sometimes made even a shorter one than recommended by that gentleman. Here (showing a cast) is an instance where I carried the incision just over the posterior edge of the lower surface of the os calcis: a capital stump was made, and no sloughing occurred. It is desirable to make the flap no longer than is absolutely necessary. I have now drawn your attention to most of the points connected with this operation, which I strongly recommend to your notice; for by it you can remove effectually a serious disease from your patient without sacrificing a considerable portion of a limb which is in a sound state, and which may prove very serviceable to him afterwards.

ORIGINAL COMMUNICATIONS.

REMARKS
ON THE
ETIOLOGY OF PHTHISIS.

By EDWARD SMITH, M.D., LL.B., B.A.
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PAPER III.

INFLUENCE OF AGE.

M. Louis, in the last edition of his admirable work on "Phthisis," gives no definite opinion as to the influence which age exerts over the induction of phthisis, except such an one as may be gathered from the following passages, which open and close his section upon this subject, and which appear to go far towards nullifying each other:—

"L'âge est incontestablement une des circonstances qui ont le plus d'importance sur le développement des tubercules." And again: "Mais en considérant d'une manière générale l'ensemble des tubercules avant et après quinze ans, on trouve que leur proportion diffère moins qu'on ne l'aurait cru au premier abord, puisque d'apres les faits recueilis par moi à l'Hôpital de la Charité." The only arguments which he adduces, are the statements made by MM. Billard, Baron, Guyot, Lombard, and Papavoine, as to the frequency with which tubercles are met with in the bodies of children, from the period of uterine existence to the 14th year, or later, after birth.

These statements cannot prove the influence of age in the production of phthisis, for the following reasons.—1st. The seat of tubercular deposit is not stated by M. Louis, and in many instances included in the returns, the lungs were healthy, as testified by the writers of the monographs quoted by him. 2nd. The cases are not indicated in which the lungs were the seat of tubercle. 3rd. Individuals die at all periods of life, having tubercular matter deposited in the lungs, which had never been evidenced during life, or, if its existence had been suspected, it was not the cause of death.

It is stated by M. Papavoine, in his extended and excellent article on "Tubercules," in the *Journal des Progres des Sciences Médicales*, 1830, page 103, that the tubercular disease in all organs was the cause of death in only "chez plus d'un tiers des sujets." The statements adduced may suffice to show the liability of children, at various ages, to the deposition of tubercle; but they do not prove the influence which age exerts over the production or developement of phthisis *per se*.

Sir James Clarke quotes the authors just named, and also MM. Chaussier, Oehler, Husson, Velpeau, Breschet, Guizot, Guersant, Andral, and also Dr. Alison, to show the prevalence of tubercles in early life, and without inconsistency, since this section of his work is entitled "Prevalence and Site of Tubercles at the Different Periods of Life;" but the statements there advanced have no sufficient reference to the subject now occupying our attention. Sir James then shows the mortality from consumption at various ages, from fifteen years and upwards in eight cities, and the proportion of 1000 cases, which fell in quinquennial and decennial periods, and thence deduces the opinion, that "the greatest number of deaths occur between the age of 20 and 30; the next in proportion, between 30 and 40; the next, between 40 and 50; the succeeding grade of mortality being sometimes placed between 15 and 20; at other times between 50 and 60, or even above 60." It is to be remarked that this statement only shows the number of cases which occurred at the various ages in the cities referred to; it does not prove the liability of each period of life. M. Andral believes that females are more exposed to phthisis before they have attained to the age of 20 years, and males between the ages of 21 and 28.

The medical officers of the Hospital for Consumption make the following statements in reference to this subject:—

1st. The number of cases below 5 years of age are very few; they gradually rise up to the period of 35 years of age, and as gradually fall until they become as few between the ages of 65 and 75 as they are under 5 years of age.

2nd. The liability to consumption is greatest in both sexes from 25 to 35 years of age; and that, under 25 years of age, the liability is 10 per cent. greater in females than in males; while over 35, the liability is 12 per cent. greater in males than in females.

3rd. The disease is slightly less frequent in males before the age of 25 than it is after 35; whereas, in females, the liability to the disease is considerably greater before the age of 25 than after 35.

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These statements are based upon the number of cases at various periods of life which have been observed among the patients attending that excellent Charity, and the proportion which the numbers that occurred at given ages bore to the total number. It is not presumed that all these cases terminated fatally; neither is it stated if the same individual had been entered on the list more than once, as might have been the case if, after some improvement, he had had a relapse, and had again applied for assistance. Thus, however correct the deductions may be, they do not carry the conviction of a proof of the liability of certain periods of life; and the writers, having appreciated this fact, very properly append, in a foot-note, a table computed from the Registrar-General's Returns for the Metropolitan district, which gives the true liability sought.

Dr. Craigie, in his "Practice of Physic," page 999, states that "the greater number of deaths from consumption takes place between 20 and 30; the next between 30 and 40; and the next between 40 and 50."

On turning to the reports of the Registrar-General, we do not find any table indicating the number of cases recorded in all England at various ages; and therefore we must content ourselves by stating the results of the investigation into the mortality of 1847 only. The following Table shows the number of deaths which are recorded in England and Wales at each of 21 periods of life in both sexes, with the proportionate mortality of each age to the population in 1841.

Table 18.

The Total Mortality from Phthisis in England and Wales in 1847, *and its Ratio to the Population in* 1841 *at various Periods of Life.*

Age.	Males.		Females.	
	Mortality.	Ratio.	Mortality.	Ratio.
		1 in		1 in
0	1253	167	1052	187
4	2610	394	2557	413
5	782	1212	873	1088
10	910	962	1352	580
15	2314	335	3160	246
20	3584	203	3924	210
25	3000	202	3709	180
30	2347	235	3953	197
35	2223	195	2543	176
40	1823	233	1875	240
45	1540	202	1424	239
50	1265	241	1076	300
55	1029	183	872	231
60	751	176	742	328
65	520	230	511	271
70	253	409	250	427
75	128	432	103	594
80	40	774	24	1770
85	9	1121	9	1536
90	2	1237	3	1343
95			1	926

The twenty-one periods of life at which the mortality occurred in males and females, are thus arranged in the order of intensity, commencing with that in which the greatest mortality was experienced.

Age.

Males.....20 25 4 30 15 35 40 45 50 0 55 10 5 60 65 70 75 80 85 90

Females...30 20 25 15 4 35 40 45 10 50 0 5 55 60 65 70 75 80 85 90 95

But this cannot be admitted as proof of the absolute liability of the population at certain ages, unless it be previously proved that the number living at each period of life has the like relation; and, as the preceding Table proves that no such relation exists, we must seek the proof from other sources.

The true ratio of mortality at various ages in the two sexes is thus exhibited—each period of life being arranged in its order of liability to phthisis.

Age.

Males..... 0 55 35 25 45 20 65 40 30 50 60 15 4 70 75 80 10 85 5 90

Females...35 25 0 30 20 55 45 40 15 65 50 60 4 70 10 75 95 5 90 85

It will be observed that in some instances the liabilities of very diverse periods of life are almost identical; and in such cases it will be more truthful to affirm that the order indicated is only a very near approach to truth, the nearest which can be obtained until the investigations of subsequent years furnish us with additional information.

This table shows that the ratio of mortality is less among females than males up to one year of age, and from 45 to 90 years of age; equal in the two sexes up to 5 years of age, and greater among females than males from that period to 45 years of age, and from 90 to 95 years of age.

It may be stated as a general observation, that the greatest number of deaths from phthisis observed in any one year occurs within the first year of existence; and subsequently, those taking place between the 15th and 35th years of age are fully 50 per cent. of the total mortality from this disease. The maximum ratio of mortality to the population is also found within the first year of life, the ratio diminishing during the subsequent years until the 10th year, when it approaches to, or merges into, the minimum ratio. From the 10th to the 15th year the ratio increases to a degree sometimes as high as that occurring within the first twelve months, and always higher than that existing after the 1st and before the 5th year, and then remains somewhat stationary until the advanced age of 65 or 70 years, at which period, or subsequently, we again find the minimum ratio of liability, or a near approach to it.

Thus, after the dangers attending upon lactation and the first months of existence have passed away, the ratio of mortality gently but progressively diminishes during the period when instinctive and physical actions control the system and until that variable point is attained, when the mind fairly begins to assume its proper intellectual functions. The mortality then gently increases until the production of the menses in females and the marks of virility in males give rise to new susceptibilities, and modes and degrees of development, mental and corporeal, when it suddenly increases, and seizes the masses with a fatality of grasp not at all or scarcely exceeded by that occurring at any other period of existence, and far exceeding that resulting from any other disease. The fatality remains somewhat stationary during the period when hopes and fears, cares, toils, exposures, the faculty of reproduction, and the marked variations in the functions of nutrition which belong to the middle periods of life, are in full exercise; and, when the system has safely passed through these multiplied dangers, and the individual, physically and mentally, has fallen into the repose of old age, the mortality from phthisis attains to its minimum of intensity. On reference to the 9th octavo Report of the Registrar-General, page 176, it will be observed that the above-mentioned ratio of intensity corresponds with that of the general mortality, until the 15th year of life, after which a marked diversity occurs. In both the mortality from phthisis and the general mortality, the maximum ratio occurs before the first year has expired, and then diminishes to the period from the 10th to the 15th year; but in the general mortality, the ratio thence gradually, not suddenly, increases, and continues to do so through the remaining years of life; whereas, in the mortality from phthisis only, the ratio greatly diminishes after the 65th or 70th year of age.

This is again evident on examining the eleven divisions of England and Wales.

On referring to the Tables showing the ratio of mortality in the eleven divisions of England, we observe that the minimum ratio, or the near approach to it, occurs from the 5th to the 15th, and most frequently from the 5th to the 10th year of age. After the 80th year of age, the ratio again approaches to the minimum, and in a few instances the mortality is even lower than that occurring from the 5th to the 10th year; but the number of cases observed at this advanced period of life is so small, that an accurate computation cannot be expected except after an investigation of the cases comprised in the returns for a series of years.

The first of the following Tables shows the ratio of mortality from phthisis, in 1847, to the population in 1841, in the eleven divisions of England and Wales, distinguishing the cases occurring at various ages, and in the two sexes.

We have arranged, in the second Table, the twenty-one periods of life at which this mortality occurred in the two sexes, in each of the eleven divisions, in their order of intensity:—

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Table 19.

Ratio of Mortality from Phthisis in 1847 to the Population in 1841 in the Eleven Divisions of England and Wales, at the following ages.

MALES.

Age. Years.	London.	South-Eastern.	South Midland.	Eastern.	South-Western.	Western.	ENGLAND	North Midland.	North-Western.	York.	Northern.	Welsh.	Age. Years.
	1 in	1 in	1 in	1 in	1 in	1 in	1 in	1 in	1 in	1 in	1 in	1 in	
0	276	194	105	93	126	143	167	126	153	279	708	333	0
4	463	498	314	296	371	352	394	354	300	510	1015	563	4
5	1122	1417	1525	1085	1712	1169	1212	1320	731	1701	1110	1449	5
10	1210	1530	1357	1199	1460	1101	962	864	541	841	733	910	10
15	442	333	509	309	481	384	335	363	235	293	209	319	15
20	207	187	269	216	242	225	203	204	172	201	279	163	20
25	186	167	268	194	238	230	202	227	173	237	209	111	25
30	180	222	273	248	316	260	235	243	234	266	217	210	30
35	134	192	209	254	252	227	195	262	165	229	177	197	35
40	147	213	296	337	311	293	233	335	191	266	232	235	40
45	123	236	292	282	252	208	202	318	143	202	260	243	45
50	156	308	281	430	260	247	241	327	177	259	287	262	50
55	115	270	257	509	234	186	183	208	136	187	204	181	55
60	205	355	301	368	220	373	276	420	198	370	232	239	60
65	178	294	317	390	226	282	230	317	149	222	164	205	65
70	380	869	526	500	429	709	409	593	227	353	320	206	70
75	268	578	499	410	532	1331	432	923	198	570	571	211	75
80	485	1165	1477	672	536	985	774	2326	296	708	886	1400	80
85	...	349	...	...	1427	1183	1121	...	689	...	...	344	85
90	161	...	...	224	...	...	1237	...	...	...	...	...	90
95	...	...	...	...	...	...	...	...	...	...	...	...	95

FEMALES.

	1 in	1 in	1 in	1 in	1 in	1 in	1 in	1 in	1 in	1 in	1 in	1 in	1 in	
0	260	224	112	109	150	185	187	175	191	348	549	359	0	
4	440	559	312	316	403	392	413	427	284	657	796	539	4	
5	1226	1629	943	932	1516	1074	1088	1252	754	1156	1127	945	5	
10	582	683	481	479	872	704	580	555	402	506	630	637	10	
15	389	265	221	183	353	244	246	235	189	203	250	301	15	
20	295	199	184	169	251	225	210	185	186	188	201	216	20	
25	220	179	198	166	233	174	180	174	148	162	174	178	25	
30	239	198	186	194	247	206	197	162	167	166	216	203	30	
35	196	166	185	178	235	163	176	161	153	176	161	174	35	
40	256	270	241	277	309	245	240	256	175	229	240	210	40	
45	213	241	259	285	327	214	239	289	158	249	193	218	45	
50	350	366	307	301	357	368	306	327	205	250	299	274	50	
55	274	268	207	304	250	256	231	231	159	231	256	195	55	
60	391	374	394	428	359	375	328	408	186	330	287	260	60	
65	247	402	361	392	186	351	271	346	155	253	390	196	65	
70	629	733	703	732	369	1037	497	658	230	710	603	232	70	
75	875	697	748	870	414	1088	554	2197	311	636	1230	272	75	
80	1142	2643	2477	5462	1078	1656	1770	2658	1013	3350	2407	686	80	
85	1137	...	...	800	1427	1727	1536	...	...	...	...	762	85	
90	...	...	...	...	...	...	1343	...	276	...	...	257	90	
95	...	...	...	...	...	...	926	...	...	...	...	...	95	

Table 20.

MALES.—Twenty-one Periods of Life Arranged in their Order of Mortality in the Eleven Divisions of England and Wales.

FEMALES.—Twenty-one Periods of Life Arranged in their Order of Mortality in the Eleven Divisions of England and Wales.

Age.	London.	South Eastern.	South Midland.	Eastern.	South Western.	Western.	North Midland.	North Western.	York.	Northern.	Welsh.	ENGLAND. Male.	ENGLAND. Female.	London.	South Eastern.	South Midland.	Eastern.	South Western.	Western.	North Midland.	North Western.	York.	Northern.	Welsh.
55	25	0	0	0	0	0	55	55	65	25	0	35	35	35	0	0	0	0	35	30	25	25	35	35
45	10	35	25	60	55	20	45	20	35	20	55	25	15	15	20	25	65	25	35	35	30	25	25	25
35	35	55	55	65	45	55	65	45	55	55	35	0	45	30	35	20	25	0	25	65	35	45	55	55
40	0	25	20	25	20	25	0	65	20	55	25	30	30	20	30	35	35	30	0	45	20	20	65	65
50	40	20	90	55	35	30	35	25	25	65	45	20	65	0	25	15	30	20	20	55	15	30	30	30
90	30	30	30	20	25	35	20	35	30	70	20	55	40	45	55	30	55	15	55	30	55	40	40	40
65	45	50	35	45	50	65	25	50	60	30	65	45	0	15	15	40	20	45	15	40	40	15	20	20
30	55	55	45	35	30	15	50	30	40	75	40	40	55	55	40	45	40	40	40	20	45	55	45	45
25	65	40	4	50	65	50	40	40	45	40	30	15	20	40	45	50	45	55	45	15	50	60	70	70
20	50	60	15	40	40	10	60	0	15	60	50	65	50	50	50	55	50	65	50	0	65	50	90	90
60	15	4	40	30	4	4	75	15	50	45	60	50	15	30	4	4	15	50	65	60	60	65	60	60
75	85	65	60	4	60	15	70	70	70	50	15	60	80	65	65	65	60	60	60	50	0	0	75	75
0	60	75	65	70	15	60	30	60	75	15	4	4	4	4	60	60	70	4	4	70	10	70	50	50
70	4	15	75	15	70	70	15	4	0	0	70	70	10	10	10	10	4	10	10	90	75	10	15	15
15	75	70	80	75	80	10	80	75	10	85	75	10	70	75	70	70	75	70	70	4	4	4	0	0
4	70	10	70	80	10	75	4	80	80	4	80	75	75	70	75	85	10	5	5	75	70	5	4	4
80	80	5	80	85	5	5	10	10	4	10	10	95	85	5	5	75	80	75	75	10	5	75	10	10
5	5	80	5	10	85	80	85	5	5	80	85	5	80	80	80	80	5	85	80	80	5	80	80	80
10	10	...	10	5	75	...	5	...	...	5	90	5	...	...	...	...	...	...	...	...	...	...	...	85
	...	...	...	...	...	...	...	...	...	...	...	90	85	...	...	...	...	...	...	...	...	...	...	5
	...	...	...	...	...	...	...	...	...	...	...	...	80	...	...	...	...	...	...	...	...	...	...	...

The following Table is an abstract of the preceding, and exhibits the order of the intensity of the ratio of mortality, arranged in a series of twenty places. The proportion of the eleven divisions, in which the mortality at various ages held the same order, is also indicated. Thus, the figure 1 in the first horizontal row of figures indicates the highest rate of mortality, and the perpendicular row of figures underneath it shows that the ratio was greatest under age 1, in five out of eleven divisions; under age 30, in two out of eleven divisions; under age 60, in three out of eleven divisions; and under age 70, in one of the eleven divisions of England and Wales.

Table 21.

MALES.

Order of the Ratio of Mortality.

Age.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0	5	...	...	2	...	...	...	...	...	1	...	...	1	2	...	...	...	...	...	...
4	...	...	...	...	...	...	...	...	1	...	3	1	...	2	...	3	1	...	...	...
5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	5	3	...
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	2	3	1	3	...
15	...	...	...	...	...	...	...	...	...	2	2	1	2	3	1	...	...	...	...	...
20	...	4	...	3	1	2	...	...	...	1	...	...	...	...	...	...	...	...	...	...
25	2	1	...	3	2	1	1	...	1	...	...	...	...	...	...	...	...	...	...	...
30	...	...	...	...	1	4	1	3	...	...	1	...	1	...	...	...	...	...	...	...
35	...	2	2	1	2	2	...	1	...	...	...	...	...	...	...	...	...	...	...	...
40	...	...	...	1	1	...	...	1	4	3	1	...	...	...	...	...	...	...	...	...
45	...	2	2	...	...	...	2	3	1	...	1	...	...	...	...	...	...	...	...	...
50	...	...	...	...	1	...	3	1	2	1	1	1	...	...	1	...	...	...	...	...
55	3	1	5	...	1	...	1	1	...	...	...	...	...	...	...	1	...	...	...	...
60	...	1	...	...	...	...	1	...	...	3	1	2	3	...	...	...	...	...	...	...
65	1	...	2	1	1	...	2	...	2	...	...	1	1	...	...	...	...	...	...	...
70	...	...	...	...	...	1	...	...	...	...	...	3	1	3	1	2	...	...	...	...
75	...	...	...	...	...	...	...	1	...	...	1	1	2	...	3	1	...	...	1	...
80	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	3	3	3	...	...
85	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	1	2	...	...
90	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...

FEMALES.

Age.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
0	3	...	1	1	1	...	1	...	...	1	...	2	...	...	1	...	...	...	...	...
4	...	...	...	...	...	1	...	...	...	...	2	...	4	1	3	1	...	...	...	...
5	...	...	...	...	...	1	...	...	...	...	...	...	...	...	3	3	2	2	1	...
10	...	...	...	...	...	...	...	...	...	...	...	1	7	...	1	2	...	...	...	...
15	...	...	...	...	2	1	4	...	1	...	2	...	...	1	...	...	...	...	...	...
20	...	1	1	3	2	...	2	1	1	...	...	...	...	...	...	...	...	...	...	...
25	2	5	3	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30	1	1	1	3	3	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...
35	5	2	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
40	...	...	...	...	...	3	3	4	1	...	...	...	...	...	...	...	...	...	...	...
45	...	1	1	1	...	1	1	3	3	...	...	...	...	...	...	...	...	...	...	...
50	...	...	...	...	...	...	...	...	2	6	1	1	1	...	...	...	...	...	...	...
55	...	...	1	...	1	4	...	3	1	1	...	...	...	...	...	...	...	...	...	...
60	...	...	...	...	...	...	...	...	1	...	4	4	2	...	...	...	...	...	...	...
65	...	1	1	1	1	...	...	...	...	2	2	3	...	...	...	...	...	...	...	...
70	...	...	...	...	...	...	...	...	1	...	...	...	3	...	5	2	...	...	...	...
75	...	...	...	...	...	...	...	...	...	...	...	1	...	1	2	3	4	...	...	...
80	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	8	2	...	...
85	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	1	1	2	...
90	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...

The greatest variation from the indications afforded by the Table for all England, refers to the period under age 1, when in certain divisions the ratio is far greater, and in others far less, than that already mentioned. The following Table shows the divisions arranged according to their ratio of mortality among males at this period of life :—

Table 22.

Order.	Divisions.	Ratio of Mortality under 1 year of Age, to the Population in 1841. MALES.	FEMALES.
		1 in	1 in
1	Eastern	93	109
2	South Midland...	105	112
3	North Midland...	126	175
4	South Western...	136	156
5	West Midland	143	185
6	North Western	159	191
	ENGLAND	167	187
7	South Eastern	194	224
8	London	276	260
9	York	279	348
10	Welch	333	359
11	Northern	708	549

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It will be observed that the relative ratios in the two sexes are not greatly dissimilar, and that the absolute mortality is higher in males than in females. It is extremely difficult to assign any cause for the excessive mortality which is observed at this period of life in the Eastern Division, as well as for the lessened mortality which occurs in the Northern Division. There are no large manufacturing towns in either division, but both are composed rather of agricultural districts; and this remark is also applicable to the South Midland Division, which also has a high rate of mortality. The ratio in the Eastern Division is fully 320 per cent. above that for all ages, whilst the Northern exhibits only about 40 per cent. of that ratio. The two extremes are so widely apart that we cannot but infer the existence of some very important cause. This cause does not appear to have a necessary reference to occupation, nor exclusively at least to rigour of climate; for the least ratio of mortality is observed in the highest latitudes, except in Wales, and there the mountainous character of the country assimilates the climate more to the Northern than to the Southern portion of the island. It may be that the inhabitants of those districts having an excessive ratio of mortality are unusually poor, and therefore are ill fed and clad, and liable to injurious exposure, by which evils the phthisical degeneration may be originated or developed; but we have no sufficient proof of the general existence of such a state of things. This excessive mortality gives no mean importance to the statement now presented; yet we are not disposed to regard it so seriously as we might be were we assured that cases of tubercular phthisis alone were included in these returns. On examining the returns for the London division, I frequently met with that of "decline" in reference to these cases, a word which, when used by medical men even, by no means always implied tuberculous disease of the lungs, but rather a state of wasting resulting from many and often undetermined diseases.

Of the forty-two counties several present a marked excessive ratio of mortality at this period of life.

Table 23.

Counties.	Ratio of Mortality under 1 year of Age, to the Population in 1841.	
	Males.	Females.
	1 in	1 in
Northamptonshire	70	88
Cornwall	73	81
Notts	75	116
Cambridge	78	74
Suffolk	97	104

Two other counties evince an amount of mortality far less than the average ratio.

Table 24.

Counties.	Ratio of Mortality under 1 year of Age, to the Population in 1841.	
	Males.	Females.
	1 in	1 in
Durham	949	429
North Riding	1,170	0

On an examination of 95 districts (extra metropolitan) we observe the mortality under age 1 to be very excessive in 21.

Table 25.

Districts.	Ratio of Mortality under 1 year of Age, to the Population in 1841.	
	Males.	Females.
	1 in	1 in
Salisbury	18	125
Loughborough	31	49
Bridge-end (South Wales)	34	140
Canterbury	36	71
Mansfield	39	44
Walsall	39	80
Peterborough	49	60
Colchester	52	41
Northampton	54	48
Derby	61	146
Kidderminster	62	64
Chepstow	66	0
Nottingham	68	167
Plymouth	72	407
Hertford	76	148
Coventry	81	91
Exeter	85	118
Bedford	88	111
Chesterfield	89	148
Basford (Notts)	90	446
Liverpool	91	88
Dudley	96	112

We observe in this list the names of many towns where weaving or the manufacture in various modes of silk or cotton and similar fabrics is carried on, among which are Coventry, Kidderminster, Mansfield, Nottingham, Derby, Loughborough, and Basford; and in these localities the inhabitants are not only the subjects of great privation in those years when there is a lack of employment, but also at almost all seasons, from the insufficient remuneration which uniformly attaches to the manufacture of these fabrics. Their occupation and necessities combined, subject them to the inhalation of impure air in heated, confined, and often crowded rooms, to sedentary habits, and to almost continuous toil throughout fourteen or sixteen hours daily. The excessive mortality observed in Liverpool corresponds with the general mortality, and both depend upon the peculiar character, habits, and dwellings of the masses. It is remarkable that we do not observe the great manufacturing towns of the North in this list, and in explanation it may be stated, that the rate of remuneration for labour is good in ordinary seasons, (and in the case of unmarried females often very ample) so that privation is mainly restricted to times of commercial depression. The Potteries, also, are free from the excessive mortality, and the Midland iron districts are not remarkable for the presence of it; and perhaps the explanation just given in reference to the Northern districts may be truthfully applied to these districts also.

It is curious to remark, that the excessive ratio of mortality which we are now considering does not vary greatly in the district of Nottingham (including the town) and the county of Nottingham; whilst in the adjoining and similarly situate district of Derby the mortality is 250 per cent. higher than that in the county of Derby. Whether this consist in an excessive mortality in the town of Derby, as contrasted with its county, or in the county of Nottingham, as contrasted with its town, may be fairly questioned. There is a marked difference in some of the circumstances observed in the two counties, as shown by the following particulars. In Nottinghamshire much of the lace running and mending is carried on in private dwellings, in villages, and in isolated country places, and chiefly by females. Stocking making is also very common, and engages the attention of all the members of the family, male and female, either in the manufacture of the stocking on the machine, or in the seaming of it into the required shape. These two similar engagements occupy a very larger proportion of the inhabitants of the county; and it is not unfair to assume, that whilst the energies of the father and mother are reduced to a low standard by care, toil, want of sufficient food, exercise, and pure air, the infants are neglected or soothed by the influence of narcotic drugs. There is a greater proportion of agriculturists in Derbyshire. Lace running is comparatively unknown, and stocking making, although very common, is not so universal as in Nottinghamshire.

I cannot offer any explanation of the unenviable distinc-

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tion conferred upon the district of Salisbury, where the ratio of the mortality from phthisis at all ages is extremely high.

The ratio of mortality is considerably below that for all England in the following districts:—

Table 26.

Districts.	Ratio of Mortality under 1 year of Age, to the Population in 1841.	
	Males.	Females.
	1 in	1 in
ENGLAND	167	207
Darlington	0	154
Durham	0	552
Carlisle	0	0
Ipswich	0	0
Great Yarmouth	0	0
Ashby-de-la-Zouch	0	0
Gainsborough	0	365
Ashbourne	0	0
Swansea	0	263
Stafford	0	296
Doncaster	0	0
Richmond	0	0

In reference to this list, it is interesting to note the low ratio of mortality in the northern districts, and also in Manchester as compared with Liverpool. Merthyr Tydfil is well known as a town of eminence in an iron district, where a high ratio of general mortality is observed, and where filth and vice abound, and epidemics reap a rich harvest; yet there the rate of mortality from phthisis under 1 year is 230 per cent. lower than that for all England, whilst the neighbouring country agricultural district of Bridgend evinces a ratio 500 per cent. higher that of all England. At Neath and Swansea, also, and other parts, comprehending the Welch iron and the copper-smelting districts, the ratio of mortality is considerably lower than that for all England, and it is also remarkable that in these localities the ratio of mortality of females over males is extremely evident.

It is a curious fact, which has not hitherto been noticed, and which may demand further investigations in confirmation, that after the ratio of mortality has increased from the age of 10 to the age of 20, and remained somewhat stationary during the ten subsequent years, it increases and diminishes with great regularity during each succeeding alternate quinquennial period until or beyond the age of 75. This is evident both in males and females, and with more constancy in males. Thus, from each preceding five years in the cases occurring in all England and Wales the ratio

Decreases from age ..... 30 to 35, 40 to 45, 50 to 55, 60 to 65, 70 to 75.
Increases ,, ,, ... 35 to 40, 45 to 50, 55 to 60, 65 to 70.

We cannot affirm that this alternation does not occur at other intervals, as of four or of six years, since the Registrar-General's Returns are made up in quinquennial periods only.

This quinquennial alternation in intensity is again evident, on referring to the eleven Divisions of England and Wales, as shown in Table No. 19:—

Table 27.

Age in Quinquennial Periods.	Ratio.	Proportion of the Eleven Divisions, in which the alternate Increase and Decrease was observed in 1847.			
		Males.	Exceptions.	Females.	Exceptions.
30 to 35	Decrease.	10 of 11	London.	9 of 11	North Midland, South Midland.
35 ,, 40	Increase.	9 ,, 11	North Midland, Eastern.	10 ,, 11	York.
40 ,, 45	Decrease.	11		11	
45 ,, 50	Increase.	8 ,, 11	South Eastern, Northern, Welsh.	5 ,, 11	Welch, North Midland, Eastern, York, South Midland, South Western.
50 ,, 55	Decrease.	10 ,, 11	South Midland.	11	
55 ,, 60	Increase.	11		10 ,, 11	Eastern.
60 ,, 65	Decrease.	10 ,, 11	South Western.	11	
65 ,, 70	Increase.	8 ,, 11	Eastern, South Midland, South Western.	9 ,, 11	South Eastern, Northern.
70 ,, 75	Decrease.	11		11	

Thus, whether any importance ought to be attached to the knowledge of the fact or not, or whatever may be its explanation, it seems impossible to regard it as a mere coincidence. Assuming that we are dealing with a fact, the explanation of it seems to be as difficult as that of the periodic visitations of epidemics, as shown in the publications of (among others) the Board of Health; or of commercial disasters, as shown by (among others) the Registrar-General; or of war and general tumult, as demonstrated by Mr. Finlaison. We must leave this problem to the wisdom of our successors, hoping that they may be able to show the general principle which is thus involved in the production and recurrence of special causes in a cycle. At present, science lends us no assistance in this pursuit; observation and deduction are incompetent to show that it depends upon those circumstances which attend on the life of men,—such as changes in their social condition,—increase of care, labour, or exposure; or upon such as are peculiar to the sexes,—as the reproductive faculty, pregnancy, or the cessation of the menses. We know not of any changes in the functions of nutrition or growth, or in the degenerative process, which may explain either the peculiarity in the production of the diathesis, or the development of those morbid processes in the lungs which induce the attack of phthisis.

The fact gains additional confirmation, on referring to the 42 counties, as shown in the following Table, where nearly 5-7ths of that number support the rule which has already been laid down. It is right also to state, that this alternation is much more frequent than we have hitherto indicated; indeed, it is almost universal, but it does not commence, in all cases, at the same period of life: thus, in many, it appears as early as the 25th year, instead of the 30th, the period when our calculations take their rise. The fact is not rendered the less curious from this want of uniformity:—

Table 28.

Age in Quinquennial Periods.	Ratio.	Counties.	
		Males.	Females.
30 to 35	Decrease.	31 in 42	25 in 42
35 ,, 40	Increase.	28 ,, 0	28 ,, 0
40 ,, 45	Decrease.	34 ,, 0	37 ,, 0
45 ,, 50	Increase.	23 ,, 0	21 ,, 0
50 ,, 55	Decrease.	24 ,, 0	32 ,, 0
55 ,, 60	Increase.	31 ,, 0	32 ,, 0
60 ,, 65	Decrease.	31 ,, 0	35 ,, 0
65 ,, 70	Increase.	31 ,, 0	24 ,, 0
70 ,, 75	Decrease.	32 ,, 0	35 ,, 0

Read in Table No. 17, in Dr. Smith's Paper, in our last, as follows:—

Under 15	Females.	Divisions.	11
,, 25	Males.	,,	6 of 11. South Midland, York, Eastern, North Midland.
,, 45	Females.	,,	8 of 11. South Eastern, London, Northern.

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COMMENTARIES

ON

CONVULSIVE DISEASES.

By CHARLES BLAND RADCLIFFE, M.B.,

Licentiate of the Royal College of Physicians.

(Continued from page 557.)

IV. OF THE TREATMENT OF CONVULSIVE DISEASES.

In this practical and important subject there are few points in which all are agreed, and many in which we would venture to differ; and it is necessary, therefore, (if we would hope to gain audience,) to discuss the reasons upon which any opinion is to be founded. In order to this, then, we shall first attend to the questions relating to *hygiene*, and next, to those which concern medicine,—again resorting to the plan of passing the entire class of convulsive maladies in review, and appealing to the collective as well as individual testimony, when we wish to arrive at the correct principle of practice in any point.

I. In connexion with the history of convulsive affections, there are certain considerations which appear to indicate, that a primary and essential duty is to secure, as far as possible, a pure atmosphere, and a free exposure to the sun. The first necessity is shown in the evident connexion between the pestiferous emanations of sewers or marshes, and the cramps and rigors of cholera and ague, as well as in many other familiar instances; and we need not dwell upon what is an admitted fact, not only in convulsive, but in all other diseases. The latter necessity follows out of the first,—for light is a chief agent in the purification of the atmosphere,—but it receives its own proper confirmation in the exsanguine appearances of the body generally, and in the flaccid and uncoloured state of the muscles after death,—phenomena well known to point directly to the want of the same energising influence. And, further, the sun is necessary as a source of warmth as well as light, as, indeed, we may gather from the relief which mere artificial heat affords in the shiverings or shakings of delicate or aged persons, in the agitation of chorea, and in many other instances which are too familiar to need special mention.

These are obvious points, upon which there can be no difference of opinion, and upon which we need not dwell; but with the next point, on the contrary, there is so much uncertainty that the correct rule has yet to be laid down. What, then, we may ask, is to be the character of the diet? Is it to be generous or frugal? If we argue from cases in which convulsive phenomena appear in their simpler guise, we should reason in favour of the former alternative; for it is well known that a person is more disposed to shiver before a good meal than after it. The comical and annoying movements of chorea are influenced in the same manner, and there is no doubt that a well-spread table is of great importance in the cure; and as a general rule it is equally certain that all kinds of hysteric affections are most aggravated when the bodily strength is depressed by abstinence.

In epilepsy, also, if we consider the practice pursued in large lunatic asylums, we find no reason for the prohibition of animal food, but, on the contrary, we learn that patients affected with this disorder are invariably injured by starvation, and, (if anything) require more nutritious food than the other inmates. Our conclusion moreover is similar if we consider the results of ordinary practice. Here, indeed, an opposite plan is usually pursued, but, on examination, it is found that theory or experience is equally silent in its favour. The former affords no warranty, for the only hypothesis which would serve this purpose (namely, vascular fulness as a cause of the malady) has been shown to be untenable. The latter, also, is equally unfavourable, for we may challenge the warmest supporters to adduce unequivocal evidence of beneficial results. I have watched this point with great attention, and there is no doubt in my own mind upon it; indeed, I have invariably found, that epileptics exhibited speedy and unequivocal signs of improvement, whenever a diet of animal food was substituted for one consisting chiefly of farinaceous articles. At any rate, I think there is sufficient evidence to induce us to pause and consider well before we decide upon restricting the quantity or cutting off altogether the most nutritious article of food; and not only so, but to require the observance of a liberal rule until some better reason than we yet have is advanced to the contrary. We may not argue directly as to the influence of food upon the convulsive symptoms which usher in febrile affections, but still we know that the appetite has been deficient for some time, and the assimilation faulty. We know, also, that the best way of securing the resident medical officers and nurses of fever hospitals from the poisonous atmosphere of these places is to allow them a free supply of nutritious food. And that a full diet might have done something to prevent the initial rigors, we may argue further from the known fact, that a timely administration of appropriate nourishment will prevent the subsultus which is apt to supervene when the stage of feverish excitement passes off. There is no plethoric fulness in connexion with the accession of tetanus, and so far, therefore, there is no evidence that the attack was accelerated by any excess of food; and, on the other hand, it is found that beef-tea and soups are soon needed to counteract the tendency to sinking which marks the progress of this disease. The spasm, in fact, is often found to gain head when the system is actually fainting from exhaustion, and, therefore, any hint which is to be gathered here can scarcely be said to be in favour of starvation as a means of cure in convulsion. In catalepsy any evidence is negative rather than positive, but there is nothing, either in the history of the predisposition or the attack, which is opposed to the previous conclusions. And, finally, the argument in favour of a nutritious animalised diet in the treatment of the maladies under consideration, receives confirmation from the history of that convulsive condition of the heart, and of the system generally, which often results from excessive hæmorrhage, for in this case there is no doubt that an essential part of the plan to be pursued is to endeavour to replace the blood which has been lost, by the most nutritious food within the reach of the patient.

Now, in all these several cases the lesson which would seem to be taught is this, namely, that it is a serious error—so serious, indeed, as to threaten to negative a practice otherwise beneficial—to withhold animalised and generous food in the treatment of convulsive maladies. Of this we may be satisfied, if we reflect patiently upon any individual form of the malady, but more especially upon the one last mentioned, in which, indeed, there cannot be two opinions as to the principle to be carried out.

The question as to the expediency or inexpediency of stimulants is to be discussed in the same manner, namely, by proceeding from what is plain and obvious to what is obscure and doubtful. Beginning, then, where we began before, it is well known that a glass of wine is an excellent remedy for the shivering occasioned by cold, and that it is almost equally efficacious in the shaking tremulousness of old age. A glass of wine, moreover, is very likely to afford relief in a paroxysm of chorea. It would appear, also, as one of the results of the investigations of sanitary commissions, that the dram-drinking habits of the lower orders, though productive of incalculable evils when carried to excess, are of use (when restrained within the bounds of moderation) in counteracting the pestiferous atmosphere of close and ill-drained habitations. It is clearly established, also, that wine and fermented liquors are necessary to health in the case of persons engaged in fever hospitals: so that, from this consideration, as well as from that which has preceded, we should argue, that stimulants are necessary to prevent the convulsive symptoms which usher in febrile affections. At any rate, wine must be poured into the system in liberal quantities when subsultus supervenes, and thus this conjecture receives some confirmation. It is well known also, that the peculiar and distressing movements of delirium tremens are to be relieved by these means. In tetanus and hydrophobia the testimony is of a negative character, but what we may gather is in harmony with what has preceded. At any rate, large quantities of wine have been given, in both affections, without aggravating the spasmodic condition, and, in some instances, with sensible benefit; and that this latter result has not been more constant, is possibly to be accounted for by the fact, that opium has generally been administered at the same time, and in large quantities. In the convulsive affections induced by certain mineral poisons, there can be little or no doubt as to the expediency of stimulants. In an interesting case of mercurial trembling recorded by Dr. Watson, the patient stated that he could not attend to his work except he prepared himself by taking a small

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quantity of gin, and that by this means he became steady, and remained so for some time; and, as a parallel fact to this, it may be stated, that persons engaged in the working of lead are fully satisfied as to the necessity of stimulants in one form or another. Nor is it different with those cases of agitation of the heart or of the body generally, which refer to exhaustion, and particularly to hæmorrhage; for in those cases a free and persevering administration of stimulants, in conjunction with nutritious food, is our chief means of insuring relief. From these considerations, then, we may gain some direction as to the conduct to be pursued in the chronic affections to which we have not yet referred. In hysteria, however, there is not much difficulty; for it is well known that a glass of wine will afford considerable relief, and this almost equally in the convulsive attack or in the commoner state of excitement,—which state, in fact, is more nearly allied to delirium tremens than to anything more positive and active. In epilepsy, also, there are some cases in which it is found expedient to adopt a liberal practice; but in the majority of instances this is said to be altogether inadmissible. Here, however, the remarks which were made upon the solid ingredients of the diet may be repeated; and again it may be said, that a better reason is wanted for this prohibition than an imaginary plethora. Judging also from the history of the epileptics confined in lunatic asylums, where beer is in daily use, we do not find that matters are the worse for the addition; and, on the other hand, no unequivocal benefit can be shown to have resulted in cases where stimulants have been withheld; for, as we well know, this miserable malady has hitherto baffled the efforts to subdue it. In fact, there is nothing in the history of epilepsy itself to prevent us from applying to it the conclusions which have already been drawn, but the contrary; and for this reason I venture to recommend and practice a liberal conduct in this malady as in all the others. I may add further, that so far as I have been able to carry out this plan, the result has been satisfactory; indeed, I have found the moderate use of wine and ale to be a most essential part of the treatment, and in not a few cases I have satisfied myself that an attack has been warded off by their timely use.

Additional arguments will present themselves in the sequel, when we speak of medicinal agents; but in the meantime sufficient has been said, if care be taken to apprehend the full value of the collective testimony, to allow the conclusion, that convulsive affections require a liberal diet, both in regard of fluids and of solids.

There is yet another topic to be noticed before we quit the subject of hygiene, namely, exercise; and this I mention last because of its importance,—indeed it is that which, considering one seat of the affection to be in the muscles, especially recommends itself to our notice. What, then, we may ask, is the rule to be observed here? Is active exercise admissible, or is it not? That it is not, we think is sufficiently evident, if our previous conclusions respecting the nature of convulsion are correct; indeed, so far from this, it would appear that any exercise verging upon fatigue is to be avoided, for until the muscles have recovered their tone so far as to be able to resist in voluntary contraction, it is natural to conclude that we should be careful not to throw away what strength they have in voluntary efforts. With the views we have professed it would indeed appear as unwise to try muscles already overstrained, as to persevere in mental efforts with a paralytic brain, or to hurry the respiration when the lungs were incapacitated by disease; and, therefore, we must conclude that *rest*, in contradistinction to exercise is the rule to be observed in the treatment of convulsive affections.

II. The medicinal treatment of convulsive affections involves the consideration of many debateable points, and it is very difficult to arrive at the possession of any fixed and constant principle of action; indeed, it is only possible to do this by a careful and separate examination of the nature and effects of the chief forms of remedial agents. And to this, therefore, we will endeavour to apply ourselves.

1. Our first inquiry shall be into the merits of the measure which occupies the head of the list, namely, *bloodletting*. Now, in doing this, it may be said, without any fear of contradiction, that bleeding would never be thought of as likely to relieve the tremulousness of delicate or aged persons. Experience has also decided against this remedy as a means of cutting short the initial rigors of ague or fever, or the cramps of cholera,—in which latter case, indeed, it rarely happens that blood will flow if a vein be opened; and whatever doubt there may be at the onset, vanishes towards the sequel; for no one could be mad enough to resort to it for the relief of subsultus. Again, there is no imaginable benefit to be expected in the agitation or epileptoid convulsions consequent upon hæmorrhage. And, in catalepsy, there would scarcely seem to be any more likelihood of good resulting from it than in the rigidity of actual death.

Bloodletting is manifestly improper in the greater number of choraic or hysterical subjects. At times, indeed, the circulatory powers may be somewhat active, and the symptoms those of excitement rather than of convulsion; but it does not follow that, because bloodletting may be then expedient, (which is by no means certain,) that it is so in the convulsive forms of the malady. There are cases of epilepsy, also, in which all are agreed that no blood can be spared with impunity, but in the majority an opposite opinion is entertained. It would appear, however, that the practice has greatly changed of late years, and is still in process of change, and that the lancet is now resorted to with far more hesitation than formerly. Attention, indeed, would seem to have been drawn to the fact that an attack is very apt to follow accidental or intentional hæmorrhage, and that a like result is the invariable attendant upon death in the shambles; and, on the other hand, faith seems to have been shaken as to the benefits resulting, even when the depletion has been very carefully guarded. Cases illustrating the first doubt are related in great numbers in medical writings, and are of continual occurrence in every-day practice. A few months ago, for example, I was called to a youth residing in Paddington, who had been under my care for some time, and who had almost recovered from a liability to frequent and severe epilepsy. He had had a violent fit, and this had followed immediately upon a very free hæmorrhage from a wound which he had inflicted in his hand with a chisel. Since this accident the fits have been as frequent as they were before, and the loss of blood is the only cause to which I can assign the relapse. In another case of epilepsy occurring in the same neighbourhood, which had been relieved in like manner by a generous plan of treatment, and in which the fits had been absent for nearly two years, a relapse took place during a visit to the country, within a few hours after a free bleeding, which had been thought advisable to relieve some acute and accidental mischief. Another objection to this mode of treatment is also to be found in the fact, that convulsions are most violent where the system is most emptied of blood and most debilitated in other respects, and that coma, and not convulsion, is the most characteristic phenomenon in sanguineous habits; and hence we should argue, that any measure which would lessen the vascular fulness would be likely, *ceteris paribus*, to increase the liability to the epileptic seizure. We do not object to blood-letting, therefore, merely because convulsion is the consequence of excessive hæmorrhage, but on this ground also, namely, that the severity of the attack would seem to be in proportion to the impoverished character of the blood and the emptiness of the vessels.

Many, however, will agree in discountenancing the use of the lancet, and yet at the same time contend that local bleeding is attended with great advantages. It seems to me, however, that the arguments against the one are equally against the other, and that to reason differently savours somewhat of the times anterior to the discovery of the circulation. Moreover, it not unfrequently happens that the advocates of this practice find it necessary to associate it with tonics; and this itself is a great objection, for if the one be necessary (if we reason upon ordinary rules) the other is unnecessary,—and not only so, but injurious. Nor can it be urged that local depletion is needed for the relief of congestion; for, supposing such a state to exist, it has been shown to be not the cause of the disease; and even granting this, it may be objected that the mere taking away of blood, by increasing the general debility of which the congestion is symptomatic, would be more likely to aggravate than relieve the evil.

It would appear, therefore, that there is a great mass of direct evidence against bleeding in these affections, and, on the other hand, we can find no proof that certain benefit has resulted from the practice. Indeed, as we shall see in the sequel, the voice of experience is in favour of a contrary plan.

2. The true value of *purgatives* in the treatment of convulsive affections may be ascertained by considering their

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effect in varied as well as in particular circumstances. In the first place, then, we find no difficulty in deciding upon the question of fitness in persons where the convulsive symptoms assume the form of tremulousness, whether this be in early life or advanced age. Here we find them occasionally necessary to correct a loaded state of the bowels, but beyond this they are not wanted; and this is as we might expect, for the muscular agitation does not depend upon the irritation of any acrid matter lodged in the digestive canal, or upon any plethoric fulness of the vascular system, which might be relieved by a free and copious action of the bowels, but simply upon general delicacy or decline. In chorea and hysteria much good is done by a judicious use of aperients, in the relief of the obstinate constipation which is so frequent and troublesome a symptom; but we find that the articles selected by experience as best fitted for securing this end are endowed with stimulant and tonic properties. Indeed, a most successful plan is to associate some remedy which is a tonic-bitter as well as aperient, as aloes or rhubarb, with some decided tonic. The bowels, in fact, resume their action most readily under means which impart tone to the system generally; and, unless this end be secured, anything which merely hastens excretion, will be likely to do harm rather than good, and lead to greater torpidity. Hence, we should argue, that purgatives, as purgatives, are not called for under ordinary circumstances in the treatment of chorea and convulsive hysteria. Again: the history of the shivering, starting, and spasmodic movements, associated with fever, are of like significance. In initial rigors the system presents evident and unmistakable signs of depression, and we should argue, therefore, as to the inexpediency of remedies which themselves are directly calculated to aggravate this state. In cholera, indeed, it would seem as if the consequence of such a practice were shown to us experimentally, for here we find that the severity of the cramp is in proportion to the purging. It is often found, also, that the subsultus of the latter stages of fever is in great measure due to the exhaustion consequent upon diarrhœa. So that from all points of view alike, the evidence is unfavourable to the use of purgatives in these particular cases. Again: it is found that the movements in the bowels occasioned by these remedies are very apt to intensify the spasms of tetanus. This result is attributed to irritation; but it is equally, if not more reasonable (considering the premises) to suppose it due to the depression resulting from the evacuation, as in cholera or colliquative diarrhœa. Nor is any evidence in favour of purgatives to be gathered from the history of catalepsy, or any other state in which the muscular contraction is continuous.

Unless, therefore, there be a loaded state of the bowels, we find as yet no reason for the employment of purgative remedies in the treatment of convulsive maladies. And, this being the case, we have next to inquire into the rule which applies in epilepsy. Here, then, it is not to be denied, that purgatives are given and given largely, and that an exceeding prejudice exists in their favour; but, notwithstanding this, it is difficult to adduce any satisfactory reasons, either theoretical or experimental, for the practice. We cannot recommend them for the removal of plethoric fulness, for this has been shown to have no existence as a cause of the disease. We cannot recommend them on account of any certain good which their use has produced, for of this there is no evidence. It is well known that benefit has frequently resulted from a combination with tonics, but in this case it is begging the question to ascribe the chief share to the purgatives. It is well known, also, that benefit is almost invariably found in the use of oil of turpentine; but here, again, the purgative action is quite secondary to the stimulant, at least we may so suppose, for this remedy is much more nearly allied to pure stimulants than to any other class of medicinal agents; and not only so, but the benefit itself, in many instances, is altogether irrespective of any action upon the bowels. Nor does mercury deserve the exception which is so often accorded to it, especially in this country. There are, undoubtedly, innumerable cases in which this drug is of the highest value; but that convulsion is not one of these, may be argued from the known fact, that the convulsive phenomena called mercurial tremblings are actually induced by it, when introduced into the system in poisonous quantities, as is the case in gilders. In fact, there is no evidence that any purgative is necessary in epilepsy, any more than in the other convulsive affections, unless to remove some accidental accumulation in the bowels.

I would insist upon these remarks as of much practical importance; for on several occasions I have found reason to believe that a treatment otherwise judicious has been effectually counteracted by the administration of purgatives. A friend of my own, for example, has a child of about ten years of age, in whom epilepsy gradually developed itself upon infantile convulsions. The habit of the patient was very delicate, with a strong tendency to strumous disease; and to counteract this evident evil, good food and wine, with chalybeates and other suitable remedies, were recommended. Every attention was paid, and with some benefit; but still the fits continued, and there was reason to fear that the sequel would be as unfortunate as it too often is. While matters were in this state, however, I happened to discover that the mother, at the instigation of the grandmother, had been long in the habit of dosing the child with frequent supplies of calomel and castor-oil, or salts and senna. On this coming to my knowledge, I caught at the hope which presented itself, and, representing the evil consequences of this conduct as strongly as I could, I gained a promise of compliance with my wishes. This was two years ago; and mark the result! In a short time there was a manifest improvement in the general health; and as this change took place, the fits became less frequent and severe, until at last they entirely ceased. Twelve months, indeed, sufficed for the cure; for I learned only the other day that a year has now elapsed since the last. Now, I mention this case because I had an opportunity of watching it closely from beginning to end, and because I could discover nothing which can account for the beneficial change in the symptoms, unless it be the discontinuance of the habit of continually drenching the patient with purgative remedies.

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[To be Continued.]

ON THE INFECTIOUS ORIGIN AND PROPAGATION OF CHOLERA.

By ALEXANDER BRYSON, M.D., Surgeon, R.N.

(Continued from page 456.)

The only other theory at present to be noticed, is that which attributes the disease to a cause evolved from the soil or subsoil in the places where it has shown itself. This theory, founded apparently on the supposed spontaneous evolution of cholera in localities at short distances from each other, has the merit of being specific, although it hardly comes within the range of legitimate deduction; nor is it supported inferentially by the existence of any known agent or cause of a like nature. We (at least so it is assumed) are ignorant of any law or influence connected with the material world, which, in the natural course of events, could impart to small circumscribed spots, or to narrow tracts on the surface of the earth, at distant periods, and for brief portions of time, the property of emitting a peculiar morbific agent, capable of producing one series of morbid actions on one class of animated beings only. The ubiquitous agency of electricity and magnetism can have nothing to do with so mysterious a power as this; neither would they assist us in detecting its presence or its modes of acting. We might, by a stretch of the imagination, suppose this morbific entity to be a new agent; but then it would become a question, whether, from the many distant scattered eruptions of cholera, and the supposed influence of the weather, both as regards its evolution and decline, it would not be more reasonable to assume, that, instead of rising from the soil or subsoil, it fell from the clouds, passed,—as, indeed, it has been suggested,—over a limited extent of the earth's surface, and then rose again into the upper regions, from which, like an unbroken cohesive cloud, it again fell to the ground; thus continuing, by its wave-like progression, to produce a concatenated string of effects across an indefinite tract of the globe. That there may be things existing in nature, which, as yet, have escaped our notice, and that amongst them there may be some co-operating cause or influence which issues from the soil, and assists in the propagation of epidemic diseases, it would perhaps be unreasonable to deny; but, as regards cholera, it is to be hoped we are now in pos-

session of such facts as will enable us to explain its epidemic spread by an agency of a less problematical character.

It has been somewhat hastily concluded, that if cholera were truly an infectious disease, that the whole or the greater part of the inhabitants of towns would be swept away by it. It might as well be argued that the same result would follow an outbreak of other infectious diseases—as for instance yellow fever, or the general diffusion of a non-personal epidemic cause throughout the atmosphere, that if the wind once became charged with the poison, it would be suddenly scattered far and wide over a large extent of country, not dropping as has been supposed, and as the appearance of the disease might lead us to infer, on one town or village, and passing over others, or on certain districts of a town, while it left others unscathed. The very circumstance of cholera infecting particular localities, becoming, as it has been termed, "localised," most distinctly shows that it does not depend on what has been hitherto understood and described as an "epidemic constitution of the atmosphere." It is about as impossible to imagine that the wind which passed over a small village in Argyleshire, was impregnated with the choleraic miasm, and that the parallel currents on each side of the village were free from it, as it is to imagine that the toll-bar beyond which the disease did not extend formed an obstruction to its progress. (a) In all communities there are some persons more liable to be attacked by any prevailing epidemic than others; the latter fortunately, or by a wise provision of nature, are generally the more numerous. Nevertheless, if all the morbid affections arising from the choleraic cause were properly stated,—that is, if all the cases of cramp, diarrhœa, and disordered bowels, had been enumerated under the same head with cholera, it would be found that the proportion of residents in those towns in which it acquired any great degree of virulence, who entirely escaped its influence, was much smaller than is generally believed. In estimating the number of cases of influenza that occur in any given locality during an epidemic invasion of that disease, we do not usually separate those which present merely catarrhal symptoms from the more severe, which seriously involve the bronchial tissues; by the same rule the surplus of diarrhœal cases which occur during an epidemic invasion of cholera should be included under that head.

During the year 1849, after deducting the proportion of deaths from diarrhœa common to years when cholera did not prevail, there occurred about 15,500 deaths from cholera and diarrhœa in the metropolis. By admitting and it is presumed the estimate is within the mark, that for each of these deaths there were, including cases of diarrhœa and other allied affections occurring from the same cause, at least twelve recoveries; this would give 186,000 as the total amount of attacks; these again, multiplied by twelve, would give 2,232,000, a sum equal to the entire population of London; showing that, even including the more healthy districts, every twelfth person suffered more or less from the prevailing cause. If the more healthy districts were struck out, and the calculations made on the returns from those only that suffered most, it might be shown that in those, making a fair allowance for cases which attracted little or no attention, there were few of the inhabitants who entirely escaped the prevailing disease in one form or other. It is, therefore, evident that, although the disease may rage with great virulence, and although it may be highly infectious, still there is no reason to conclude that it ought to sweep away anything like the greater bulk of the population.

As it is not possible then, from all that is known respecting the qualities and motions of aerial bodies, to ascribe epidemic cholera to an abnormal condition of the atmosphere, whether that condition results from physical changes in its natural constituents, from simple admixture with miasmata, or with other unknown telluric emanations, having the properties of matter, are there any good grounds for supposing that it results from a specific animal poison emanating from the human frame? By comparing its evolution and spread with the evolution and spread of other infectious epidemics, the similarity of all the principal phenomena will, to say the least of them, appear sufficiently remarkable.

For example, in the year 1835, several cases of small-pox were introduced into the island of St. Mary, which lies in the estuary of the Gambia, where the natives, not being protected by vaccination, are necessarily, with respect to their susceptibility of small-pox, on the same footing with the people of this country as regards cholera. These cases were placed in a detached building, surrounded by a high wall, and at a considerable distance from the town; and all communication between them and the people of the town was strictly interdicted. Here the disease entirely wore itself out, and there was no suspicion that it had extended further. In the course of two or three weeks however, a case made its appearance in a hut at the opposite extreme of the town, nearly a mile distant. Other cases followed in the adjoining huts, and soon afterwards the disease spread all over the town. In about a month afterwards, it next appeared in a village a few miles further up the river, with which there had been frequent intercommunication by canoes. After it had become fairly established ("localised?") in this village, it next, after similar periods of delay, successively extended to others still further inland, while nearly all the villages in the creeks, and on the tributaries of the main stream, became involved; some, as happens in cholera, escaping for a time, but suffering subsequently when the disease had declined in those around them, whilst others escaped altogether. Still the epidemic, on the great scale, went on spreading by stages far and wide over an immense extent of country, until every trace of it was finally lost amidst the tribes of the interior, with which there is no communication.

Difficult as it may be to account for an eruption of cholera and its subsequent extension in places having but little communication with each other, it most unquestionably appears, not only in this country, but over the whole of Europe, to have been governed by laws, if not identical, at least somewhat similar to those which governed the spread of small-pox as detailed in the preceding instance. And if in that case the epidemic cause was not successively evolved from the soil, or from the atmosphere, at the different times and places where the disease made its appearance, as most unquestionably it was not, there is as little reason to suppose that the cholera during its first or last invasion of this country arose from a peculiar condition of the earth or the air, at the different places in which it made its appearance. If indeed we must have an epidemic cause affecting particular places, and endowed with specific properties, attacking the population on one side of the Thames, while it leaves untouched those on the opposite side, it is surely more reasonable, and more in accordance with established facts, to suppose that it originates from a diseased condition of mankind, rather than from a diseased condition of the air they are breathing, or of the earth on which they tread.

It is very difficult to obtain any direct or positive proof of the infectious communication of cholera, in consequence of the evidence required to establish the fact being generally complicated with evidence in favour of other presumed causes, or rather, perhaps, from the difficulty of proving that there did not exist some local cause capable in itself of producing the disease. For instance, a ship of war in which there had not been any cases of cholera, came in from the open sea, and anchored at Spithead. Two men left her, and took up their abode with their friends in a dirty lane in Portsmouth, in which cholera was prevalent; they immediately contracted the disease, and died of it. This, by one class of reasoners, is set down as direct proof of infectious communication; by another class, that it only proves the existence of the same epidemic cause which produced the first cases in the locality, while the disease was still too far distant to attribute them to a personal virus. It thus becomes evident that we cannot arrive at any satisfactory conclusion from facts so complicated and so liable to be turned in favour of either side of the question. If these men, after contracting the disease in the lane, had, while it was in its incubative stage, returned on board, and there suffered from it, then, if the disease immediately afterwards had spread among others of the crew who had not had communication with the shore, the conclusion most unquestionably would have been that it was infectious.

On the other hand, the proofs adduced in support of infectious propagation are not numerous, and there are few

(a) "In Darvel, a small village in Ayrshire, which had escaped the epidemic of 1832, cholera broke out in January last (1849), but confined itself completely to one-half of the town, although it consisted only of one main street, which is divided into two nearly equal parts by a toll-bar, beyond which to the west not one case occurred, although the inhabitants were in constant communication with those of the infected locality, and to all appearance under much the same physical circumstances."—*Dr. Beith's Report.*

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of them against which serious objections might not be raised by those who take an opposite view of the question; while there are others, such as the appearance of the disease at Noss after the arrival of the fishing vessel from Dieppe, and the seizure of the attendant on the tramper in Chatham Workhouse, which it would be difficult to deny, although the eruption of the disease in both these instances so soon after exposure to a presumed infectious source, might no doubt be set down as merely coincidental; still, so frequently has it happened that these so-called coincidental eruptions of cholera have followed the introduction of one or more cases into a healthy locality, that it will be very difficult to explain them all by any rule or law appertaining to the doctrines of chance.

Mr. Greene, of Fraserburgh, gives the following account of the introduction of cholera into two villages in Scotland:—"Two boats, one belonging to Cairnbulgh and the other to Inveralochy, met at Montrose, and their crews on several occasions strolled through the town in company, although aware that it was at that time infected by cholera. On their passage homeward, they were obliged to put into Gourdon, where one man belonging to the Cairnbulgh boat died on the 22nd of September, after an illness of fourteen hours, with all the symptoms of cholera. Several of the men of both boats were at the same time attacked with serous diarrhœa, of which three of them had not recovered when they reached their respective homes; nor indeed until the first cases of the epidemic broke out in the villages.

In Inveralochy the first case appeared on the 28th of September, three or four days after the arrival of the boat; the sufferer, the father of one of the crew, had been engaged in removing the cargo along with other members of his family. Two other cases occurred in this family, one on the 30th of September, and one on the 1st of October.

In Cairnbulgh, the first cases appeared on the 29th and 30th of September respectively, and both patients had also been engaged in removing the cargo of the boats (shellfish) belonging to that village. No other cases appeared until the 3rd of October; so that from the 28th of September to the 3rd of October none were attacked in either village, but those who had come in contact with the suspected boats, or their crews.

The subsequent cases were chiefly among relatives of those first attacked; and the order of their propagation was as follows:—"In Inveralochy, the first case was the father of a family; the second, his wife; the third, a daughter living with her parents; the fourth, a daughter who was married and lived in a different house, but who had attended her father and mother during their illness; the fifth, the husband of the latter; and the sixth his mother. Other cases occurred at the same time, although they were not known to have communicated with the former. One of them was the father of a family; the second his son who was seized the day after his father, and a daughter the next day."

The first cases at Boddam are thus detailed by Dr. Jamieson, of Peterhead(a):—"A married woman, of sober, industrious habits, who had not, as far as was known, been exposed in any infected locality, was, when returning from one of her usual journeys, attacked with diarrhœa. After reaching home she partook of the usual family meal, and, without complaining, retired to bed. Early on the following morning she was awakened by severe cramps, which speedily terminated in collapse and death. This woman's son, who had attended her during her illness, was the next person attacked, after which the disease spread rapidly in the village; but the attacks were almost exclusively confined to near relations of the first case, who had been exposed to infection while attending on their sick friends." It is also possible, that in these three villages the eruption of the disease may have occurred coincidently with its introduction; but, considering how rigidly the whole of the first attacks were confined to those who came most in contact with the imported cases, it is far from being probable.

There were circumstances attending the eruption and progress of the disease in the ship Havering, which have been already noticed, and in the Apollo, hereafter to be mentioned, that, however, do not admit of these evasive modes of reasoning; and, if fairly examined on their own merits, and in connexion with other infectious epidemics, it is presumed they will go far to settle the question, as to whether cholera, as it has generally occurred in this country, depends on an epidemic constitution of the atmosphere, or on a personal virus emanating from the bodies of the sick; for, if it can be once established that a series of cases have occurred, as they most unquestionably did in these vessels, in a manner which precludes the possibility of attributing them to any other cause than infection, it will be in vain to deny, that because the disease in every instance and on all occasions has not spread, that it is not infectious. With as much reason we might contend, that because every spore of the common puff-ball fungus that is scattered on the ground does not germinate and grow, that they are not the means by which the plant is reproduced and propagated.

The Havering having been chartered by order of the Right Honourable the Lords Commissioners of the Admiralty to convey prisoners to Van Diemen's Land, left Deptford on the 21st of June, 1849. She had then on board a guard consisting of fifty soldiers, and a crew of sixty seamen. The former came from Chatham, and the latter, it is to be presumed, were entered on board in the usual way, and came from places in the immediate neighbourhood of the docks. It is immaterial for the present whether cholera existed at the time in either of these places, as the proofs of its having displayed infectious properties rest principally on the subsequent progress of the disease.

On the 20th of June, when she was off the Start Point on her way down Channel, and at a considerable distance from the land, cholera suddenly made its appearance, first among the soldiers, and then, two days later, (on the 28th,) among the seamen. In attempting to trace the disease to its source in this vessel it will, it is assumed, be necessary to adopt one of the following theories respecting its origin, viz.:—1. That both classes of men had been separately exposed to the influence of an epidemic cause previously to their joining the ship; or that, conjointly, they had been exposed to the same influence after they had embarked somewhere in the river, or after the vessel had entered the English Channel; or, 2ndly, that a choleraic cause, not depending on extraneous sources, had been generated or evolved within the ship, or that she had acquired it by passing through a distempered portion or current of the atmosphere; or, 3rdly, that the soldier who was first attacked had brought with him the germs of the disease, which were, subsequently, developed, after a period of incubation, and afterwards reproduced, and propagated through a succession of cases, until every person within the vessel exposed to their influence and susceptible of the disease had been attacked.

There are several reasons why the first and second of these views or theories should be rejected. In the first place, because few if any of the numerous vessels entering men at the same time and from the same places exhibited anything like the same proportion of cases; by far the greater number entirely escaped, a fact of itself which goes far to prove that the disease, at least as regards the majority of the attacks, did not originate from any general cause exterior to the vessel. Moreover, if the men had contracted the disease on shore, it is extremely improbable that its evolution would have been retarded for so many days, or that the attacks, when they did occur, would have been so simultaneous; and further, because after the disease was evolved, the proportional number of attacks within a given space of time, as well as the proportion of attacks to the number of persons, was widely different from that which occurred amongst the communities which they had just left. Of the hundred and ten men on board the Havering, twenty-eight were attacked with cholera and diarrhœa within the space of eleven days. Had the inhabitants of the Eastern district of London suffered in the same proportion, those who escaped would hardly have sufficed to attend to the ordinary wants of the sick, and to bury the dead.(a) Lastly, as the ship was new and thoroughly clean in all her compartments, it is equally improbable that any cause could have been generated in her, either among her stores or in her holds, and not in any other vessel, however differently freighted, passing between the estuary of the river and London-bridge. As it is not possible, then, for these and other reasons, to attribute the whole of the attacks to the individual exposure of the soldiers and seamen to an inorganic poison generally

(a) For these interesting communications we are indebted to Dr. Bruce, of Deptford Dockyard.

(a) One in every 4 of the 120 men in the Havering was attacked, and one in every 18 died. Had the attacks and deaths in the Eastern district been the same, (the population being 445,859,) the attacks in eleven days would have amounted to 111,464, according to Table No. 3 in the Report on Epidemic Cholera, published by the Board of Health, and the deaths to 34,[illegible]

diffused in the atmosphere, or to any local poison arising from the timbers of the ship or from her cargo, or to her having passed through a column of poisoned air on her way to the Start Point, setting aside all problematical and purely supposititious causes, we are inevitably forced to the conclusion, that the whole of the attacks subsequently to the first must have been the result of a specific infectious virus, emanating from the person or the persons previously affected. It is at all events more probable, and more in accordance with reason and analogy, to suppose the disease was so introduced and propagated, than to suppose that each succeeding case that occurred was the result of a non-personal cause, generated either within the ship herself, or in the earth, in the air, or in the water immediately contiguous to the ship. The whole of the circumstances attending the eruption, extension, and decline of cholera in this vessel, so strikingly resemble those which usually attend the invasion of other infectious maladies, that were the name of the disease withheld, and the circumstances only described, it would be difficult to decide whether the crew had suffered from typhus fever, yellow fever, or cholera.

[To be continued.]

ON THE PATHOLOGY OF THE UTERUS, ITS ANATOMY AND PHYSIOLOGY.

By T. SNOW BECK, M.D. Lond., F.R.S.,
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Physician to the Farringdon General Dispensary and Lying-in Charity.

[Continued from page 585.]

III. THE PATHOLOGY (CONTINUED).

(a) *The Pains.—(Continued.)*—It not unfrequently occurs that the pains which are the objects of complaint, and for which assistance is sought, indicate the disease to be seated in the vagina, while, in reality, the uterus is the organ affected. This occurs when the uterus becomes enlarged from any cause, slightly descends in an already ample pelvis, and presses upon the upper part of the vagina. The same thing may even occur from flatulent distension of the abdomen forcing the uterus deep into the pelvis. However, even in these cases the diagnosis is far from difficult, and may be arrived at by the following data:—(a) The pain is always notably relieved by the recumbent posture, the pressure of the enlarged uterus being thus taken off from the vagina; and (b) the character of the pain is peculiar. The patient describes it as conveying the idea that something is injured or out of place in the back, or that the back is broken. It is, in fact, the "broken-back" pain so well known to practitioners in this department of medicine. A case strikingly illustrating the importance of attending to the signification of this symptom occurred to me a short time ago. A widow lady, aged 40, was ordered by an obstetric physician to apply a large blister to the sacrum to relieve a pain seated in that part. She did so, and remained in bed the following day by reason of the great soreness of the blister. The morning after, feeling as usual, she got out of bed, and, while walking to the fire-place, was suddenly seized with violent pain in the back, which caused her instantly to fall into a chair near, and from thence she slid to the floor. No one being present, she succeeded with great exertion in reaching the bed, by "pulling with the hands and rolling on the stomach." Shortly afterwards I found her complaining of violent pain in the sacral region, extending round the hips and down the posterior part of both thighs, in the course of the sciatic nerve. She was unable to turn in bed from the violence of the pain, or to bear the least weight on the legs while in bed, stating as a reason, that she "felt as if the back was broken, or as if the limbs were separated from the body." Her general appearance was that of health,—the pulse 80, and regular; the skin cool; the tongue clean and moist; and the bowels regular. The catamenia were regular, only for the last three periods the quantity was rather diminished, yet with no increase of the trifling pain which always accompanied it. She remained in bed for ten days, unable to move except with great pain and difficulty, and then only succeeded in gaining a temporary relief from the severe pain by slight change of position, effected through pulling at ropes fastened to the head of the bed. Colchicum mixture was administered three times a day, with mild alteratives and Dover's powder each night; the blistered surface was also sprinkled with acetate of morphia as long as it remained open, and when healed an opium plaster was applied over the part. At the expiration of this time so little relief was obtained, and her own sensations indicating that the disease "was not touched" by the remedies employed, she became anxious as to the result, and questioned me concerning it. I now told her, that, from the situation and character of the pains, I considered the uterus to be enlarged, and, by pressing upon the parts beneath it, to produce the pains under which she was suffering. After much hesitation, she submitted to an examination with the finger, when the uterus was found enlarged, and resting upon the posterior wall of the vagina. By gently raising the uterus with the finger, considerable relief was given from the pain in the back, and by pressing the finger on the upper part of the posterior wall of the vagina, the suffering was greatly increased; these two circumstances convincing the patient of the correctness of the former opinion. Six leeches were now applied to the uterus, and the bleeding afterwards encouraged. So marked a relief was thus obtained within two hours after the application of the leeches, as to remove all further objection to this plan of treatment, however disagreeable to the feelings to submit to. Five days afterwards, six leeches were again applied, and so much benefit derived, that, after the immediate irritation of the leeches had passed away, she could turn in bed with comparative ease, and stand for a few moments. The leeches were repeated twice afterwards, when she rapidly got well, and soon walked about as usual.

In addition to the pains attending upon the functional diseases of the uterus, and described as reflected pains, there is another, seated low down behind the pubes, which arises directly from the disease, and seems to indicate a disorder seated in the vagina, or in the uterus, or in both organs at the same time. It is of a hot, heavy description, with shooting exercebations, from the pubis to the middle of the sacrum, and also along the course of the vagina. When moderate in degree, the pain is much increased by walking; and then has added to it the character of a dragging sensation, with heat, behind the pelvis. Sometimes it is very severe, and is thus described by a patient who suffers much from it:—"The pain is constant, though sometimes worse than at other times. When very bad, it seems to contract the parts closely connected with it; it is also accompanied with a sensation of almost unbearable heat, and great weight; the part in which it is situated being tender, even to touch. It is quite impossible to sit or stand erect; the most easy position being that of sitting with the body bent forwards almost double."

(b) *The Disordered Menstruation.*—The degree to which this function is interfered with, varies according to—(1.) The severity and nature of the disease; (2.) The constitution of the individual, the uterine functions being more readily influenced in some women than in others; and, (3.) The length of time which the disease has existed. After a time the general health becomes affected, and this, in turn, re-acting upon the functions of the uterus, becomes an additional cause for their further derangement. The chief varieties I have met with are the following:—

(a) Regular in recurrence; varying increase of pain both before and during the catamenia; quantity and duration unaltered (three to five days); colour unchanged.

(b) Regular in recurrence; increase of pain both before and during the catamenia; quantity and duration increased (seven days, or longer); colour dark, inclining to black.

(c) Regular in recurrence; much increase of pain before and during the catamenia; quantity and duration much increased (seven to fourteen days), and frequently accompanied with a flow of pure blood, which coagulates as "clots;" colour good.

(d) Regular in recurrence; much increase of pain before and during the catamenia; quantity and duration decreased (two to three days); colour pale.

(e) Regular in recurrence; much increase of pain before and after the catamenia; quantity varying, generally diminished; duration irregular (continuing two days, ceasing one or two days, recurring one or two days); colour pale.

(f) Regular in recurrence; increase of pain before and after the catamenia; decrease in quantity; duration only a few hours; colour pale.

(g) Irregular in recurrence (from two to six weeks); much increase of pain before and during the catamenia;

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quantity and duration increased (one week or more); colour deep, or inclining to black.

(h) Irregular in recurrence (two to six weeks); increase of pain before and during the catamenia; quantity and duration irregular (continuing two days, ceasing one or two days, recurring one or two days); colour pale.

(i) Irregular in recurrence, (three to six months); much increase of pain; quantity trifling; duration very short; colour pale.

Except in some few instances, I have not been enabled to trace any definite relation between the disease affecting the uterus and the state of the catamenial function. In acute and chronic inflammation of the organ, and in the affections following, or complicated with deficient absorption after child-birth, the catamenia continues regular in its recurrence, whilst the accompanying pain is increased, and the amount and colour of the discharge is liable to considerable variation, without this variation being assignable to any particular disease. It is singular, however, that in inflammations of the vagina, the periods of recurrence become gradually approximated, so that the catamenia appears every fortnight, or oftener; whilst the duration and quantity of the discharge increases—seven to fourteen days, or even longer; and the colour is usually bright red. The state of the general health appears to exert great influence over this function. When the general health has become debilitated, as a consequence of the long continuance of an affection of the uterus, the recurrence of the catamenia becomes irregular, the quantity small, and the colour pale. The same condition of this function again occurs after the cure of a long-standing uterine affection, when, to indulge in a supposition, the irritation of the organ being removed, the condition of the general health affects this periodic action of the uterus. Whether this supposition be correct or not, the clinical fact is certain, and requires to be borne in mind in the treatment, lest we are led to interfere with the healthful course of the disease by mistaken notions as to the condition of this function. As the general health slowly recovers after the removal of the local disease, I have generally found the functions of the uterus gradually to return to their healthy condition without any special medication for this object.

(c) *The Discharges per Vaginam.* — These vary much according to the severity of the disease, and to the degree to which the vagina is affected. The principal varieties may be included under (1), vaginal discharges, or those which arise from the vagina itself; and (2), uterine diseharges, or those which come from the uterus.

(1) *Vaginal Discharges*, of which the chief varieties are,—

(a) A transparent mucous discharge, which is only an increase of the natural secretion of the part, and which may recur without any pathological signification. In some females, and in some states of the health, this abundant mucous secretion appears to be innoxious, if it be not a healthy condition.

(b) A white opaque mucous discharge. This variety frequently occurs a few days after, and sometimes a few days before, the catamenia; and in more marked cases it continues during the whole of the period intervening between the catamenia. The quantity may vary from a slight moisture scarcely noticed by the patient, to a copious white discharge. On drying it leaves a white mark on the linen.

(c) A constant white discharge, in appearance similar to the above; but which, on drying, leaves a more or less yellow mark on the linen. It is the former variety mixed with a variable amount of pus.

(d) A yellow discharge, which may be thick, when it is a large amount of pus mixed with some of the above white mucous discharge; or it may be thin, when it consists chiefly, if not entirely, of purulent fluid. It leaves a decided yellow stain on the linen.

(e) A thin discharge, which is described by the patients as being similar in appearance to the fluid from a blister, which, when it dries on the linen, leaves a similar, yet more yellow mark on the linen. Sometimes it is thin, like dirty water, and then only causes a dirty stain when it dries.

(f) Any of the preceding varieties, to which a peculiar and disagreeable odour is added, closely resembling that of decaying salt fish.

(g) A sanguinolent discharge. The frequent occurrence of blood, mixed with the vaginal discharges during the presence of inflammation of this part, would lead to the inference that blood frequently escapes from the vessels of the vagina during inflammation. This inference is further strengthened by the singular influence which inflammation of the vagina exerts upon the recurrence and duration of the catamenia; as well as by the part, at this time, feeling more swollen and hotter, with increased tenderness, and attended with throbbing, lancinating pains. Positive evidence, however, is wanting, to prove the correctness of this inference.

(The white mucous discharges depend upon a congestion of the mucous membrane of the vagina; whilst the presence of purulent fluid, in greater or less abundance, indicates the existence of inflammatory action in the same part; the thin discharges being the product of chronic inflammation of the vagina. The peculiar odour, sometimes added to these discharges, depends upon the glands at the entrance of the vagina being implicated in the inflammatory action.)

(2) *Uterine discharges*, which comprehend :—

(a) A clear, perfectly transparent, glary mucous, of a consistence and appearance very similar to that of white of egg. When examined under the microscope, the only substances met with are mucous globules. It is secreted by the glands, among the arbor vitæ, in the cavity of the neck of the uterus, from which glands I have frequently pressed it, when examining the uterus after death.

(b) A more or less opaque glary mucus, of rather firmer consistence than the former. This is likewise the product of the glands in the cavity of the neck of the uterus, perhaps somewhat modified by inflammatory action, and mixed with a varying amount of pus globules.

(c) Blood.—I am fully aware that blood may be effused from various parts of the urinary and generative organs, as well as from the uterus, and, escaping by the vagina, constitute a discharge. Yet it forms no part of the present inquiry to indicate the various situations from which this blood may issue, and the means of diagnosis as to the seat of the effusion. However, in the very large majority of cases, wherein a discharge of blood, distinct from the catamenial fluid, occurs during functional diseases of the uterus, that blood comes from some part of this organ. It may be excreted as nearly pure fluid blood, or blood more or less coagulated or mixed with threads of fibrine, or it may descend into the vagina, become mixed with any of the vaginal discharges, and be excreted combined with them. I have never met with it intimately mixed with the glary white of egg mucus, from the uterine cervical glands. The presence of blood, as a discharge from the uterus, except at the catamenial period, indicates considerable structural alteration of the organ.

(d) In some affections of the uterus a purulent secretion is formed by the lining membrane of this organ, and I have seen this secretion escape from the os uteri during an examination with the speculum. But, when purulent fluid is secreted by, and escapes from, the interior of this organ, it is formed in too small a quantity to escape externally and to constitute a discharge, unless it becomes mixed with other secretions from the vagina during its passage along this canal. It, consequently, cannot of itself be said to constitute a discharge.

9A, Langham-place.

(To be continued.)

THE NEW ACT TO REGULATE THE SALE OF ARSENIC.—This Act, which received the Royal assent on the 5th inst., has been printed. There are six clauses and a schedule in the new law. The preamble declares that the unrestricted sale of arsenic facilitates the commission of crime; and the statute enacts that, on the sale of arsenic the particulars of sale are to be entered in a book by the seller, in the form set out in the schedule, containing the date of sale, the name and surname of the purchaser, his place of abode and occupation, the quantity sold, and the purpose for which it was required. The name of a witness and the seller's name, when a witness is to be present. No arsenic is to be sold to any person unknown, unless in the presence of a witness, and arsenic is not to be sold, except to a person of full age. It must be coloured, or if it would be unfit to the person, then not more than ten pounds are to be sold. For offending against the statute, a penalty of not more than 20*l.* by justices is to be imposed. The Act is not to prevent the sale of arsenic in medicine under a medical prescription. The term arsenic is to include all arsenicous compounds. The Act is now in full force. It is one step—and only one—in the right direction. We would fain hope that our Government will not stop here, but continue on the march. Carelessness and villainy have long had full sway; it is high time for reason, honesty, and justice to come into operation.

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LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

Monday,	June 16.—Statistical Society. *Subject*: — F. G. Nelson, Esq., "On the Mortality of Intemperate Lives." Eight o'Clock.
	Chemical Society. Eight o'Clock.
Tuesday,	June 17.—Linnean Society of London. Eight o'Clock.
	Horticultural Society. Three o'Clock.
Wednesday,	June 18.—Microscopical Society. Eight o'Clock.
	Ethnological Society. Eight o'Clock.
	Royal Botanic Society. Quarter to Four o'Clock.
Thursday,	June 19.—Royal Society. Half-past Eight o'Clock.

THE MEDICAL TIMES.

SATURDAY, JUNE 14.

HOMŒOPATHY AND ITS PROFESSORS.

In a recent Number, we published the resolutions of the Edinburgh College of Physicians against Homœopathy; and in our last we had a few words on the subject to say to Dr. Henderson. We have since received an Edinburgh newspaper, which contains an angry letter from the Professor of Pathology in that University, bearing unequivocal testimony to the soreness he feels as one of those pointed at in the resolutions. Of the resolutions of the College we highly approve, and we think, if the Professor had been well advised, he would have preserved silence. How does the case stand? The College, as its position not only entitles, but imperatively calls upon it to do, announces its conviction, that no medical man, consistently with his own honour, can hold any professional intercourse with homœopathic practitioners, and expresses its desire, that such of its Fellows as may have embraced Homœopathy will withdraw spontaneously from a body into which they gained admission by the profession of principles of medicine diametrically opposite to those in which, as Homœopathists, they have since avowed their belief.

Does the Professor deny the right of the College to express an opinion on a point so intimately connected with the very purpose of its institution? Does he think, because the College has winked at his apostacy for six or seven years, that he has obtained a prescriptive right to call himself a Fellow of a regular medical body, and yet to practise a charlatanical system of the kind which it was instituted to put down. The Profession has a right to ask the College, not why it now calls on Dr. Henderson to resign, but why it has so long delayed to take some step to remove the scandal brought upon regular medicine by the retention of the name of a notorious Homœopathist on the roll of a State College of Physicians. We know that something is said in defence of the College, but that something is far from satisfactory. It amounts, we believe, to this, that Dr. Henderson apostatised silently, and without any such public demonstration of his new tenets as could fix the attention of the College to his case; and that so long as he was permitted to remain a Professor in the University, merely to remove his name from the College roll, would have been a very ineffectual visitation of his offence. The weak point of this defence for the College is, that in these two respects no change whatever has taken place up to the present moment. The course, however, which the College has pursued, though not defensible on just grounds, is natural enough, and has at least the merit of forbearance and freedom from rashness. It winked at the great offender, Professor Henderson, trusting that his case would prove the sole instance of this kind of apostacy within its walls; but, on the sudden announcement, that a much less important person, one, however, who had been an office-bearer, and who held a testimonial as to the integrity with which he had discharged an important trust, had gone over to homœopathy, the College awoke from its dream of security, and unanimously passed, as a first step, the resolutions in question.

But the point in hand at present has less concern with what the College has done than with Professor Henderson's right to impugn its proceedings. Can he claim a verdict from the Profession that he is not in a false position? The question is, not whether a man may practise homœopathy without imputation on his honesty, but whether the opposition between regular medicine and homœopathy be such as to deprive a man of all just title to retain, after he has become a convert to homœopathy, a position acquired by the profession of his adherence to regular medicine. Of the amount of opposition between legitimate medicine and the dogmas of homœopathy no stronger proof can be asked, than that which is to be found *passim* in works of homœopathy. In these, regular medicine is everywhere described as a system of contrivances to shorten human life; it is, according to homœopathic authorities, legalised murder—secret assassination countenanced by the State. Here, then, is the inconsistency of Professor Henderson's position: he professes homœopathy, which profession implies that the Edinburgh College of Physicians, with hardly an exception besides himself, is a body of assassins; and yet he is angry because this body of assassins invites him to separate himself from them,—but from whom, in his estimation? Why, if he speak honestly, from a crew little better than a detachment let loose from Pandemonium to ravage the earth!

But perhaps the Professor will say, that he does not rate the evils of regular practice so high as some of his brethren. We nevertheless pronounce him to be in a false position. He was elected a Fellow of the College of Physicians, and subsequently Professor of Pathology, by two separate bodies of electors, on the express understanding, that the views which he held were such as regular medicine recognises; and now his views are so far removed from those of regular medicine, that he was doubtless compelled on this occasion to have recourse to so unprofessional a channel of communication with the public as a newspaper, because no medical periodical, without loss of caste, could countenance his sentiments. Yet he seeks to retain his position in the College of Physicians, and in the University of Edinburgh, notwithstanding that he is no longer the man he professed to be at the time of the two elections; that is, no longer a *bonâ fide* participator in the great principles of regular medicine. Surely on those two occasions there was an implied pledge to those great principles of as binding obligation, in the opinion of a man of honour, as if his profession of them had been confirmed by the solemnity of an oath. It is of no avail for Dr. Henderson's justification, to argue in behalf of the correctness of his adopted creed; there is a simple question before us—Is a man of honour, by the usage of England, whatever be the latitude taken in Scotland, entitled to keep a position which he has obtained under a distinct condition, after he has made up his mind to refuse compliance with that condition? Fortunately, it is a kind of case not new to the public mind in the United Kingdom; it is one which the usage of Parliament makes familiar to all. No man of honour keeps his seat when he has been

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cause to depart from those principles on which he was returned by the constituency. The late Sir Robert Peel resigned his seat for Oxford when he changed his views as to Catholic Emancipation. No doubt he stood again; but was he successful? Let Professor Henderson resign his seat in the Edinburgh College of Physicians and his chair in the University of Edinburgh, and we will be the first to applaud his honesty. Till then he will not be able to avert the suspicion, that he prizes his position in the two institutions for that use to which "Professor" Holloway, "*et hoc genus omne*," have found the newspapers so profitable.

In connexion with the above, we may here acknowledge the receipt from Mr. Ramsbotham, Huddersfield, of a copy of the *Halifax Guardian* of June 7th. Mr. Ramsbotham's itching for notoriety seems to be so inveterate, that he prefers to give publicity to his own unrivaled impudence rather than humbly to retire from before the Profession. Mr. Ramsbotham does "not consider himself in the slightest degree irregular in practising Homœopathy." He represents the question as simply one of larger or smaller doses, about which every man must exercise his own judgment. We can understand Mr. Ramsbotham's motives in uttering such sentiments to the people of Halifax; but we cannot comprehend the mental and moral obliquity which prompts him to send them to us. Does Mr. Ramsbotham really enjoy the exhibition of his own shame? He has embraced a system of medical doctrine and practice utterly opposed to that which is believed to be true by the Medical Profession. Both systems cannot be true. That which is wrong is doing infinite harm. His system is "repudiated" by those corporate bodies which have been appointed to protect the public against ignorant or (what is much worse) dishonest practitioners. There is not a medical corporation in the United Kingdom that would admit to examination, or otherwise sanction, a practitioner of Homœopathy. Mr. Ramsbotham is aware of this. He knows, likewise, that every medical man is aware of it. If that which is "repudiated" by every recognised authority be not "irregular," what is irregular? Moreover, Homœopathy cannot be made popular without the use of means which honourable professional men are not permitted to employ. In our Editorial Article of the third of May we enumerated, from actual observation, a few, and but a few, of the means which are in favour with Homœopaths. Are men who adopt such expedients to be deemed regular or irregular members of a Profession? Ought they to be received as brethren, or treated as "aliens?" Did Mr. Ramsbotham ever adopt any of those practices which are so much in vogue among his new allies? If he did, we recommend him to keep to the company of those whose charlatanry he has copied and sanctioned, and not to obtrude himself upon the society of gentlemen who can do no less than repudiate both him and them. Mr. Ramsbotham parades the fact, that he possesses a medical diploma, as if he thought that no subsequent conduct could make a member of the College of Surgeons an irregular Practitioner. A man cannot become a member of the College of Surgeons without professing his belief in certain doctrines received by the examiners as true. He subsequently abandons these doctrines, declares them to be pernicious, and a grand source of suffering and death to his fellow-men; but he does not think that this conduct constitutes him an irregular member, nor that it deprives him of any part of his title to the credit and privileges which his membership confers. If Mr. Ramsbotham entered into partnership with Morison, the Hygeist, or "Professor" Holloway, we presume that, under colour of his diploma, he would still deem himself a "regular" Practitioner; and, perhaps, he might some day again tell the people of Halifax "that he had that morning to learn, *for the first time*," a fact which had been long familiar to every one, and which every one imagined was familiar to himself,—that he had "become an alien to his Profession." We recommend Mr. Ramsbotham to crucify his strong lingering affection for brethren of whom he thinks so meanly. It would be more manly and more honest to "repudiate," than to cling with such tenacious regard to the society of men who, he may feel perfectly assured, will not fail, upon all suitable occasions, to repudiate him.

Mr. Ramsbotham's affection for Allopathic Practitioners will be the ruin of him. We can unite in his admiration of Dr. Kenny's "gallant stand" for Allopathy at Halifax. The Mayor of that hot-bed of quackery called a meeting, by circular, for the purpose of "conferring with the medical gentlemen of Halifax, and with a few other friends," upon the propriety of establishing a House of Recovery. Finding the name of Mr. Ramsbotham in the "Directory" as a medical man, the Mayor sent him a circular. Mr. Ramsbotham, instead of acting upon his knowledge that the Mayor's want of professional information had led him into a mistake, accepted the invitation and attended the meeting as a medical man. Dr. Kenny protested against his presence there, and explained that the medical men were summoned in their professional capacity, and for a professional purpose, and that he could not act professionally with a Homœopath. He read the resolutions of the College of Physicians in Edinburgh, to which he belonged, and declared that he felt bound to pay respect to them. We give Dr. Kenny credit for his decision. Unlike Mr. Ramsbotham, he does not choose one body and hanker after another. He is an outspoken Allopath; he repudiates Mr. Ramsbotham, and will not be associated with him. We wish we could say the same of all our brethren.

THE GREAT EXHIBITION.

OBJECTS CONNECTED WITH THE THEORY AND PRACTICE OF MEDICINE AND SURGERY.

[FIFTH NOTICE.]

Mr. Bent (No. 89) exhibits a specimen of crystallised carbonate of magnesia. The salt is obtained in a crystalline form by passing a current of carbonic acid through a mixture of freshly precipitated carbonate and water. The magnesia in this case combines with an additional equivalent of carbonic acid, which dissolves in the water and forms Sir James Murray's fluid magnesia, which is simply a solution of the bicarbonate. When this solution is allowed to evaporate spontaneously, one equivalent of the carbonic acid escapes, and the carbonate crystallizes in hexagonal prisms with flat summits. The crystals have the composition (MgO, CO^2) + 3 HO. By solution in water they are resolved into bicarbonate, which dissolves, and a salt containing less carbonic acid remains as a white insoluble matter. This salt differs from the common carbonate of magnesia of the shops, which is a compound of carbonate and hydrate of magnesia, consisting of three equivalents of carbonate combined with one of the hydrate and some water; or, as other chemists believe, a subcarbonate of magnesia. The other specimens illustrate the preparation of cantharidine, the active principle of the blistering fly. These are specimens of the insect, of cantharidine in granular and acicular crystals; the same substance fused and cast into sticks, like those of nitrate of silver, a solution for blistering, and three specimens of what are said to be compounds of cantharidine with potass, soda, and lead. They are all very white and pure.

Mr. Lamplough (No. 113) has a few chemical specimens, the chief of which are what he terms "pyretic salts." These are asserted to be an artificial mixture of salts, identical in composition with the salts contained in the blood, and

intended for internal exhibition where there is reason to think that its saline constituents are deficient. These preparations were introduced during the recent epidemic of cholera as remedial agents in that formidable disease. The other specimens are, sulphate of magnesia in rather large prisms, good crystals of sulphate of iron, and a crystal of the eternally recurring ferrocyanide of potassium.

Davy, Macmurdo, and Co. (No. 75) have a large case, containing a very fine collection of pharmaceutical and chemical preparations. These consist of binoxalate of potass in massive but irregular crystals, with several specimens of oxalic acid in moderately large prisms. A mass of potassio-tartrate of antimony, and separate crystals of the same salts in fine octohedra and short quadrangular prisms, terminated at each end by pyramids. Some picked crystals of citric acid, which are, however, not so large or perfect as some of those exhibited by other chemists. A specimen of chloride of barium, in very large tables. The series of mercurial preparations is excellent. Calomel, or chloride of mercury, is shown in its ordinary form of fine powder, in brilliant fibrous masses with a yellowish brown tinge, and in small square prisms. The bichloride in long and large prismatic crystals, and also in fibrous masses; the biniodide as a scarlet powder, and in scarlet crystalline scales, prepared by sublimation, and the yellow sub-sulphate of mercury, commonly known as Turbith Mineral. Iodide of lead in the usual golden yellow scales. Iodide of arsenic in brilliant red scales. There is also a beautiful specimen of crystallized nitrate of silver, in magnificent square tables. Sulphate of soda in large but irregular crystalline masses. Several beautiful specimens of benzoic acid. Specimens of glycerine from olive oil, almost colourless, and from tallow, somewhat coloured. Also a series of specimens illustrating some of the products of the distillation of wood, among which are crude and purified wood-naphtha, or pyroxylic spirit; a liquid separated from the former by distillation, having a specific gravity 0.909, and boiling at 130° Fahr.; and acetone or pyroacetic spirit, obtained by the dry distillation of an alkaline acetate. This liquid belongs to the acetyle series. The collection does great credit to the exhibitors for the care and expense which has evidently been employed in preparing so large and so beautiful a series of pharmaceutical and chemical compounds.

Messrs. Huskisson exhibit a mass of crystals, labelled "Bicarbonate of Soda." These have the same form as the common carbonate, effloresce like them, and we very much doubt whether analysis would not prove that these chemists are in error, and that they have obtained the common carbonate by the evaporation of a solution of the bicarbonate of soda, which is decomposed by evaporation, even at a gentle heat.

Mr. Kane, Dublin, (41) sends specimens of bleaching-powder, (chloride of lime,) very white and dry, and what is commercially termed salt cake, an impure form of sulphate of soda.

Mr. Shelling exhibits Fachingen, Seltzer, and other mineral waters.

Among other specimens is the mineral water of Tenbury, Worcestershire, remarkable for the considerable quantity of bromine it contains. This is evidently the product of a brine-spring, from the large proportion of chloride of sodium associated with the usual salts of sea-water. Each gallon, according to the analysis of Dr. Ure, contains 16·2 grains of bromide of sodium. The specimens exhibited are a bottle containing the water in its natural condition, another after having been treated with chlorine, showing the orange tint of the liberated bromine, the separated bromine, and the salts obtained by evaporation of the water.

Near to the above is an enormous mass of Rochelle salt, or tartrate of potash and soda; the crystals are very large, —some of them opaque, others perfectly transparent.

Messrs. Fox and Barrington, of Manchester, exhibit a number of specimens of chemical products, which are more of a manufacturing than of a pharmaceutical character. Among them are the salt cake, or sulphate of soda, obtained in one of the steps of the manufacture of carbonate of soda; soda-ash, the impure carbonate of soda, which, however, is very white. Barilla, the impure carbonate of soda, obtained by the incineration of sea-weeds, imported chiefly from Spain; a very good specimen of bleaching powder, (chloride of lime); bisulphate of soda, in imperfect crystals, and good specimens of chloride and nitrate of copper.

We now arrive at, perhaps, the most beautiful series of salts in the whole collection, prepared by Mr. Barnes, in the laboratory of Messrs. Savory and Moore. The collection consists of not less than nineteen salts of valerianic acid. This acid is naturally contained in the volatile oil obtained by distillation of the valerian root, in very small proportions, and some of its salts, the valerianates of zinc and of quinine, have been employed in medicine in those cases in which valerian and tonics are usually prescribed. The same acid, however, may be obtained artificially by the indirect oxidation of the fusel-oil separated from crude spirits in the process of rectification, which is the cause of the whisky-flavour of grain spirit before rectification. The fusel-oil is heated with a large proportion of caustic potass, when hydrogen is disengaged and valerianate of potass remains. The acid is easily separated from the valerianate of potass by distillation with sulphuric acid. This is a striking example of the artificial formation of an acid naturally formed by the process of vegetation in the officinal valerian. It has the same composition and properties as the latter, and may be advantageously substituted for it in all pharmaceutical preparations. The valerianates comprised in this series were prepared with the artificial acid. The first in the series is a specimen of the pure acid, a colourless, oily fluid, having a peculiar and disagreeable odour; followed by valerianate of potass, in large, almost colourless, crystals, with no distinct crystalline form; valerianate of soda, in masses composed of small crystals; valerianate of ammonia, also in crystals; valerianate of baryta and of strontia, also crystalline; the salt of lime in crystalline scales; of alumina, as a white; of chromium, as a grey; of nickel, as a green; and of cobalt, as a beautiful peach-coloured powder; valerianate of manganese in fine rose-coloured scales; the persalt of iron, orange-yellow, and pulverulent; that of zinc in a granular crystalline powder; of silver as a grey, of mercury and bismuth as white powders; of copper, blue and pulverulent; of cadmium, in white crystalline scales; of antimony, white and pulverulent; of quinine, in crystals of no definite form; and of morphia, in fine tufts of acicular crystals. Valerianate of the oxide of ethyle, more generally known as valerianic ether, as a colourless fluid. We must award a full meed of praise to Mr. Barnes, for the great labour bestowed by him on the preparation of this large series of compounds, many of which have certainly not been hitherto prepared and their properties investigated, and to the liberality of his employers, Messrs. Savory and Moore, who have gone to no inconsiderable expense in furtherance of this object.

GENERAL CORRESPONDENCE.

THE APPARATUS FOR PRODUCING ARTIFICIAL RESPIRATION.

[To the Editor of the Medical Times.]

Sir,—I observe in your Journal of April 26, 1851, p. 468, a diagram and description of an apparatus for producing artificial respiration; and I find also that the model itself is placed in the Great Exhibition. In both instances Mr. Small, Boston, (Lincolnshire,)(a), is named as the inventor.

Under these circumstances I beg leave to state that, in 1844, this identical invention was made public by myself. In November, 1842, I forwarded to the Royal Humane Society an "Essay on the subject of Suspended Animation," in which I described my apparatus under the name "pneumatic chest," and believed the idea to be original. On receiving my essay back from the Society, I read it, February 19, 1844, at a meeting of the Liverpool Literary and Philosophical Society, and showed my model in action on a rabbit, a portion of human lung, &c. This was well reported in one of the local newspapers, and excited attention. On March 7, 1844, I gave the same demonstration of the invention to the Medical Society of Liverpool, and a discussion of its probable utility took place. The model is now beside me, and has been frequently shown to my friends.

It is quite possible that the same idea may have independently suggested itself to myself and to Mr. Small, or equally possible that, if heard of by the latter, so long ago as 1844, it may have lain dormant or forgotten until the present time. I do not wish to

(a Erroneously *Lancashire*, in *Medical Times*.

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admit the idea of plagiarism in the case, and shall be happy, if the attention of the Profession and the public be now directed to the subject with any useful result. I am, &c.

ALFRED HIGGINSON,
Consulting Surgeon to the Liverpool Dispensaries.

1, Mornington-terrace, Liverpool.

THE KEY-TSI-SING, OR CHINESE EMMENAGOGUE.

[To the Editor of the Medical Times.]

SIR,—May I request the favour of your inserting another case of the successful use of the above remedy, selected from numerous others, and forwarded to me by Dr. Moore, of Hackney.

I am, &c. E. WILLIAMS, M.D.

15, Upper Clifton-street, Finsbury.

[Copy.]

Case.—Miss S., of Romford, aged 19, placed herself under my care, January 3, 1850, for general derangement of the chylopoietic organs, violent headache, and epistaxis; she stated she had had numerous fits for the last six months, which were somewhat relieved by the bleeding of the nose; and that she had not menstruated for eight months, when she took cold from getting her feet wet.

Her appearance was that of a stout, ruddy country-girl, and her pulse was full and thumpy, her tongue loaded, and the papillæ large and spongy, with the conjunctivæ injected and of a yellowish cast. She stated that she had been at different times under the care of two very respectable practitioners in that locality, who had cupped her on the lower part of the back twice; that she had had several mustard cataplasms on the loins and on the inside of the thighs, with foot and hip baths frequently, as well as medicines, with no advantage; and that, previously and since, she had taken large quantities of aloetic and steel medicines by domestic recommendation; but that the epistaxis, headache, and fits continued, with rather an increased severity than otherwise.

In this state of things I adopted the free abstraction of blood from the arm, dry cupping along the course of the spine, with the cold shower-bath three times a week, and the hip-bath on alternate nights, with gentle purgatives and alterative medicines, with no other advantage than an improvement in the state of the tongue and digestive organs; the fits continued severe, the headache very acute, but the epistaxis was somewhat diminished. She now abstained from medical aid until July, when she consulted Dr. Conquest, but without any perceptible advantage. She afterwards applied to Drs. Ramsbottom, Waller, and Bull, at various times, without gaining the desired result, until November, when she ceased altogether from taking medicine, and went on a visit to the south of England.

On her return to London, in the latter part of December, finding the fits recur in frequency and intensity, and, in addition to the epistaxis, that vomiting of dark, bloody matter from the stomach came on, with occasionally a quantity of bright, clear blood, she again consulted me, and I found her appearance much altered; she was now sallow, flabby, and unhealthy-looking, uncollected in her manner, forgetful, and irritable; so much so, that her friends anticipated that insanity was rapidly progressing, and were, consequently, in a very anxious state about her.

Finding that nearly two years had elapsed since menstruation had ceased, and that the symptoms were referable to that function being suspended, and seeing a case reported by Dr. White, of Winchester, somewhat analogous, in the *Medical Times* of Dec. 21st, in which the key-tsi-sing recommended by you had been productive of advantage, I proposed to my patient that she should try it, as all other remedies had failed.

On the 2nd of January she commenced taking the key-tsi-sing (according to your directions, so kindly forwarded to me) until the 12th, but no result followed, except slight vomiting and purging; when, finding it caused some distress, I discontinued it until the 15th. On the following day, she complained of a darting pain in the lumbar region, with a sense of weight around the hips and over the pubis. On the 18th, there was a small quantity of blood passed with the fæces; and I again discontinued its use until the 20th, when I advised its continuance in diminished doses. On the 21st, the catamenia appeared scantily, mixed with shreds of membranous matter; the discharge gradually increased in quantity and colour until the 26th, when it ceased gradually, and disappeared on the 29th.

On the 18th of February, she again visited me, and stated, that she had two fits only since the 29th of January, and they were less severe than formerly. I prescribed the key-tsi-sing in daily doses, with cold applications to the head, and a mild aloetic purge occasionally, until the 24th, when the catamenia appeared normally until the 27th; after which I recommended the daily use of quinine and iron. Up to this time she has gone on improving in health, with the catamenial flow at the proper periods, nor has she had a fit since.

With every feeling of gratitude for the advantages derived by my patient, and for your courtesy, believe me to remain,

Yours, &c.

EDWARD MOORE, M.D.

INDIAN REMEDY FOR OPHTHALMIA.

[To the Editor of the Medical Times.]

SIR,—I take the liberty of forwarding to you a method of cure adopted by the native doctors of India, in cases of catarrhal ophthalmia. It is known in India as the "country remedy," and I am not aware that the Medical Profession in this country has been made acquainted with it. It is only useful in mild forms of the disease, and in such cases I have employed it, both at home and abroad, with excellent effect.

I will not offer an opinion on the action of the remedy, but I consider it peculiarly applicable to cases of slight conjunctivitis affecting delicate subjects, where confinement and lowering treatment cannot be well borne. The advantage it possesses over the ordinary treatment is, that the cure is usually more speedy, and that nothing, beyond perhaps a laxative, is required.

The paste should be applied immediately on being prepared, as it soon becomes hard, and great care should be taken in washing it off, that none of it enters the eye.

Should you consider this worthy of a place in your valuable Journal, I have much pleasure in forwarding it for insertion.

I am, &c. JOHN TAIT,
Assist.-Surg. Madras Retired List
Dunse, Berwickshire. H.E.I.C.S.

Take of fresh burnt alum, reduced to a fine powder, sufficient to make a thick paste with the newly expressed juice of one lemon. After being well mixed, let the affected eye be closed, and apply the paste freely over the whole surface of the upper and lower eyelids. The eye is to be kept shut during the application of the remedy, which should remain for twelve hours, and be washed off with cold water. It may be re-applied, if necessary.

A decided amendment usually follows the employment of the remedy.

REPORTS OF SOCIETIES.

MEDICAL SOCIETY OF LONDON.

DR. MURPHY, President, in the Chair.

SWALLOWING COPPER COINS.

Dr. Webster related the case of a girl five years old, who swallowed a copper token, the size of a farthing, which remained nearly two days in the alimentary canal without producing any serious consequences. The accident not having been discovered till upwards of eight hours had elapsed, it seemed injudicious, in Dr. Webster's opinion, to give an emetic, which he at first thought of, in order to produce vomiting, and thereby eject the foreign body. Thinking the coin might, by that time, have passed through the pylorus, aloes and rhubarb were prescribed, followed by castor-oil; strict injunctions being given, at the same time, to avoid everything acid, whilst bland and liquid food only was permitted. Although free purging was produced, no beneficial effect followed; whereupon several doses of senna and salts were ordered, and the same regimen continued. By this treatment, at the end of forty-four hours, the piece of copper then shown to the Fellows was fortunately expelled from the rectum, without having produced any untoward symptom, when the patient soon became convalescent. Notwithstanding there was nothing very remarkable in the case brought under the Society's notice, still, having terminated favourably, he (Dr. Webster) thought it of sufficient interest to merit record, especially as similar accidents occasionally occurred having a fatal termination. Besides, different authors, to whom reference could

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be made, if necessary, in support of the above opinion, the last weekly report of the Registrar-General was mentioned, seeing a somewhat analogous instance had been met with at Crown-square, Camberwell, which proved fatal. The subject was a labourer's daughter, aged three years, "who died of mortification of the bowels by metallic poison, from swallowing a farthing accidentally."(a) The result recorded in this case not only indicated the danger produced by copper when swallowed, but made the narrow escape of the other juvenile patient the more gratifying.

Dr. Ogier Ward had met with two cases, where small copper coins had been swallowed by children, but in neither instance had the coin passed lower than the œsophagus. In one case the halfpenny, which had been retained in the œsophagus for eight months, was found, when ejected, to be so much corroded, that neither the date nor any other mark upon it could be distinguished. The foreign body in the second case was removed by him from the œsophagus, with the aid of the probang. There was considerable insalivation in both patients.

Mr. Dendy had seen numerous cases where foreign bodies, such as beads, pebbles, coins, etc., had been swallowed by children, and subsequently passed; but in no one instance did he ever see reason to believe that injurious consequences followed the passage of copper coins into the alimentary canal, nor indeed should he, *à priori*, have expected such symptoms to occur. Patients seldom complain of any feelings of discomfort or pain after such an accident, and a dose or two of castor-oil will generally suffice to get rid of the foreign body.

RECAMIER'S GALVANO-ELECTRIC CATAPLASM.

Dr. Tilt read a communication on the Galvanic Cataplasms of Professor Recamier. After some preliminary observations, Dr. Tilt stated, that he wished to draw the attention of the Society to that particular mode of the employment of electricity in which continued currents are generated by the contact of metals, by which means a large quantity of electricity is obtained at a low tension. He observed that there are many inventions constructed on that principle, but they are all ponderous, complicated machines, liable to get out of order, and therefore requiring the guardianship of some one who well understands their action. The feelings of awe, too, with which the patient generally beholds them interfere frequently with the effects desired to be obtained. He therefore was of opinion that a milder application of the same agency, by permitting its prolonged employment, would enable more good to be effected, than by the previously employed energetic modes of application; and in this idea he is supported by Dr. Golding Bird, who, in speaking of the therapeutical influence of electricity, says, "I was very sanguine that the current excited by a single pair of zinc and silver plates, similar to those we employ to excite contraction in a frog, would be found of great value in practice." But Dr. Golding Bird thought that, to obtain an action, it was necessary to remove the cuticle from the skin, and then he found that the more oxidisable of the two metals produced sloughing of the skin, or, in other words, the electrical moxa of which he has shown the utility. Previously to this, Mr. Spencer Wells had ascertained that the removal of the cuticle is not necessary, and that by applying to the skin, previously moistened by diluted vinegar, two plates, one of silver and the other of zinc, connected by a silver wire, a marked electrical action was obtained, disordered functions of a particular nerve were restored to to their normal state, and ulcerated surfaces were rapidly healed. Passing to the immediate object of the communication, Dr. Tilt mentioned that for many years Professor Recamier has made use of electricity by means of the energetic apparatus usually employed, and that, a few months ago, he presented to the French Académie de Médecine some remarks on a new mode of applying electricity by what he called galvanic cataplasms, consisting of filings of copper and zinc enveloped in cotton wool; that lately he had improved on this rather clumsy contrivance, and had sent Dr. Tilt the little apparatus he had the honour of submitting to the inspection of the Fellows of the Society; in explaining which Dr. Tilt said, each of the cataplasms or discs is a galvanic pile, composed of twelve couples. The couple is formed by a riband of zinc and copper, and each couple is separated by a piece of flannel. On the coloured side is cotton wool; on the other a piece of gutta percha tissue to insulate the apparatus. The only difference between the two discs is, that in the pink the copper stands first, while the zinc comes first in the blue. The electrical force generated in the apparatus finds vent through the copper rings, to which the insulated copper wire can be attached, when the more energetic of the two cataplasms is required. In some people the acrid perspiration of the skin is sufficient to increase the intensity of the electric action; but more active effects are produced by wetting the flannels with diluted vinegar, or a weak solution of common salt, as is proved by the action of the apparatus on the electrometer. An unusual sensation of warmth is felt when *one* of these cataplasms is tightly bound to the skin; a pricking sensation is felt, and the skin becomes red, when *two*, connected by the wire, are applied to the same surface, but at some distance from one another; and a stronger effect is produced when one disc is placed on the seat of pain and another on the spine. The apparatus (says Dr. Tilt) may, without inconvenience, be worn day and night, though, in ordinary cases, its application is only made at night; and, as to its effect in disease, he remarks, that in the hands of Professor Recamier, it once brought on menstruation before the usual time, and he therefore intentionally applied it for that purpose, and with success, in cases of chlorotic amenorrhœa; Professor Recamier is also trying it in such cases of sterility as cannot be accounted for by any disease, but which seem to depend on defective ovarian action; and, among other cases, on an illustrious lady whose barrenness menaces to extinguish one of the eldest dynasties of Europe; as well as on a Russian princess, also anxious for a family, in whom the first effect produced was, that menstruation, which formerly lasted but thirty-six hours, was prolonged to six days; but, whether sterility will be cured by it time alone can show. Dr. Tilt is of opinion that it might be useful in curing some of those tedious cases of chlorosis, where a girl eats heartily, takes plenty of sleep and exercise, has nothing on her mind, but still derives but little benefit from either food or treatment. He thinks that this mild electrication may also take effect on the ganglionic nervous system, and give a spur to defective nutrition; he has therefore lately applied one of the discs to the epigastric region of a patient, while the other was applied to the spine. Dr. Tilt added, that Professor Recamier has used these galvanic cataplasms with marked success in the treatment of rheumatic and nervous pains, in a case of obstinate constipation, in asthma; and a patient suffering from angina pectoris was benefited, but not cured by their application. Dr. Massé and several other medical men in Paris find them successful in similar cases, as is detailed in the pamphlet Dr. Tilt begged to offer to the Society; and in conclusion, he said that he had only stated the results obtained by his venerable teacher; but had this not been the last meeting of the Society for the present session, he would have tested the utility of the apparatus by his own observations, before drawing the attention of the Fellows to the subject, adding, that if, on account of the harmless appearance of the apparatus any should be tempted to consider it ineffectual, he referred them to an authority already quoted, who says, "From what I have seen, I am fully convinced, that if a feeble current were kept up for a long time, in certain forms of paralysis, (care being taken that the positive fluid traverses the limb in the direction of the nerves,) it would prove the most important mode of applying the remedy with success."

THE TREATMENT OF FEBRILE AND OTHER DISORDERS THROUGH THE MEDIUM OF THE SKIN.

Mr. W. Taylor read a paper "On the Treatment of Febrile and other Disorders through the Medium of the Cutaneous Surface." The author began by alluding to the great mortality of fever, typhus, scarlatina, and measles in this country, which called for serious consideration. He then entered into a history of several such cases, in which he had been enabled to trace out that the agent which contributed greatly to the recovery of such patients was lardaceous inunction. It allayed the dryness of the skin, and promoted perspiration, producing sleep. He next entered largely on the subject of the function of the skin, and the noxious effects resulting from the arrest of its secretion upon the animal economy, and the benefit produced in the course of many diseases by the restoration of that function. He afterwards drew a comparison between cold affusion or water sponging and lardaceous inunction; the first being, in most cases, but temporary, and not unfrequently attended by danger. He then gave the history of cases of measles, fever, and scarlatina, illustrating the happy results of inunction; and concluded by strongly recommending this course of practice, not to supersede other means, but as one of the most powerful adjuvants he was acquainted with.

(a) The death, in this instance, was evidently caused, not by metallic poison from the acids of the alimentary canal acting on the copper coin; but from its inducing obstruction of the bowels, followed by mortification. There have been many cases published, in which copper coins have remained a longer or shorter period in the bowels without injury. The proper treatment consists in the exhibition of mild aperients, active cathartics and emetics being especially avoided. Such cases are in general unattended with danger.—*Rep.*

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Dr. Routh, Dr. Hutchinson, Dr. Ryan, Dr. Crisp, Mr. Druitt, Mr. Dendy, Mr. Chippendale, Mr. Richardson, and other Fellows, took part in the discussion that followed the reading of the paper. Mr. Richardson referred to Celsus, to show that the proceeding recommended by Mr. Taylor was not novel. Mr. Chippendale considered that the actual benefit derived was owing to the friction, and he thought that an absorbent powder would be more serviceable. Dr. Routh had tried the plan extensively and successfully, not neglecting, however, the usual remedies necessary in the treatment of fever. The effect of the inunction in lowering heat of skin was extraordinary. The heated harsh skin of fever was rendered cool and soft in three hours by Mr. Taylor's plan of inunction. Delirium and restlessness ceased under its use, and the patient slept quietly and with relief. It acted more beneficially than an opiate. He could not understand how friction could lessen the heat of skin. Convalescence occurred earlier, and was more marked, when inunction with lard was had recourse to. Mr. Druitt alluded to the necessity of attending to the secretions and excretions in these cases. Inunction ought not to be employed alone. Cleanliness was of especial service. Mr. Dendy regretted the paper had been read. He objected to inunction being put forward as a panacea in all cases of fever, when it was evident it was merely an adjuvant. He jokingly expressed his regret that the evening should have been occupied by a *despatch from Greece*. He considered inunction would tend to block up the pores of the skin, whereas in fever they required to be relieved. The oily matter would only prove a nidus for the accumulation of dust, and he thought such appliances to the skin were generally injurious. Mr. Taylor, in reply, gave a *résumé* of the principal opinions stated in his paper.

This being the last meeting for the session 1850-51, Dr. Murphy, the President, addressed the Fellows present briefly, but to the purpose. He spoke of the progress made during the past winter and spring, and urged them to renewed endeavours to forward the interests and welfare of the Society. Above all it was advisable that papers to be read at the meetings should be sent in as soon as possible; and he advised them to employ themselves during the recess in preparing *pabulum* for the forthcoming session.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 6th inst.:—

Cock, Frederick, Appledore, Kent.
Davies, Henry May, Hastings, Sussex.
Roberts, Charles West, Bristol.
Wall, Alfred, Stratford-on-Avon, Warwickshire.

At the same meeting of the Court, Mr. Robert Pennington Remus Sparrow passed his examination for Naval Surgeon. This gentleman had previously been admitted a member of the College, his diploma bearing date July 20, 1846.

College Conversazione.—The first of the series of evening meetings which the President and Council of the Royal College of Surgeons propose giving to their members, took place on Wednesday last, on which occasion the whole of the establishment was thrown open (with the exception of the Museum, at present too crowded to admit considerable numbers) for the reception of visiters, who commenced arriving at eight o'clock. After partaking refreshments, they were ushered into the Library, which was brilliantly lighted for the occasion; here they were received by the officers of the College, and with the distinguished foreign and British visiters introduced to the President and Council. At nine o'clock Professor Owen delivered an interesting lecture in the Theatre, on Metamorphoses and Metagenesis, after which the visiters re-assembled in the Library, where Messrs. Quekett and Stone entertained them,—the former with some of the more interesting of the unrivalled collection of microscopic objects in the possession of the College, many of which were prepared by Hewson, Todd of Brighton, and the larger portion by Mr. Quekett, whose European reputation as the first microscopist of the day is freely admitted; this gentleman entertained a large portion of the audience by exhibiting the circulation in the branchiæ of the newt, which justly excited great admiration. Mr. Stone's collection of autographs and portraits of those worthies who have contributed so largely to the advancement of medical and chirurgical knowledge were duly appreciated by so large a number of the visiters, that we should suggest the propriety in future of dispersing the collection around the room, similar to the microscopic demonstrations. The exquisite life-like representations of the humming birds, and birds of Australia, by Mr. Gould, also excited great admiration. M. Foucault's experiment, to show the rotation of the globe, was exhibited during the evening. Upwards of 300 visiters attended on this occasion, among whom we observed the President and several of the Fellows of the Royal College of Physicians, together with many continental *savans*. The general expression was, that these interesting reunions of the members of the Medical Profession and their scientific friends will tend greatly to strengthen that harmony which should always exist among members of a liberal profession. Pleasing as was the general aspect of the gathering, we must still protest against "men in buckram" presenting themselves in the Halls of the College of Surgeons—in high-lows and paletots, pardessus, ne plus ultras, Cantabs, and Albert morning coats, highly relieved by flash waistcoats and extensive party-coloured ties. The nether man, clothed in railway tweeds and trowsers of divers hues, is not in the evening dress of a gentleman. We trust our hint will be taken, and a more appropriate toilette cultivated for the next occasion.

Medical Appointments and Vacancies.—At the Northern Dispensary, Somers'-place West, Euston-square, the office of physician to the charity is vacant. The election will take place on the 16th of July next. Candidates must be Fellows or Licentiates of the College of Physicians. The surgeoncy to the St. Pancras Royal General Dispensary is vacant, by Mr. Haynes Walton's resignation. Mr. Arrowsmith is a candidate for the office. A Visiting Surgeon for the North District of St. Marylebone is wanted. Candidates must be M.R.C.S., and L.S.A.: salary, 60*l.* the first year, 70*l.* the second, and 80*l.* the third and subsequent years, with board, lodging, and washing. A Superintendent for the Joint County Lunatic Asylum, Abergavenny, is also wanted. He is to reside, and have the management of the whole establishment, subject to the magistrates' control. The Superintendent must be a duly qualified medical man, and must devote his whole time to the Institution. Salary, 250*l.* per annum, with furnished apartments, board, coals, and candles. Candidates who have been connected with asylums previously will, of course, be preferred.

Military Appointments.—1st Regt. Life Guards, Owen Wm. George, M.D., to be Assistant-Surgeon, vice Tardrew, promoted in the 2nd Regt. Life Guards.

University of Oxford.—The next examination for the degree of M.B. will take place on the 24th inst.

University of Cambridge.—At a congregation held on the 11th inst., the following degrees were granted:—M.B.—Septimus Gibbon, Clare-hall; Robert Martin, Caius College. Licentiate in Medicine.—Edward Burd, Caius College.

Obituary.—On the 5th inst., at Fulham, aged 33, Samuel Baker Rowland, Esq., late Surgeon to the Royal West India Mail steamer Tweed.—On the 21st March, at Cape Coast Castle, John Henry Smyth, M.D., Staff Assistant-Surgeon.

Royal Society.—The following members of the Medical Profession have been elected Fellows of the Royal Society: Thomas Snow Beck, M.D.; Mr. James Paget, and Augustus V. Waller, M.D.

The Royal Academy of Surgery, Madrid.—Dr. Jose Antonio Perez de la Flor has been here for some days past, as the representative of the Royal Academy of Surgery of Madrid, at the Great Exhibition. He brought letters of introduction to the principal officers of the Medical Societies in this Metropolis.

The Queen's College, Birmingham.—The Rev. Dr. Samuel Wilson Warneford has presented to his trustees, the Rev. Chancellor James T. Law, the Rev. Vaughan Thomas, B.D., and William Sands Cox, F.R.S., the munificent donation of 500*l.*, towards the completion of the east wing of the quadrangle. He has also augmented, to 4400*l.*, his endowment for the Professorship of Pastoral Theology, in addition to his former endowments of 2000*l.*, for the Wardenship and Lectures on Morals and Theology, 2000*l.* for the Chaplaincy of the College and the Queen's Hospital, and 3000*l.* endowments for Medical Scholarships, Medical Prizes, and a Resident Medical Tutor.

Sanitary Reform.—A very humble meeting was held last Wednesday, in a quiet corner of the city of London, which may finally lead to important results, as regards the sanitary condition of the Metropolis. This meeting—called a wardmote—was held in St. Michael's-alley, by the rate-payers of Cornhill-ward, to consider the best means whereby the locality might be cleansed by means of street-orderlies, as, through their instrumentality, the

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leading thoroughfares of the City are now kept so clean, as to be nearly free from mud and dust. Alderman Carter was in the chair, supported by the Deputies and leading Common-Councilmen; and all were unanimous in their approval of the method referred to. Indeed, this is not to be wondered at, since it is now shown, that, in a few of the streets in which the street-orderlies are engaged, no less than ten large cart-loads of actual horse-dung are daily collected, and this fæcal deposit has been clearly proved to be the chief ingredient of which mud and dust are composed. Under a hot sun, such large quantities of animal manure cannot fail to prove offensive to the public, and unfavourable to the salubrity of the localities in which they are permitted to remain. The remarkably clean state of Cornhill and Cheapside, after the recent wet weather, establishes the fact, that the streets *can* be kept free from mud and dust, at all seasons of the year, and that, in proportion as public thoroughfares are rendered *dry* and *clean*, the community frequenting them is less liable to colds, consumptive diseases, rheumatic and other affections. The meeting unanimously came to the conclusion, that the system of cleansing the streets by street-orderlies was generally approved of by the rate-payers, and well worthy of adoption; and they charged their Alderman and Common Councillors to exert their influence with the Commissioners of Sewers, so that the whole city of London might be cleansed in the same manner as early as possible.

Epidemiological Society.—At the ordinary meeting of this Society, held on Monday evening, the 2nd instant, Dr. Babington in the chair, Mr. R. H. Cooke read a paper "On the Epidemic Mental Diseases of Children," founded chiefly on Hecker's "Children's Pilgrimages" and "Sympathy." It commenced with an inquiry as to the propriety of applying the term "epidemic" to diseases of this class. The chief reason against it lay in the consent of the will, which was requisite to their production. The same objection, it was remarked, would lie against the application of any epithet of pathology to mental disorders. No medical observer of mental phenomena, however, would be disposed to grant to the will that freedom which may be claimed for it by the metaphysician, and the normal characteristic of childhood is the weakness of this self-determining faculty. At first wholly destitute of it, the infant is guided in its movements solely by instincts, and stimulants acting upon the reflex nerves. The first impulse to voluntary movement is the instinct of imitation. The first articulations of the child are thus learned, and are only subsequently associated with ideas. This imitative instinct continues strong during childhood and youth, but becomes now an impediment, not a stimulant, to the will. That this faculty should produce morbid results, it is necessary that, in the feelings or actions of the adults with whom the child is placed in communication, there be something morbid or overwrought. How widely such a feeling may re-act upon children, was remarkably shown in the 13th century during the era of the Crusades. The popular ardour for the recovery of the Holy Land was still strong, though restrained by the indisposition of the Governments. What the men could not do the children undertook. Almost simultaneously, children of all ranks, some girls among them, collected from all parts of Germany and France, and marched in procession to various seaports on the Mediterranean. Many perished by the way; most of those who reached the coast were sold into slavery. The number was estimated at more than 60,000. In the delusions respecting witchcraft, and similar commerce with the invisible world, which prevailed through Europe from the Reformation almost to our own day, the children participated. Some suffered death on their own confession of having familiar intercourse with Satan, and multitudes bore testimony, fatal because unquestioned, against those accused of such practices, swearing that they had been carried through the air by them, had seen their disguises and been privy to their secrets, and that they had been in various ways afflicted by them. Allusion was made to the well-known convulsive epidemic in the orphan house of Amsterdam, recorded and treated by Boerhaave. It was observed, that notwithstanding the general mental excitement of the last half century, and the marked tendency to belief in the supernatural, there was no record of any occurrence similar to those first described; the nearest approach to it in our times, was the attempt to enlist children in the advocacy of total abstinence. From extensive inquiries respecting the Orphan Asylums and the great educational institutions, there did not appear to be any prevalency of imitative convulsive disorders. These immunities were attributed to a better understanding of the position of children in society. It was suggested, that probably much of the epidemic constitution of the present time was due to repressed excitability. Confessedly it was more nervous than at any previously recorded epoch. Short of positive illness, there appeared to be an increasing asthenia during five or six years preceding the completion of physical development, apparently the result of exhaustion, and requiring much care, but commonly passing into full health and recruited energy. In conclusion, it was observed, that the office of the medical practitioner and of this Society, was not so much to cure these cases, as to direct the public attention to them, with a view to their prevention. The evil was in the hands of parents and preceptors. It was suggested, that in some cases, there was an undue call upon children for aid to religious objects. It was, however, a most difficult problem, how best to prepare the child to meet the excitement of the world. Probably, the chief thing to be supplied, was opportunity for bodily activity, combined with mental relaxation.

The Cholera in Jamaica.—Cholera still lingers in some parts of Jamaica. What are the Government Medical Missionaries doing? The disease is so malignant, that some of the sufferers die in two hours from the commencement of the attack.

The severity of the fever in Rio Janeiro has greatly abated, and the few new cases that occur are of a comparatively mild character. Cholera has re-appeared in Jamaica, and has also broken out in Cincinnati, U.S. The mortality in Jamaica from this fearful pestilence already exceeds 30,000.

Vapour Bath.—We have strongly to recommend,—and that from personal experience,—Mr. Nash's Portable Economical Vapour Bath,—a powerful and important hygienic remedy; and so combined with economy, that it comes within the power of all to possess. To parties travelling, in consequence of its portability, this vapour bath will be found exceedingly useful and convenient; only twelve inches high, it can be placed in the portmanteau, and persons enjoy a bath to the temperature of 120 degrees, with no other assistance than the spirit lamp. We think, also, that no family should be without this useful and simple apparatus. "The reservoir is to be filled two-thirds with boiling water; the lamp to have about half a gill of spirits of wine, lighted, and placed in the apparatus, under a cane-bottomed chair, and the vapour, as it issues from the boiler, is be six inches from the seat of the chair. The parties about taking the bath will undress, and be wrapped in a blanket; the cloak will then be thrown over, taking care that it is quite closed around the chair, so as to keep the whole of the vapour within; they will then sit down with their feet on a stool, for half-an-hour, or as long as they please."

M. Bourjeaud's Spinal and other Elastic Supporters have been brought to our notice. They are adapted to the waist, leg, and abdomen, and may be usefully employed as stays, or in varicose veins, and pendulous belly. They are composed of Indian-rubber, within silk or cotton coverings; they are easily washed, and being spirally woven, and without seams, they afford an equal and permanent pressure. They appear to deserve a trial, and we recommend them to the attention of the Profession.

DEATHS *in the Metropolis for the week ending Saturday, June 7, 1851.*

Causes of Death.	June 7				Sum of Ten Weeks.
	0	15	60	All Ages.	
All Causes	449	329	183	961	8635
Specified Causes	446	329	183	958	8576
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	161	28	18	207	1850
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	4	26	23	53	464
3. Tubercular Diseases.	63	128	6	197	1912
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	47	35	24	106	1090
5. Diseases of the Heart and Blood-vessels	2	24	11	37	252
6. Diseases of the Lungs, and of the other Organs of Respiration ...	89	35	37	161	973
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	27	21	9	57	550
8. Diseases of the Kidneys, &c. ...	...	9	8	17	90
9. Childbirth, Diseases of the Uterus	...	6	...	6	58
10. Rheumatism, Diseases of the Bones, Joints, &c.	2	4	...	6	64
11. Diseases of the Skin, Cellular Tissue, &c.	...	...	...	...	6
12. Malformations	2	...	...	2	27
13. Premature Birth and Debility ...	20	1	...	21	201
14. Atrophy	18	1	2	21	152
15. Age	...	...	37	37	469
16. Sudden	1	2	...	3	101
17. Violence, Privation, Cold, and Intemperance	10	9	8	27	265
Causes not Specified	3	...	...	3	59

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1.	Small-pox ...	16		Paralysis	17		Disease of Spleen ....
	Measles	39		Delirium Tremens	3	8.	Nephritis..... ...
	Scarlatina ...	15		Chorea.....	...		Nephria or Bright's Disease ... 5
	Hooping Cough	47		Epilepsy	3		Ischuria ....
	Croup	7		Tetanus	1		Diabetes 1
	Thrush.....	1		Insanity	1		Stone 1
	Diarrhœa ...	11		Convulsions	36		Cystitis 2
	Dysentery ...	4		Disease of Brain, &c.	13		Stricture of Urethra ... ...
	Cholera	...	5.	Pericarditis...	1		Disease of Kidneys, &c. 8
	Influenza ...	6		Aneurism ...	1	9.	Paramenia ... ...
	Purpura and Scurvy.....	1		Disease of Heart	35		Ovarian Dropsy..... ...
	Ague	...	6.	Laryngitis ...	7		Childbirth (see Metria) 3
	Remittent Fever	3		Bronchitis ...	64		Disease of Uterus, &c. 3
	Infantile Fever	2		Pleurisy	6	10.	Arthritis ....
	Typhus	46		Pneumonia...	71		Rheumatism 4
	Metria or Puerperal Fever	...		Asthma	9		Disease of Joints, &c. 2
	Rheumatic Fever	...		Disease of Lungs, &c.	4	11.	Carbuncle ... ...
	Erysipelas ...	7	7.	Teething	11		Phlegmon ... ...
	Syphilis	1		Quinsey	1		Disease of Skin, &c.... ...
	Noma or Canker.....	1		Gastritis	1	17.	Intemperance 2
	Hydrophobia	...		Enteritis	9		Privation of Food..... ...
2.	Hæmorrhage	8		Peritonitis ...	6		Want of Breast-milk 2
	Dropsy.....	17		Ascites.....	2		Neglect ....
	Abscess	4		Ulceration (of Intestines, &c.)	...		Cold ....
	Ulcer	3		Hernia	3		Poison ....
	Fistula.....	...		Ileus.....	3		Burns and Scalds 3
	Mortification	3		Intussusception	...		Hanging, &c. 5
	Cancer	16		Stricture of Intestinal Canal	1		Drowning ... 3
	Gout.....	2		Disease of Stomach, &c.	4		Fractures ... 10
3.	Scrofula	10		Disease of Pancreas...	...		Wounds 2
	Tabes Mesenterica	12		Hepatitis.....	3		Other Violence..... ...
	Phthisis (or Consumption).....	146		Jaundice	2		All Violence 23
	Hydrocephalus.....	29		Disease of Liver	12		
4.	Cephalitis ...	8					
	Apoplexy.....	24					

TO CORRESPONDENTS.

The approaching termination of our present volume obliges us rather to complete any serial papers we have begun, than to commence others. We must therefore still delay the communications of Dr. Hunt, of Brook-street, Dr. Lightfoot, of Fulham, and other friends, until the commencement of our volume in July.

A Disappointed One.—We receive so many complaints similar to that of our Correspondent, that we are induced to depart somewhat from Editorial etiquette, and reveal a part of the mysteries of journalism. Our Correspondent's communication, about the insertion of which he is so anxious, is but one of a huge heap under which "our table groans." We give below a list of valuable papers, under *three* departments of our Journal, which await space at the present moment, and even these do not comprise the whole.

SERIAL LECTURES.

Budd, Dr. George—Clinical Lecture on Medicine.
Cooper, Bransby B., Esq.—Clinical Lectures on Surgery.
Gavin—Lecture Introductory to his Course.
Guy, Dr.—On Public Health.
Jones, Dr. Bence—On Animal Chemistry.
Lawrence, W., Esq.—Clinical Lectures on Surgery.
Letheby, Dr.—On the Chemistry of the Poisons.
Lloyd, E. A., Esq.—Clinical Lectures on Surgery.
Quekett, J. T., Esq.—On Histology.

ORIGINAL COMMUNICATIONS.

Anonymous.—Extracts from the Diary of a Dispensary Physician. (Serial.)
————.—Hygienus—Discourse on the Officer of Health and his Duties.
Bascome, Dr.—On Epidemic Diseases.
Beck, Dr. T. Snow—On the Pathology of the Uterus. (Serial.)
Braid, James, Esq.—Electro-Biological Phenomena, Physiologically and Psychologically Considered.
————.—Cases of Cæsarian Section.
Bryson, Dr., R.N.—On the Infectious Origin and Propagation of Cholera. (Serial.)
Burnett, Dr. C. M.—On Crime and Insanity; their Causes, Connexion, and Consequences. (Serial.)
Bushman, Dr.—On Consumption and Scrofula. (Serial).
Coote, Holmes, Esq.—Cystic Degeneration of Kidney.
Ebsworth, Alfred, Esq.—Pauper Practice, Lunacy. (Serial.)
Forbes, John G., Esq.—Case of Aneurism of the Descending Thoracic Aorta.
Garlike, T. W., Esq.—Tonic and Sedative Treatment of Fevers.
Gibbons, Samuel, Esq., Liverpool—Treatment of Hæmorrhage with Abortion.
Goodman, Dr. John.—Experimental Researches into the Application of Water.
Grove, John, Esq.—On Aphtha.
Hunt, Dr.—On Hypochondriasis. (Serial.)
King, Dr.—The March of Death. (Serial).
Knox, Dr.—Observations on the Excision of the Pelvic Extremities of the Femur.
Leckie, Dr.—Cases of Saline Treatment of Cholera.
Lightfoot, Dr. Thomas—Observations on some of the more Important Diseases incident to Women. (Serial.)
Macdougall, Henry, Esq.—Case of Paraplegia, attended with Spermatic Discharge.
————.—Practical Cases.
Marson, J. F., Esq.—Case of Disease of the Spinal Cord.
Maund, Dr. John—Cases of Paracentesis Vesicæ.
Milton, J. L., Esq.—On Gonorrhœa and Gleet. (Serial.)
Parker, Dr. Nicholas—Contributions to the Pathology of the Nervous System. (Serial.)
Prior, Dr. C. E., Bedford.—Man Recent and Fossil.
Radcliffe, Dr. C. B.—Commentaries on Convulsive Diseases. (Serial.)
Rigby, Dr. Edward—On Uterine Diseases. (Serial.)
Roe, Dr. E.—On Cholera at Plymouth. (With Cuts.)
Saunders, Geo., Esq.—History of Diseases of the Eye, in H.M. 47th Regt.
Smith, Henry, Esq.—Cases in Surgery.
Smith, Dr. E.—Remarks on the Etiology of Pthisis. (Serial.)
Taylor, Dr. John.—On the Frequency of Pericarditis.
Wade, Robert, Esq.—On Stricture. (Serial.)
Wilde, W. R., Esq.—Practical Observations on Diseases of the Ear. (Serial.)
Whitling, H. J., Esq.—Student Life in Germany.

HOSPITALS.

General Hospital, Bristol—Mr. Clarke.
Guy's Hospital—By Mr. Pavy.
King's College—By Mr. H. Smith, and Mr. Lionel Beale.
London Hospital—By Mr. N. Ward.
Liverpool Infirmary—By Mr. F. D. Fletcher.
Middlesex Hospital—By Mr. S. W. Sibley.
Metropolitan Free—By Mr. Milton.
Queen's Hospital, Birmingham—By Mr. W. J. Moore.
Royal Free—By Mr. Milton.
Seamen's Hospital—By Dr. Rooke.
St. Bartholomew's Hospital—By Dr. Kirkes and Mr. H. Coote.
St. George's Hospital—By Dr. Barclay and Mr. Harvey Holl.
St. Thomas's Hospital—By Mr. Chaldecott.

[To the Editor of the Medical Times.]

Sir,—You will much oblige a constant reader by informing him whether marriage or celibacy is most conducive to longevity.

I am, &c. M. E. B.

*** Hufeland regarded married life, and Kant celibacy, as the more conducive to longevity. Both referred to experience in support of their views; the one to the examples recorded of married persons attaining a great age, and the other to the healthy appearance of old bachelors. The solution of the problem is probably to be found in the fact, that in the one case vital energy is preserved by celibacy, and in the other the enfeebled frame is fostered by domestic care. The statisticians of the present day tell us that unmarried folks have the best of it.

Ung. Ant. Tart. will observe that the subject of his letter has received our attention. Let the medical men in the district pledge themselves not to accept the appointments, nor to associate with those who do. The Profession sadly wants a code of ethics, administered by an impartial and authoritative Board, for the correction of those anomalies and improprieties of conduct which are now so numerous, because there is no Court of Appeal to determine what is right or wrong. We do our part, but the Profession do not perform theirs. The entire Profession is in a state of chaos.

We observe a long communication from Mr. Brady, of Halifax, which, in consequence of the advanced period of the week that we received it, we have not had leisure to examine.

R. W.—Our Correspondent will learn less from books than he imagines. He can acquire a true knowledge of skin diseases only by personal observation. The same disease is differently named by different authors, and even allocated under different species, according to the stage of development of the eruption, and the peculiar diathesis of the patient at the time the disease was observed. Nevertheless, books, when read with caution, familiarise the mind with the character of the different genera of skin disease, and facilitate clinical studies. With respect to itch, we advise our Correspondent to hunt for the acarus, and we wish him all success in his search short of *catching* it. If he fail, he will encounter the fate of hundreds before him, and perhaps begin to doubt again.

A Student.—There is no probability of a Medical Reform Bill passing the Legislature this Session. The Institute's Bill will never pass a second reading. That was only a *brutum fulmen*, and was not intended to be carried. Whether any Bill, or what kind, will be promoted by the Colleges we do not know, nor, we suspect do the Colleges themselves. Our Correspondent may pursue his studies without fear, and should strictly abide by the regulations of the Hall and College. No legislation, come when it may, will be retrospective.

Vindex, Tower Hamlets.—The hand-bill in question is most disgraceful to the party issuing it. Such acts tend to lower the Profession in the estimation of the public, and reduce it to the level of a mere trade. His neighbours should decline to observe towards the delinquent all the ordinary civility of professional intercourse.

Mr. Lionel Beale's Letter on Mr. Stone's Electro-Biological performances reached us too late for this week's impression.

Friend Oliver's letter is in print, not, however, that we can, by any manner of means, agree with his views.

Inquirer.—Undoubtedly, if formally engaged to attend.

The requests of Dr. John Davy, of Ambleside, and Mr. Maxwell, of Cannonbie, shall be attended to.

Communications have been received from—
Mr. Brady, of Huddersfield; Mr. Ramsbotham, of Huddersfield; Dr. Edward Smith, of Milton-street; Enquirer; Mr. C. C. Aldred, of Yarmouth; Mr. Robertson, of New Kent-road; Dr. Hunt, of Brook-street; Dr. Lightfoot, of Arundel-house, Fulham; Mr. Langston Parker, of Birmingham; Dr. Samuel Merriman, of Brook-street.

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ORIGINAL LECTURES.

LECTURES ON HISTOLOGY.

DELIVERED AT THE

ROYAL COLLEGE OF SURGEONS, LONDON.

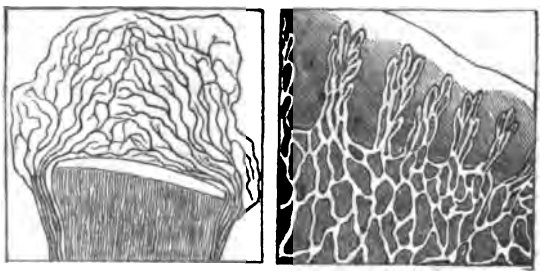
By J. T. QUEKETT, Esq.,
Assistant-Conservator of the Hunterian Museum.

(Continued from page 609.)

In adult articular cartilage, there are no vessels, except in diseased specimens, as will presently be shown. I have once seen vessels in the cartilage of a child twelve years of age, but never at a later period.

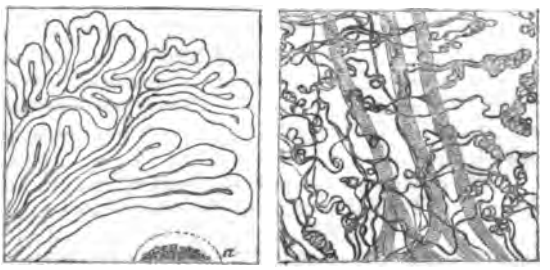
In the specimen before represented in *Fig.* 45, C, which is a vertical section of the head of a metacarpal bone of an adult, the vessels of the shaft of the bone could be traced until they reached the yellowish band (the non-vascular or articular lamella); here they ended in loops. The cartilage in this specimen is distinguished from the lamella by being whiter and much more transparent. The lamella is even present in the fœtus, as shown by the dotted line in *Fig.* 47, A, the vessels of the cartilage, which in this instance are very numerous, being derived from those of the articulation, but not from those of the shaft.

A *Fig.* 47. B



The non-vascular character of healthy articular cartilage is maintained from the period of youth to old age; but, if disease be present, vessels may soon be found in it: in this specimen from a diseased joint, which after removal was carefully injected, you may observe numerous vessels passing through the cartilage; they are derived from the vessels of the shaft, the articular lamella being involved in the disease, and, permitting the vessels to pass through it, they proceed in straight lines through the cartilage to the free articular surface upon which they form a network, and anastomose with others probably derived from the synovial membrane. The subject from whom this cartilage was removed was fifty years of age, and the disease had existed for nearly twelve months. I have the opportunity of showing you a preparation which belonged to the late Mr. Liston, and one which he was in the habit of exhibiting at his lectures. It is a portion of the head of the tibia, and was injected by himself. Not only can vessels be seen with the naked eye passing from the bony shaft into the cartilage, in the form of loops, as represented in *Fig.* 47, B, but a rich network may in some cases be observed upon a large portion of the articular surface. As far as I have been able to learn from examinations of diseased cartilage, especially that of ulceration, I have found that the change first takes place in the cartilage cells, and is made evident by their becoming rounder and much larger in size, and by their contents assuming a different character, the nuclei disappearing, and globules of oil taking their place; in some cases these oil globules are of very minute size, and the cells then appear granular; as the disease goes on, the cell-walls are absorbed, and a series of cavities are formed, and all the hyaline substance in the neighbourhood becomes more or less fibrous, and ultimately in this last tissue blood-vessels are found. The diseases of cartilage have been studied by very many able observers, especially Sir Benjamin Brodie, the late Mr. Key, and Mr. Liston, and more recently by Dr. Redfern, of Aberdeen, whose papers will be found in the *Monthly Journal of Medical Science*, for 1849. The nutriment, then, of articular cartilage is derived from two sources, viz., the articular vessels and those of the synovial membrane, more especially the latter; but neither set ever enters its substance, the one ending in loops immediately without the parts subjected to friction in the movement of the joint; whilst the others are confined to the cancelli of the shaft of the bone, being separated from the cartilage by the non-vascular lamella. The vessels of the synovial membrane of fœtal articular cartilages have already been shown to you. In the adult state, however, as shown in a portion of the head of a metacarpal bone, *Fig.* 48, *a*, the vessels are equally numerous, and when magnified at least twenty times, their looped terminations A are well displayed; they not only are continued upon the cartilage as far as the parts concerned in locomotion, but in some cases processes of the membrane, like fringes or large villi, richly supplied with vessels, project into every nook and corner where they are not liable to injury. These processes, which in the knee-joint were described by Clopton Havers, and stated by him to possess a glandular office, have upon more recent investigation been presumed to be entitled to such a character as Havers ascribed to them, although most anatomists since his time have regarded them as masses of fat. If one of the joints of a finger be laid open, the vessels of the synovial membrane forming the capsule of the joint will be found thrown into a series of processes like villi; these are largely supplied with vessels remarkable for their tortuosity; the villi project into all parts of the cavity of the joint, and the vessels are supposed to pour out the synovia; the villi, therefore, may be considered as the synovial glands. The arrangement of the capillaries of some of the largest specimens are represented in *Fig.* 49 *a*; similar processes, which no doubt secrete a fluid somewhat like synovia, are found within the sheaths of tendons, and upon those tendons which perforate or are perforated by others, as in the case of the flexor tendons of the finger which I now show you. Every part of the surface, both of the tendon and of the sheath in which they are contained, has a rich capillary network, except where they are subjected to friction. The vessels, as shown in this specimen (*Fig.* 48, B), of a synovial sheath taken from the middle finger of an adult human subject, are remarkable for the manner in which they are coiled up; this is somewhat in a

A *Fig.* 48. B



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heliacal form; the helices, however, do not project beyond the general surface of the synovial membrane. In this second specimen, which is of larger size than the preceding, and which has been dried after injection, the capillary network and the helices are beautifully shown; still nearer the joint the vessels are more numerous. If a portion of this vascular membrane be removed and carefully examined with a power of 250 diameters, the capillaries will generally be found to terminate in loops, but the synovial membrane itself extends some distance beyond the vessels, in some cases as far as 1-25th of an inch, this latter part being covered with epithelium; a portion of one of the villi, with its looped vessels, is represented in *Fig.* 49, *c*, and a few of the loops more highly magnified in *Fig.* 49, *e*, the scales of epithelium upon the basement membrane being well seen at *d*.

Fig. 49.

Whilst speaking on the subject of synovial vessels, I may show you those which accompany the ligamentum teres from its origin to its insertion; and it may not be out of place here to mention the fact, that some few animals, as the elephant and frog, have no ligamentum teres, whilst in the latter animal the ligament is situated in the shoulder joint, the use of the ligament in this situation being explicable by the habits of the frog, viz., that of hopping and pitching principally on its fore feet, whereby a considerable tendency to dislocation must necessarily exist in the shoulder-joint. If the ligament be examined in a fœtus which has been well injected, as in the specimen now sent round, a rich supply of blood-vessels will be found in the synovial membrane of the acetabulum; these proceed in straight lines over the ligament and terminate in loops immediately on its insertion into the head of the femur. This preparation is accurately represented in Plate VIII., *Fig.* 9, of the "Histological Catalogue," but the looped termination of the capillaries is best seen in *Fig.* 8, which is a more highly magnified view of that part of the head of the femur into which the ligament is inserted.

The vessels of synovial membrane, and those of the [illegible] sheaths of tendons, have been well described by Mr. Toynbee and Mr. Rainey, especially by the former gentleman, who has figured those of the ligamentum teres in his paper published in the "Philosophical Transactions." The beautiful looped vessels are not confined to the human subject, but exist in most of the lower animals; in this specimen, which is one of the long flexor tendons of the leg of an ostrich you may see circular patches of capillaries each of which, as shown in *Fig.* 49, *b*, terminates in a dilated loop. The vessels of tendon which were exhibited to you when considering the vascularity of fibrous structures, were those of the ostrich, and it was then mentioned that the rich superficial network belonged to the sheath of the tendon and not to the tendinous fibres themselves.

Whilst treating of articular cartilage, I will mention a certain kind of deposit, as it is termed, which takes place in joints that have been deprived of their cartilage by disease. Some of these specimens I now show you; the parts subjected to friction in the movements of the joint present a highly polished appearance, which is known as the ivory-like or porcellaneous deposit. If either of these specimens be examined, it will be found that all parts of the bone in the neighbourhood of the joint have an additional quantity of bony matter, thrown out probably as the result of rheumatism; the same thing, no doubt, would have taken place upon the polished surfaces, had not the exuberant growth been kept down by the friction; and, as no bone occupying this situation, unless exceedingly dense, could receive such a polish, I was led to speculate on the cause of the appearance; I therefore removed slices, and rendered them sufficiently thin for microscopic observation by grinding away the cut surface, and, having examined them, I found that there was an almost total absence of the Haversian canals, whereby the bone was rendered exceedingly dense, and I concluded that the new bone being prevented by friction from being thrown out upon the surface, was employed in filling up the canals, and by this means a substance, originally porous, was converted into a solid mass susceptible of taking the highest polish. This view of the subject corresponds precisely with a practice adopted by French polishers, who are occasionally obliged to fill up the pores, or canals, in many of our hard woods, such as rosewood and mahogany, before they can bring the polish to any perfection. I must now allude to a point which, for many years, has been the subject of dispute among anatomists, namely, whether the synovial membrane is continued over the surface of articular cartilage. If a joint from a very young animal be examined before it has been used, the surface of the cartilage will be found covered with synovial membrane, having an epithelium of that variety known as the tessellated; within a short period, however, after the joint has been used, the epithelium disappears, and, subsequently, the remainder of the synovial membrane also. This view of the subject is the one generally entertained; Mr. Toynbee, however, states that the membrane is not unfrequently present upon the cartilage, although its epithelial coating may have disappeared. In making the preparations now before you, many hundred sections were taken from the cartilages of the four great classes of animals, and all were examined with reference to this point, and I have satisfied myself that rarely, if ever, is the membrane continued over the cartilage in the long bones of the adult. In the patella, and other sesamoid bones, the synovial membrane, as shown by Mr. Toynbee, may occasionally be stripped off, but not from the surfaces of joints more perfectly formed. All my examinations tend to prove that the synovial membrane is continued a little way beyond its vessels and ends at the point where friction commences; the cells on the surface of the cartilage, which have so frequently been mistaken for those of epithelium, are nothing more than ordinary cartilage cells very much flattened; the resemblance of these cells to epithelium is most strikingly shown, as before stated, in the batrachian reptiles.

We now come to the examination of structures presenting all the characters of cartilage, which occur in the form of tumours, and have received from Müller the name of *Enchondroma*. Several of these are before you. The first is one of great interest, and has been described by Müller himself; it was removed by Hunter from a man's neck, and weighed 144 ounces: it consisted, as you may notice, of nodulated masses, like cartilage, which are firmly bound together by areolar tissue. Here also is another specimen of much interest,—it is a hand, almost every bone of which has enchondromatous tumours growing from it; it was removed by the late Sir A. Cooper. I now show you another instance of enchondroma occurring in a testis, which was removed by Mr. Fergusson of King's College.

The small slice which I now present to your notice formed part of a tumour upwards of twenty inches in circumference, lately removed at Bartholomew's Hospital by Mr. Lloyd; its structure is very remarkable, some of the cells of which its stroma is composed being represented in *Fig.* 52. If any of these tumours be carefully examined, they will be found to be

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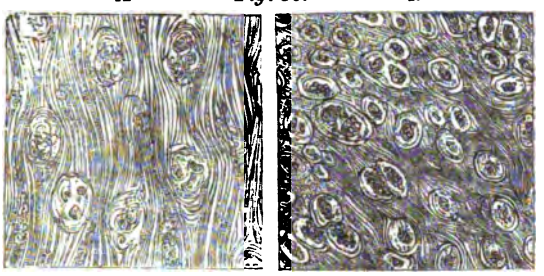
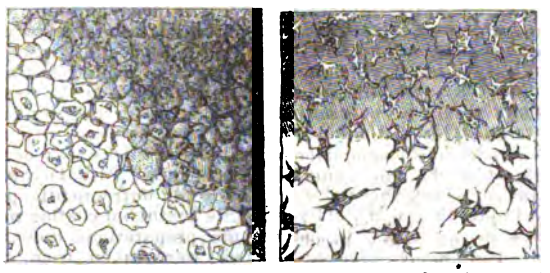
composed of a structure resembling either cartilage or fibro-cartilage. The first specimen we shall examine with the microscope is a portion of the tumour removed by Hunter, and consists of a series of large oval or spherical nucleated cells, imbedded in a firm intercellular substance, in some parts structureless, in others more or less fibrous; the cells, as shown in *Fig.* 50, A, contain nuclei which are very granular, and of a brown colour.

A *Fig.* 50. B



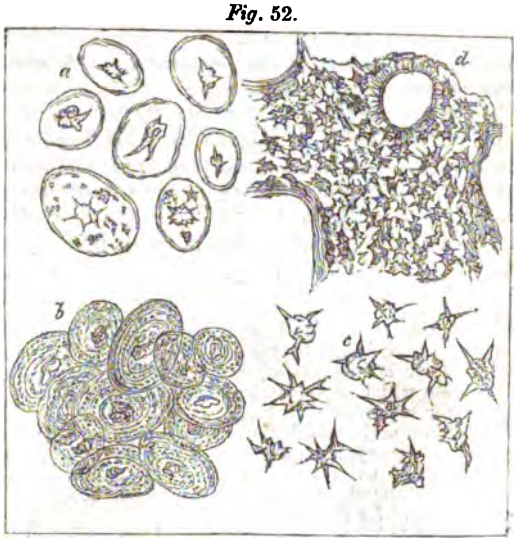
I now show you a second specimen, *Fig.* 50, B, removed after death from the rib of a man; this has also been described by Müller; it more resembles fibro-cartilage than true cartilage, many cells occurring among a dense mass of fibres; some have nuclei of large size; others, as shown in *Fig.* 51, A, are dark and granular, the latter being in the first stage of ossification. In the specimen from which this preparation was taken, there were many points or spicula of bone, but the fibres were fewest in these parts.

A *Fig.* 51. B



The next two specimens that I shall have the pleasure of exhibiting to you are possessed of the greatest interest, since they throw considerable light upon the formation of the lacunæ of bone. The first, *Fig.* 51, B, is a thin section of one of the tumours developed from the phalanges, etc., of this hand, removed some years since by the late Sir Astley Cooper; you will notice that it is composed of a series of small cells somewhat like the lacunæ of bone; each having branching tubes or canaliculi projecting from it; some of these cells are firmly imbedded in a fibrous matrix; others, as you may see in this second specimen from the same tumour, can be separated from the matrix, proving that they are true cells, and not mere vacuities in the hyaline substance. In order to show you that in all probability these cells are altered nuclei, the original cell-walls of which have disappeared, I now send round a section of the enchondromatous tumour above referred to as having been lately removed by Mr. Lloyd at St. Bartholomew's Hospital, from the leg of a young woman; it was a large mass, measuring twenty-two inches in circumference; the section exhibits cells of an oval or circular figure, having a central nucleus and a concentric laminated deposit. Some of these, as represented in *Fig.* 52, *b*, exhibit a minutely granular structure as though ossification had commenced in them; other parts of the section exhibit cells of similar size, in which the nucleus is not only well developed, but occasionally small projecting points, like the commencing formation of canaliculi, may be observed, as shown in *Fig.* 52, *a*; as soon, however, as the canaliculi are a little more evident, the cell-wall disappears, and we then have cells of similar shape to those in the first specimen, but of larger size, *Fig.* 52, *c*; it sometimes happens that these cells are met with either above or below a cartilage cell, and it then appears as though the altered nucleus were still within a cell wall; but careful focussing will prove that this view of their relative situation is incorrect. In one part of the specimen is a thin layer of bone, in which the lacunæ are large, and have but few canaliculi; these, as shown in *Fig.* 52, *d*, very much resemble the nuclei of the cells, and no doubt were formed from them.

Fig. 52.



With regard to the formation of the lacunæ of bone, two views are now entertained by different parties; the first is that given in the "Physiological Anatomy" of Professors Todd and Bowman, in which it is shown that the lacunæ are developed from the nuclei of the cartilage cells; the other that of Mr. Tomes, published in "Todd's Cyclopædia," article "Osseous Tissue," in which it is stated, that the lacunæ are not developed from the nuclei of the cartilage cells, but are cavities left in the newly formed bone, from which canaliculi are subsequently developed; this last specimen of enchondroma, however, would tend to prove that the view entertained by Messrs. Todd and Bowman is the more correct one.

LECTURE DELIVERED AT THE ROYAL COLLEGE OF SURGEONS.

By Professor OWEN.

ON THE 11TH JUNE.

ON METAMORPHOSIS AND METAGENESIS.

After passing under review the Linnæan characters of minerals, vegetables, and animals, and the subsequent distinctions which had been proposed for the discrimination of the two latter kingdoms of nature; and discussing those founded on motion, the stomach, the respiratory products, the composition of the tissues, and the sources of nourishment, the Professor proceeded to show that none of these singly, define absolutely the boundaries between plants and animals; it requires that a certain proportion of the supposed characteristics should be combined for that purpose.

The individuals in which such characters are combined are specially defined members of one great family of organized beings, and the supposed peculiarly animal and vegetable characters taken singly, interdigitate, as it were, and cross that debateable ground and low department of the common organic world from which the specialized plants and animals rise; and there are numerous living beings with the common organic characters that have not the distinctive combined superadditions of either groupe.

Between the organic and inorganic worlds the line of demarcation may be more definitely drawn. The term "growth" cannot be used in the same sense to signify the increase of a mineral and of an organism. The mode of increase is different; there is a definite limit to it in the organic kingdom, and something more than mere growth takes place in the progress of an organism from its commencement to maturity. This was exemplified by reference

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to the human subject; to the lion, which acquires its mane; to the stag, which gets its horns; and to the change of plumage in birds during the course of growth. The changes of form and character are still more remarkable in the kangaroo; and in the frog they are such as to have received the name of "*metamorphosis*."

The development of the frog was traced to its exclusion from the egg in the form of a fish, with external gills, a long caudal fin, and without legs.

The internal skeleton, like the external shape, is adapted for aquatic life.

Only those parts are ossified which are to be retained in the mature state. The vertebræ are at first biconcave, as in fishes, with intervening spherical elastic balls filled with fluid; they are converted into ball and socket joints by the ossification of the sphere, and its anchylosis to the back part of the vertebræ. The pelvis and hind legs are progressively developed; and, whilst this change is proceeding, the tail is undergoing proportional absorption. The chief change in the skull of the larva is operated in the lower or hæmal arches and their appendages. The maxillary arch is widened and provided with teeth, and the horny mandibles are shed. The mandibular arch retrogrades as well as expands. The hyoidean undergoes a remarkable change of size and shape, and the branchial arches are absorbed, excepting a small portion which is converted into the hinder "horns" of the hyoid for supporting the larynx.

The scapular arch, which at first was connected with the occiput, whilst supporting the branchial heart—its primary function, begins as soon as the fore-legs bud out, to retrograde, and the sternum is developed to complete the "point d'appui" for the fore limbs.

The food of the larva is chiefly the soft decaying parts of aquatic plants; it has a horny beak, a long alimentary canal disposed in a series of double spiral coils; but, as its frame undergoes the changes adapting it for life on land, and a purely animal diet, the mandibles are converted into jaws and teeth, and the long spiral intestine into a short and slightly convoluted one.

Soon after the external gills have reached their full development they begin to shrink and finally disappear; but the branchial circulation is maintained some time longer upon internal gills: by anastomoses between the principal branchial vessels these are converted into the aortic arches, carotids, and subclavians; the internal gills, with the cartilaginous hoops supporting them, are absorbed, and lungs and glottis for breathing the air directly are developed.

Thus an animal formed for moving in water is changed into one adapted for moving and leaping on land; a water-breather is converted into an air-breather; a vegetable feeder into a carnivorous animal; yet the series of transmutations are limited to the nature of the species, and produce no other. The frogs that croak in our marshes are as strictly batrachian as those that leaped in Pharaoh's chamber; their metamorphoses have led to nothing higher than their original condition, as far as history gives us any knowledge of it. With each successive generation the series of changes re-commences from the old point, and ends in a condition of the animal adapted to set the same series again on foot.

Having traced the principal stages in the metamorphosis of an animal from a swimmer to a leaper, the Lecturer next took an instance where one that begins life as a burrower or a crawler, and is converted into an animal of rapid and powerful flight.

Most insects quit the egg in the form of a worm, which masking, as it were, a different and higher form, is called the "larva;" it is active and voracious, but usually falls into a kind of torpor, during which the changes take place which issue in the flying insect; during the passive stage of metamorphosis it is called a "pupa;" the last volant stage is the "imago."

The chief steps in the metamorphosis were traced as they affect the outward form, the digestive organs, the circulatory, and respiratory, and nervous systems.

The main differences in the metamorphoses of insects relate to the place where, and the time during which they are undergone. The young cockroach and the little aphis, which were first acephalous and apodal, and then had thirteen equal segments, with soft unjointed legs, proceed to acquire a distinct head with antennæ, a thorax, with three pairs of long jointed legs, and an abdomen, before they quit the egg; they thus enter upon active life under the guise of a crab, instead of a worm. With regard to the *Aphis*, that insect, instead of proceeding to perfect its individual development, may at once begin the great business of its existence by parthenogenetic procreation. Bonnet's experiments, which first brought to light this marvellous fact, have received uniform confirmation from all subsequent inquirers, and no natural phenomenon is now better determined.

From seven to eleven successive generations have been traced before the individual has finally metamorphosed itself into the winged male or winged oviparous female.

In Autumn, when the nights grow chilly and long, the oviparous imago completes her duty by depositing the eggs in the axils of the leaves of the plant, where they are protected from the winter frost, and ready to be hatched at the return of Spring. Then recommences the cycle of change, which being carried through a succession of individuals, and not completed in a single life-time, is a "metagenesis" rather than a "metamorphosis."

This phenomenon, which until very recently was deemed an exception, and a most marvellous one, in nature, now proves to be an example of a condition of procreation to which the greater part of organised nature is subject.

The lecturer was inevitably limited in his choice of illustrations, and proceeded to an instance of metagenesis from the radiated sub-kingdom of animals.

The stages of this metagenesis have been best and most completely traced in the *Medusa aurita*, by Siebold, Dalyell, Sars, and others.

The first step was made by Siebold, who, in 1839, traced the development of the *Medusa aurita* from the egg to a stage resembling a ciliated monad, then to a lobed rotifer, and next to a long-armed polype.

This polype stage of the *Medusa* had been previously recognised in 1788, but without a suspicion of its true nature, by O. F. Müller, who called it *Hydra gelatinosa*.

It was next observed, and its habits more fully described, by Sir John Dalyell, in 1834, as *Hydra tuba*; and in 1836 he made known its singular metamorphoses into forms which Sars had previously described as *Scyphistoma* and *Strobila*; and Dalyell saw the spontaneous division of the latter into a pile or series of small Medusæ. All the stages of the metagenesis were independently noted by Sars, who described them in 1841.

The difficulty of accounting for the presence of Entozoa in the interior parts of animal bodies is rapidly disappearing as the knowledge of their course of development advances.

The principal stages of this development were described in a small worm (*Monostoma mutabile*), parasitic in the air-cells, intestines, and peritoneal cavity of many water-fowl.

The ovum is converted into a ciliated monadiform embryo; which escapes from the bird, and swims about freely in the water. A clear mass may be discerned in the interior, which exhibits independent movements. This body is liberated, grows rapidly, and generates in its interior a number of independent organisms provided with a cephalic spiculum and a caudal appendage, referable by their form to the genus *Cercaria*. They are very active and insinuating, could even bore through the skin by the sharp needle-like armature of the head, and somehow or other do, under the guise of the *Cercaria*, again get access to the interior of the water-fowl; fall into a state of torpor; become circular flattened pupæ; and are finally metamorphosed into monostomes,—a sluggish pendant parasite utterly deprived of the power of existing in water, or of gaining access, as a monostome, to the interior of any animal.

Steenstrup, who has the merit of having first grouped together and pointed out the analogies of the different stages in the animals that undergo these successive changes, generalises the facts under the phrase of "Alternate Generation," and he calls the procreant larvæ "Amme," or Nurses, and "Gross-amme," or Grand-nurses. There is no particular objection to these names, but we naturally desire to know on what power the metageneses depend.

Professor Owen thought the key to the power was afforded by the process which the germinal part of every egg undergoes before the embryo begins to be formed.

A principle, answering to the pollen that fertilizes the seed of plants, is the efficient cause of these changes; its mode of operating is best seen in the transparent eggs of some minute worms; the principle manifests itself as a transparent, highly refractive globule in the centre of the egg; it then divides, and each division, attracting the vitelline matter of the egg about it, divides that matter into two parts. This division is repeated with the same result, until the principle

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has diffused itself by indefinite multiplication through the whole yelk which then constitutes the "germ-mass."

The next stage is the formation of the embryo; certain of the minute subdivisions, called "nuclei" or nucleated cells, combine and coalesce to constitute the tissues of the embryos; they are afterwards incapable of generating other cells. If all be so metamorphosed, the organism cannot procreate of itself; but if a part only of the germ-mass be metamorphosed into tissues, the unchanged remnant may, under the stimulus of food and warmth, repeat the same actions as those that formed the first germ-mass, and lay the foundation of future embryos.

In proportion to the amount of the substance of an organism which retains the primitive condition of cells, is the power of producing new individuals without receiving a fresh supply of the pollen-principle.

Thus in a plant, when the seed has received the matter of the pollen-filament, analogous changes take place to those that have been described in the animal egg, and the embryo plant appears in the form of the cotyledonal leaf with its radicle or rootlet. From this shoots forth another leaf with its stem: and the cellular substance of the pith with its share of the pollen-principle goes on developing fresh leaves and leaf-stalks; until a provision for developing fresh pollen is made by transforming certain individual leaves into a higher form of the "phyton" or elemental plant. Thus a generation or "whorl" of leaves assumes the character of sepals, another that of petals, a third that of stamens, a fourth that of pistils, and in the two latter forms we recognise the analogues of the perfect male and female of the animal.

The development of the compound polype follows very closely the stages of the compound plant, which we call shrub or tree: the ovum, like the seed, having received the pollen-principle, is converted into countless cells and nuclei of cells by the process for diffusing that principle through, or of assimilating it with the matter of the egg. Then certain germ-cells are metamorphosed into a ciliated integument, and the larva starts forth, in a state answering to the cotyledonal leaf of the plant; the ciliated larva settles, subsides, and shoots up a stem from which a digestive polype is developed, answering to the leaf; but the spermatic force not being exhausted, a second branch and polype are developed, and so on until a preparation is made for a fresh supply of that force, by metamorphosing the polype into a higher form of individual; and this, in many compound polypes, is set free in the shape of a minute medusa.

The true nature and relation of the individual polype to the compound whole is well illustrated by the propagations of the Aphides.

By comparing with the diagrams of the metagenesis of the plant and polype, that of the Aphis, in which was represented the corresponding stages intervening between the ovum and the perfect male and female individuals of the Aphis, the analogy between these stages in the plant, the polype, and the insect, was shown to be both true and close. The microscopic sperm-filament of the male Aphis answers to the microscopic pollen-filament of the male leaf or "stamen;" the egg of the female *Aphis* to the seed of the female leaf or pistil by the combination of the filament the fertile ovum results. The same processes of cell-formation ensue, and the embryo *Aphis* is formed by the metamorphoses of a portion of the germ-cells; but it retains the rest unchanged in its interior, which may be compared with the cells of the pith of the plant, and with the cells in the corresponding more fluid part of the pith of the polype. Under favourable circumstances of nutriment and temperature certain of these cells repeat the process of embryonic formation, and a larval individual like that from the ovum is thus reproduced, which is only not retained in connexion with its parent, because the integument is not co-extended with it.

The generation of a larval Aphis may be repeated from seven to eleven times without any more accession to the primary pollen-force of the retained cells than in the case of the zoophyte or plant; one might call the generation, one by "internal gemmation;" but this phrase would not explain the conditions essential to the process, unless we previously knew those conditions in regard to ordinary or external gemmation.

At length, however, the last apterous or larval Aphis, so developed, proceeds to be "metamorphosed" into a winged individual, in which either only the fertilising filaments are formed, as in the case of the stamens of the plant, or only the ovules, as in the case of the pistil. We have, in fact, at length "male and female individuals," preceded by procreative individuals of a lower or arrested grade of organization, analogues to the gemmiparous polypes of the zoophyte and to the leaves of the plant.

The process was described for its better intelligibility in the Aphides as one of a simple succession of single individuals; but it is much more marvellous in nature. The first-formed larva of early spring procreates not one, but eight larvæ like itself in successive broods, and each of these larvæ repeats the process; it may be again repeated in the same geometrical ratio, until a number which figures only can indicate and language almost fails to express, is the result. The Aphides produced by this internal gemmation, are as countless as the leaves of a tree, to which they are so closely analogous.

It generally happens that the metamorphosis which has been described as occurring after the seventh or eleventh generation, takes place much earlier in the case of some of the thousands of individuals so propagated: just as a leaf-bud near the root may develope a leaf-stem and a flower with much fewer antecedent generations of leaves from buds than have preceded the formation of the flower at the summit of the plant; or just as one of the lower and earlier formed digestive polypes may push out a bud to be transformed into a procreative and locomotive polype. The same analogy is closely maintained throughout.

The wingless larval Aphides are not very locomotive; they might have been attached to one another by continuity of integument, and each have been fixed to suck the juices from the part of the plant where it was brought forth. The stem of the rose might have been incrusted with a chain of such connected larvæ as we see the stem of a fucus incrusted with a chain of connected polypes, and only the last developed winged males and oviparous females might have been set free. The connecting medium might even have permitted a common current of nutriment contributed to by each individual to circulate through the whole compound body. But how little of anything essential to the animal would be affected by cutting through this hypothetical connecting and vascular integument, and setting each individual free! If we perform this operation on the compound zoophyte, the detached polype may live and continue its gemmiparous reproduction. This is more certainly and constantly the result in detaching one of the monadiform individuals which assists in composing the seeming individual whole called "Volvox globator;" and so likewise with the leaf-bud. And this liberation Nature has actually performed for us in the case of the Aphis, and she thereby plainly teaches us the true value or signification in morphology of the connecting links that remain to attach together the different gemmiparous individuals of the volvox, the zoophyte, and the plant.

The analogy between the procreating larvæ of the *Aphis*, the *Medusa*, and the *Coralline*, is so true and so close, that if the larval Aphis be a distinct individual and not a part, so must be the strobila, the planula, and the gemmiparous leaf: if the succession of larval Aphides be truly described as a succession of generations, so must that succession of planula, polype, and strobila which leads to the oviparous Medusa: and that succession of planulæ and nutritive polypes which precede the detachment of the free procreative medusoid polypes in the Coryne; and the like with the plant generations preceding the flower.

It would have been easy, if time permitted, to multiply the illustrations of the essential condition of these phenomena. That condition is, the retention of certain of the progeny of the primary fertilized germ-cell, or, in other words, of the germ-mass, unchanged in the body of the first individual developed from that germ-mass, with so much of the spermatic force inherited by the retained germ-cells from the parent-cell or germ-vesicle as suffices to set on foot and maintain the same series of formative actions as those which constituted the individual containing them.

How the retained spermatic force operates in the formation of a new germ-mass from a secondary, tertiary, or quaternary derivative germ-cell, the Professor did not pretend to explain; neither was it known how it operates in developing the primary germ-mass.

The botanist and physiologist congratulates himself with justice when he has been able to pass from cause to cause, until he arrives at the union of the pollen-filament with the ovule as the essential condition of development—a cause ready to

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operate when the needful accessory circumstances concur, and without which those circumstances have no effect.

The chief aim of the present discourse was to point out the purpose or intent of the co-called "cleavage process" in all impregnated eggs, as being that by which the spermatic principle is distributed throughout the germ-mass, and thereby becomes the essential condition of the development of the successive generations completing the metagenetic cycle of the Aphis, the Medusa, the Polype, and the Entozoon. The cause is the same in kind, though not in degree, as that which produces the primary development of the embryo; and every successive generation, or series of spontaneous fissions, of the primary germ-cell, must weaken the spermatic force transmitted to such successive generations of cells.

The force is exhausted in proportion to the complexity and living powers of the organism developed from the primary germ-cell and germ-mass. It is consequently longest retained and furthest transmitted in the vegetable kingdom; the zoophytes manifest it in the next degree of force; and the power of retained germ-cells to develope a germ-mass and embryo by the remnant of the spermatic force which they inherited, is finally lost, according to present knowledge, in the class of Insecta and in the lower Mollusca.

ORIGINAL COMMUNICATIONS.

ON THE INFECTIOUS ORIGIN AND PROPAGATION OF CHOLERA.

By ALEXANDER BRYSON, M.D., Surgeon, R.N.

(Continued from page 651.)

The following is another instance of the propagation of cholera from one or more cases transported from an infected locality into a healthy ship, which can only be explained by the reproduction of an infectious virus through a series of consecutive cases. Her Majesty's Ship Apollo, employed in the conveyance of troops, left Spithead on the 4th of June, 1849, and arrived at the Cove of Cork on the 7th. On the 11th of the same month, 513 men, 43 women, and 40 children, all of or belonging to the 59th Regiment, were embarked for a passage to Hong-Kong, and on the 17th she sailed for her destination. It may be as well to state that cases of cholera had occurred, if not in the regiment, at least in the barracks from which it came, a short while previous to its leaving them, and that the disease was also prevalent in the neighbourhood. On the morning of the 18th, the day after she left the Cove of Cork, a case presenting in the onset symptoms of the worst character occurred, and in the course of a few hours terminated fatally. As no case had occurred previously in the ship, there is every reason to suppose that the germs of the disease in this instance were contracted on shore. No other case, presenting any of the well-marked symptoms of cholera occurred, until the 26th, when one of the women was attacked;—she recovered. On the 29th the third case occurred, and proved fatal to the patient, a soldier, within the space of a few hours. It is also possible, although (particularly with regard to the last one) not at all probable, that both these cases may have been contracted before the parties joined the ship, but those which occurred subsequently to this date, considering the lapse of time and the nature of the atmosphere the ship had passed through, can no longer be attributed to the influence of local causes, whether of a terrestrial or personal nature, operating on the men severally before the ship left Cork. Whatever may have been the cause or causes, it is now evident we must look for them within the ship herself.

On the 29th she reached Madeira, but not being allowed to communicate with the island, otherwise than by the pratique boat, she merely hove to for a short time in Funchal Bay, and then proceeded on her voyage.

On the 1st of July, she anchored off Santa Cruz, Teneriffe; pratique was refused here also, but provisions were permitted to be brought on board. On the following day, the 2nd of July, a fortnight from the time she left Cork, the next case occurred; then there was one on the 5th, one on the 7th, one on the 8th, one on the 9th, and one on the 10th. All these recovered; but there was one on the 16th and one on the 18th, both fatal. On the 19th, from causes to be presently noticed, there was a sudden aggravation of the disease, and now, thirty-two days after the vessel's departure from Cork, it began to extend to the ship's company, who had hitherto entirely escaped. Of the six cases which occurred on the above date, three of the patients belonged to the ship, and three to the regiment; two of the former and two of the latter proved fatal. On the 20th, there were three cases,—one soldier and two of the crew; the latter both fatal. On the 21st there were two cases, on the 22nd one, on the 23rd two; all these recovered. Again, on the 29th there were two, and on the 30th two—all four fatal. On the 30th there was one, which recovered. On the 5th of August there was one, and on the 11th another, the last that presented unequivocal symptoms of cholera; both these cases ended fatally.

When the vessel left Teneriffe is not stated, but she crossed the equator on the 24th of July, and arrived at Rio de Janeiro on the 7th of August. As the Brazilian authorities would not permit the sick to be landed, nor the vessel to be cleared out within the harbour, or at any of the contiguous islands, she sailed on the 10th for the Isla Grande, which lies about sixty miles to the westward of Rio, and on the 12th anchored in Albroo-bay, which was selected as being a convenient place for clearing her out. On the 13th all the troops and the sick, the latter seventy-two in number, were disembarked; the former were placed under canvass, and the sick in a cottage fitted up as a temporary hospital.

No new cases occurred amongst the crew after the 23rd of July, the day before they crossed the equator; but cases continued to occur amongst the troops at various intervals of time, up to the 11th of August, two days before they landed. The last case was of a very decided character, proving fatal in eight hours. Still, although there were no more cases presenting the peculiar characteristics of cholera, there were many diarrhœal attacks. From the time the disease broke out, in fact, until after they had been several days landed on the island, diarrhœal complaints were numerous, and in some instances so severe that it was difficult to decide under what category they ought to be placed. The total number of decided cases of cholera amounted to thirty-two, of which sixteen recovered and sixteen died.

The medical officer in charge of the troops and the medical officer of the vessel gave the following opinions respecting the origin and the persistence of the disease:—

"Considering the circumstance of the disease having made its appearance so shortly after the embarkation of the troops, its having existed among them so very recently before their embarkation, and their having been embarked directly from a barrack in which, as we are led to believe, cholera prevailed, we are of opinion that the disease did not originate in the ship, but that in consequence of the crowded state of the troops and the imperfect ventilation, (notwithstanding the adoption of every possible available means for that purpose,) an atmosphere has been generated on board favourable to the development of such disease in those previously exposed to the poisonous influence causing it, (as the troops had been before, and at the time of embarkation,) if not also to its spread among others, whose constitutions may have been originally more than usually susceptible to any morbific influence, or have been rendered so by the debilitating effects of such exposure as necessarily attends their position on board ship.

"In arriving at this conclusion we are further influenced by the fact, that the ship's company remained free from the disease for a considerable period after its appearance among the troops, and even then not until the existence of atmospheric conditions peculiarly favourable to its spread, namely, close damp weather; and also by the unusual circumstance of the disease for some time increasing as we proceeded to sea, and still continuing, instead of, as we had every reason to expect, its gradually disappearing by our more distant removal from the neighbourhood in which the disease seems to have been contracted."

Whether the exposure of the soldiers to the exciting cause of the disease at Cork had any effect in favouring the production or development of the cases which occurred after the ship had entered the tropics, it would be difficult to determine, because we have no experience or knowledge of any similar facts to guide us in reasoning as to the probability of such result; but, as the seamen who were not so exposed at Cork suffered nearly in the same ratio with the soldiers up-

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wards of thirty days after they had left the land, the probability is, that it had no effect whatever; and, as the accommodations in the ship were the same as they had been before, when cholera did not exist on board, and as they were not dissimilar to those in other vessels of the same class similarly employed, there is about as little reason to suppose that the exposure or position of the seamen at the present time induced debility, or otherwise rendered them unusually susceptible to any morbific influence. How far a poisonous atmosphere,—or, rather, a poisonous condition of the atmosphere, from admixture with personal emanations,—generated on board, was wholly and solely effective in the production of the cases subsequently to the first three or four, remains to be seen.

As soon as the troops and the sick were landed, the seamen began to clear out the holds, which were found to be clean, and dry, and free from offensive effluvia. Every other part of the ship was examined, but nothing whatever was discovered that could, either directly or indirectly, be supposed to have been instrumental in the production of the disease; and as the seamen, while thus employed, did not suffer from any choleraic symptoms, it will now be necessary to examine what the proofs are in favour of its having been the direct result of a personal cause, introduced and propagated among her living cargo.

The ship's company occupied the starboard side of the main or uppermost covered deck; the troops, part of the opposite side of the same deck, and the whole of the lower, or deck immediately underneath. Between this latter and the main deck there were four wide tubes, two on each side, for allowing the heated air to escape from the lower deck, but, as they were not carried on through the upper deck, as they ought to have been, they merely served to relieve the one deck of impure air at the expense of the other. These tubes, for some reason, or it may have been from accident, remained closed until within two days of the occurrence of the first cases among the ship's company; and, what is of still greater importance to observe, the greater number of the cases on this deck occurred among the men belonging to the messes close to the apertures of the tubes, or to the main hatchway, by which the impure air also escaped; distinctly showing one of two things,—namely, that the disease was either communicated from the people on the lower deck to those on the upper by a personal virus, or that the impure air from the lower deck so greatly impaired the health of the men breathing it, as to render them more susceptible to the influence of an unknown exciting cause hovering within or around the ship. But, as it is utterly physically impossible that any aërial poison, or other cause connected with an epidemic constitution of the atmosphere, could have adhered to the vessel so long and so far across the ocean, the question as regards the true source of the disease becomes still further narrowed, and, at the risk of repetition, may be thus summarily stated:—Cholera made its appearance among the troops immediately after their removal from an infected locality into a healthy ship, the first case occurring the day after they went to sea; the second, a week later; and then dropping cases and cases of diarrhœa up to the 19th of July, thirty-two days after they had left the land, and about two thousand miles distant from the spot where it originated. Immediately after a free atmospheric communication had been opened up between the two decks, the disease began to attack the ship's company, those who were the most exposed being the first to suffer, although they had not had any direct communication with the original site of the disease at Cork, nor, for a period of at least six or seven weeks, with any other place besides the ship wherein it existed.

These latter cases occurring amongst the seamen thirty-two days after they had gone to sea cannot, it is confidently assumed, be attributed to any local telluric cause; nor is it possible to suppose they could be the result of an epidemic cause floating in the atmosphere and following the ship across the Atlantic; and as it is equally improbable, considering the clean state of the hold, and the length of time the seamen had been living on board, that they originated from any cause (other than the emanations arising from the sick) within the ship, it is hardly possible to conceive that we shall ever obtain more conclusive evidence of the propagation of any disease by a specific infection arising from the human frame.

In the Appendix (a) to the Report of the Board of Health on Epidemic Cholera, an opinion is expressed with respect to the danger of vessels with cholera on board going to sea, which, in justice to the naval service, it is necessary to take some notice of here, as, if acted on in every instance, it may lead to the most serious consequences.

Speaking of the emigrant ship American Eagle, Dr. Sutherland makes the following remarks:—

"A large vessel, which in an ordinary season might possibly have carried its crew and passengers across the Atlantic in safety, is laid in dock close to an epidemic locality. The stagnant water of the dock leaks into the vessel and becomes offensive; the ventilation is very defective; an overcrowded population of emigrants is placed on board; their food is unwholesome; and the personal habits of many of them filthy."

"Cholera strikes the ship just as I have seen it again and again strike a similarly circumstanced locality on shore."

"Had proper care been taken to preserve the neighbourhood of the docks in a proper sanitary state, we have every reason from experience to believe that an epidemic centre would not have existed there; and had the requisite precautions been taken on board the American Eagle, it is equally certain the crew and passengers would have escaped cholera."

"The case of the American Eagle further shows the importance of preventing the sailing of an emigrant ship, or any other vessel, when cholera has broken out on board. The greater purity of the air at sea, and the getting out of the epidemic atmosphere, which the ship by sailing might perhaps soon do, may appear at first view to be reasons for her putting to sea with all possible despatch. But this view is a fallacious one, and, if acted on, would involve the certain destruction of numerous persons."

"No matter how pure the atmosphere into which the ship may sail, this pure atmosphere cannot be got to the unhappy passengers. There is no possibility of substituting it for the poisoned atmosphere which is in the ship, which she carries with her, and which her overcrowded population continue to breathe.

"Under ordinary circumstances there was nothing (in the ship) that would have produced more than an ordinary amount of sickness, but quite enough, during an epidemic, to determine its localisation."

Now, what the results might have been had this vessel remained at sea, instead of running into Plymouth, can only be a matter of conjecture; they might or they might not have been as Dr. Sutherland has predicted. But, in a ship of war, or even in the majority of merchantmen, although ventilation by windsails might be greatly neglected, it is hardly possible to imagine that a portion of infected air, abstracted as it were from an epidemic centre existing in the general atmosphere near a dock, could be confined within her, and retain its peculiar destructive properties for days, much less for weeks in succession. How long the essential cause, the true source of the disease, without which it could not exist, contained in so small a portion of the atmosphere as would occupy those portions of the ship in which the men live and move about might retain its morbific influence, after being separated from its centre, we need hardly ask, because it is evident that the air itself in which it was contained, would necessarily be displaced in the course of a few hours at most by the ordinary movements of the atmosphere, by the currents of air thrown down into the body of the ship by the sails, by the motions of the men themselves, and by a hundred other disturbing causes, which it is not necessary to mention. It is therefore obvious, that a disease depending on a cause thus accidentally introduced into a ship, would, in the course of a short time altogether cease, unless the cause continued to be re-produced within the ship after she had left the infected locality, and that the efficient cause of cholera has been thus produced in vessels situated similarly to the American Eagle, after leaving an epidemic centre, there can be no reasonable doubt; but it has not been produced by any peculiarity in the ship herself, or her cargo; neither has it arisen from a distempered condition of the atmosphere surrounding the ship, but from the diseased condition of the living beings contained within her. The most offensive dock-water that ever leaked into a ship, or the greatest accumulations of filth amongst men closely crowded together, have never been known of themselves to produce Asiatic cholera in this country.

The following short sketch of the eruption and decline of

(a) Page 140.

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cholera in several vessels of war in the Mediterranean in 1850, will show how far Dr. Sutherland's views as to the danger of a ship going to sea with the cholera on board are borne out by experience; for instance:—

Cholera was first recognised in its malignant form in the fleet, on the 15th of June; on that day one case occurred in H.M.S. Caledonia, while she lay in the grand harbour of Malta. This was followed by several other cases, and cases of diarrhœa; she accordingly went to sea. On the 3rd of July a few more cases occurred, but, as she stood well off the land, the disease, in less than a week, entirely vanished. On the 30th she returned to Malta harbour, but went out again almost immediately. On the 4th of August the disease again made its appearance, but, as before, rapidly declined; no new cases occurring after the 14th. On the 2nd of September she once more entered that part of the harbour called Bighi-bay, to obtain water and stores, but remained only a day or two; for the third time the disease showed itself, and was not entirely got rid of until the 23rd of the month.

In the Queen, the disease broke out in the same harbour, on the 19th of June. On that day there was one case, which was followed, during the succeeding week, by a number of diarrhœal attacks; then there was another case of cholera on the 28th, three on the 29th, one on the 30th, two on the 1st of July, five on the 2nd, three on the 3rd; on the latter date the vessel went to sea. Subsequently, for twelve days, the daily number of cases of cholera and choleraic diarrhœa was as under:—

On the 4th	there were	3	cases of	cholera and	15 of diarrhœa.
„ 5th	„	1	„	7	„
„ 6th	„	1	„	6	„
„ 7th	„	0	„	3	„
„ 8th	„	0	„	4	„
„ 9th	„	0	„	4	„
„ 10th	„	1	„	4	„
„ 11th	„	2	„	7	„
„ 12th	„	1	„	7	„
„ 13th	„	1	„	8	„
„ 14th	„	0	„	3	„
„ 15th	„	0	„	3	„

After this, the vessel keeping at a considerable distance from the land, both diseases entirely disappeared.

On the 14th of August she ran into Bighi Bay to procure water, and, on the 16th, rejoined the squadron at sea, which immediately stood away to the north westward. On the 19th, three days after leaving the harbour, the disease again made its appearance. One case of cholera occurred on the 19th, and, on the 21st, there was another, and seven cases of choleraic diarrhœa; attacks of the latter kind continued for several days longer, when both diseases entirely disappeared. The ship, in the meantime, stood across to the coast of Sardinia, but returned "to her old cruising ground," off Malta light-house, on the 29th. On the 4th of September she entered Bighi Bay, and remained there until the morning of the 8th. Early on that day, while she was being towed out to sea, for the third time cholera broke out with fearful virulence, after "a lapse of seventeen days;" the greatest number of attacks occurring on the two days after her departure.

On the 8th	there were	7	cases of	cholera,	1 death, and	3	cases of diarrhœa.
9th	„	15	„	6	„	9	„
10th	„	14	„	9	„	11	„
11th	„	1	„	3	„	15	„
12th	„	3	„	2	„	14	„
13th	„	2	„	1	„	9	„
14th	„	4	„	2	„	6	„
15th	„	4	„	2	„	3	„
16th	„	1	„	1	„	9	„
17th	„	1	„	3	„	11	„
18th	„	1	„	—	„	6	„
19th	„	—	„	1	„	9	„

After the 19th cholera entirely ceased in the Queen. She continued at sea until the 8th of October, when she anchored in Port Mahon, and did not return to Malta until the disease had ceased there also.

In the Bellerophon, the first case occurred while she lay at Malta, on the 26th of June, then on the 27th and 28th there were many cases of diarrhœa, and, on the 29th, two cases of cholera. On the 2nd of July she went to sea: no new attacks occurred on this occasion, until the 8th, when there was one. On the 24th of July she anchored in Bighi Bay, but remained there only two days: no attack followed this visit. After cruising about in various directions, the crew having been in the enjoyment of the most perfect health for nearly two months, she returned to Malta harbour on the 9th of September. On that day, one case of rather a doubtful character occurred; but, on the 12th, there were four cases respecting which there could be no mistake, and, on the 13th, there were no fewer than thirty-one; still this did not prevent the vessel from going to sea. Subsequently, until the 19th, the daily number of attacks were as follow:—18, 8, 13, 8, 4, 2. After this, the vessel continuing on her homeward voyage, the disease became extinct.

In the Superb, the Ganges, and the Powerful, all line-of-battle ships, with their full complements of men, similar results took place. They contracted the disease in Malta harbour, but speedily got rid of it by going to sea. In the Frolic, of sixteen guns, a fearful outbreak of the disease took place on the 2nd of October in the same port. In two days she lost twelve men out of thirty-one attacked; still there appears to have been no hesitation in sending her to sea, where the disease almost immediately began to decline, and in the course of five or six days it entirely ceased.

Had these vessels not returned to Malta harbour, it might have been said, that on the first cruise all the men that were susceptible of the disease had been attacked, and, therefore, that it ceased not so much from their entering the purer atmosphere of the sea, as from a want of subjects with that particular kind of constitution on which the poison most readily takes effect.

The preceding facts, although many others of a similar nature, and equally conclusive as regards the results, might be adduced, are deemed sufficient to prove, that, so far as ships of war are concerned, it would be much more dangerous for them to remain in an infected port, with cholera on board, than to proceed to the open sea, where, far away from a locality in which the atmosphere is poisoned by the emanations from a crowded population suffering from the disease in all its various forms, it will, under ordinary precautions, rapidly decline, and in a very short time become totally extinct, provided the men are in the enjoyment of their ordinary health. In emigrant vessels, however, and in vessels carrying troops, where the ventilation is generally much more defective, it may possibly linger longer, as it did in the Apollo. Under these circumstances, therefore, it might be as well to adopt, in some respects, the views of Dr. Sutherland; namely, to land the passengers and crew on some small island or point of land where there were no inhabitants, and at a distance of at least ten or fifteen miles from an "epidemic centre;" whether that be supposed to originate from the accumulation of a morbific influence issuing from the soil, or from the accumulation of an infectious poison emanating from a multitude of human beings labouring under the malady. Hulks are not well adapted for the treatment either of infectious or epidemic diseases; besides being cold, damp, and comfortless, they invariably float at a low level, in a humid atmosphere, in creeks or tidal rivers, the shores of which abound in malarial exhalations, detrimental to health, and peculiarly favourable, if not to the production, at least to the propagation of all epidemic maladies.

The extension of an infectious personal emanation to places eight, ten, or even twenty miles distant from its source, will, no doubt, be regarded as a most preposterous proposition; yet, in the absence of all proof respecting terrestrial, or other non-personal aerial causes, it seems to be not altogether unworthy of consideration.(a) In the admirable Report, recently presented to the public by the Board of Health, it is stated, at page 40, that "in the space of twenty-four hours an adult person breathes thirty-six hogsheads of air;" now, admitting that, during several days or weeks in September, 1848, there were occurring daily, in and around Hamburgh, 500 cases of confirmed cholera, and twenty times the number of milder cases, in the form of disordered bowels, diarrhœa, spasm, and other anomalous

(a) A philosopher observes, "If a virus can be transmitted from the body through a few feet of air, we are not entitled, from the partial experiments hitherto made, to set any limits to the extent to which, under favourable circumstances, it may be conveyed through the same or other mediums. Common reason here concurs with our actual experience of the transmission of the virus of certain diseases in various ways and to remote distances."—*Dr. Holland's Medical Notes*, etc. P. 281.

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complaints, this would, at all events, give, as the product of 10,000 pairs of lungs, the enormous quantity of 360,000 hogsheads of infected air thrown into the local atmosphere daily, to say nothing of its being further contaminated by the emanations from the surface of the body, and from other natural and diseased excrementitious matters expelled from it. Let it, then, be supposed that the force of the wind, taking the mean of the changes as *nil*, or that its motion, in any direction, did not exceed a mile or two a day, we should thus have an atmosphere polluted to an extent far beyond what it is possible to imagine could occur from any corruption of its normal constituents, or from its being mixed with local emanations from the soil. How long a portion of the atmosphere so contaminated may remain unchanged, or to what distance it may be conveyed, there is no means of correctly ascertaining. It is not necessary to suppose that the disease was in this manner introduced into England, because, as will presently be shown, it may have been conveyed across the German Ocean in a different form. From the circumstance of cholera having appeared in several ships of the Mediterranean squadron before they had any communication with the shore, there is, however, reason to believe that an atmosphere, charged with the specific virus emanating from a population labouring under cholera and choleraic diarrhœa, may at all events prove effective at the distance of several miles from an infected locality, thus rendering legislation with regard to quarantine restrictions an extremely difficult question.

With respect to the conveyance of the specific poison in contact with inanimate substances, such as articles of clothing, the introduction of the disease into Malta, in 1837, as detailed by Sir John Liddell, Inspector of Hospitals at Greenwich, affords a good example. He observes that, "during the early part of the above year cholera raged with great virulence in Sicily and Naples; consequently, vessels arriving at Malta from the latter port, were placed in strict quarantine. In the early part of June there were generally from ten to twenty of these vessels anchored head and stern in a line, and secured to the shore on the Floriana side of the quarantine harbour; and although no cases of cholera had occurred in them subsequently to their arrival in Malta, still their crews, by the regulations of the port, were required to get the whole of their wearing apparel and bedding on deck, and to expose them thoroughly to the air. Immediately over the place where they lay, is situated the Ospizio, an extensive poor-house, which at that time contained about 700 aged persons of both sexes, among whom, on the 9th of June, the disease first made its appearance. On that day two fatal cases occurred, and it is important to remark, that both patients occupied the apartments in the building nearest to the Neapolitan vessels, from which, indeed, they were only separated by a wall perforated by loop-holes for the admission of air." On the following day, the 10th, there were 5 cases; on the 11th there were 4; on the 12th, 12; on the 13th, 14; on the 14th, 11; on the 15th, 32; on the 16th, 53, and on the same day a case occurred in a Turkish corvette, which (eight days previously) had arrived from Tunis, and anchored near to the line of Neapolitan vessels; but being also in quarantine, she had not had any communication with the other vessels in the harbour or with the island. On the 17th, 44 cases occurred in the Ospizio: making the total number of attacks since its eruption, 180, and the total number of deaths, 114; and yet up to this date not one case had occurred on the island beyond the walls of the building. This, as regards the supposed origin and spread of the disease from an epidemic constitution of the atmosphere, it is important to remember; for if its eruption and extension depended entirely on aërial causes, it will be extremely difficult to explain why it did not appear in other parts of the island.

On the last-mentioned date, however, (viz., the 17th,) the disease at length broke out in Floriana, one of the suburbs of Malta. A soldier of the 95th Regiment, which occupied barracks contiguous to the Ospizio, and a woman residing in a street also in close approximation to the same building, were its first victims. On the 18th there were fifty-five new cases in the Ospizio, and one outside in a detachment of the Royal Artillery, the patient having been exposed to the exciting cause, while on fatigue duty in Floriana. On the 19th, the attacks in the Ospizio amounted to 60; and on the 21st to 57. On the same morning the disease made its appearance in Her Majesty's steamer Hermes, which had arrived from England *vid* Gibraltar on the 17th, and anchored near to the Turkish corvette, and almost in contact with the Neapolitan vessels.

Now, in this instance, how are we to reconcile the eruption and spread of the disease with the presence of a general aërial cause—an epidemic constitution of the atmosphere? Cholera, as we have seen, existed in Naples; but, up to the day on which it broke out among the paupers in the Ospizio, not a case had made its appearance in Malta. Did the cause, then, approach the island from some source exterior to it, and, after passing by the vessels in the harbour, first impinge itself against the walls of the Ospizio? or was it a production of the soil, or of the atmosphere within the building, which, by some peculiar unknown influence, became attached to the spot for the space of at least eight or nine days subsequently to its evolution? Was the eruption of the disease in the Ospizio, in the Turkish corvette, and in the steamer Hermes—the three points nearest to the vessels which had come from Naples, where the disease did exist—merely the accidental effect of a general atmospheric cause, and in no way connected with the Neapolitan vessels? To any of these questions it would perhaps be difficult to append a satisfactory answer,—but, as we have no reasonable proof that there ever did exist a specific condition of the atmosphere capable of producing cholera, or that there ever was evolved from the earth, or engendered in the air, a cause capable of producing it,—and as the spread of the disease subsequently to its evolution was most distinctly but little, if at all, influenced by atmospheric currents, it seems as if we might as well attempt to account for the appearance of the disease in Malta by the presence of some morbific agent, which had issued from the crater of the neighbouring volcano; although, even in that case, it would still be difficult to understand by what law or influence it acquired the power of attaching itself to a particular spot, while the air in which it was contained swept rapidly away to leeward. It is not necessary again to refer to the supposed co-incidental eruption of the disease with the arrival of the vessels from Naples, or to the singular, or rather, the significant fact of its first attacking the three different and distinct communities of men nearest to them; for, let us reason as we may on these facts, there is, if we reason fairly, but one conclusion that we can come to at last, and that is, that the germs of the disease were shaken from the clothing or the bedding of the Neapolitans, that it was wafted in through the loop-holes of the Ospizio upon the aged inmates, producing several cases almost simultaneously, in the first instance, by which the infectious virus was again produced, and speedily disseminated by the production of other succeeding cases, to all parts of the building, and then in the same manner, after a lapse of eight days, to the suburb of Floriana, to Valletta, to the shipping in the harbour, and subsequently to almost every town or hamlet on the island, and, at length, after a lapse of time, to the adjacent island of Goza.

There is yet another circumstance which requires to be explained by those who attribute epidemic cholera to the presence of a general atmospheric cause; and that is why, in insular positions, and in certain countries in which the disease is not indigenous, it generally, if not invariably, first makes its appearance in seaport towns. In this country it has twice broken out in or near ports on the north-eastern parts of the island, and in London. In America, it first appeared in New York and New Orleans; in Canada, at Quebec and Montreal; in Nova Scotia, at Halifax; in Cuba, at the Havannah; in Malta, at Valetta; and in every instance these several ports were, at the time it appeared, in direct communication with other ports in which the disease existed, and from which suspected vessels had arrived.

The constancy of these results certainly forms a singular contrast with those which might be expected to occur from an agent driving with the wind in every direction over the surface of the globe.

Cholera, or the cause of cholera, until very recently, had never, so far as we know, reached the West Indian islands; at length, however, it manifested itself in Cuba; and in September last it was extremely fatal on the shores of the Spanish Main, particularly at Chagres. Where it would wander to next no one could tell; but there was no reason why it should not visit Jamaica. Around this island there are numerous seaports, and there are towns and villages at no great distance from the shore; each of these was equally exposed to be assailed by an aërial epidemic cause, if it came from Chagres, or from any other place exterior to the

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island; and if it came from sources within the island, it was as likely to be evolved in one town as in another. Thus we shall suppose the people of Jamaica not believing it possible to protect themselves against the invasion of a general atmospheric cause, which had spread with such destructive force over almost every other region of the world, adopted no precautionary measures, but were calmly awaiting its arrival, when a steam-packet, after a voyage of two-and-a-half days from Chagres, steered into Port Royal. Two passengers landed from this vessel, who subsequently, it is stated, suffered from intermittent fever; there was also some foul linen landed: she took in a supply of coals, and, after enjoying free pratique for about four-and-twenty hours, again went to sea. A few days after her departure the inhabitants of Kingston were astounded by a report that the same destructive agent which was desolating Chagres had gained a footing on the island. Now, of all the ports and creeks which indent the shores of Jamaica, it will, to those who adhere to the theory of an epidemic constitution of the atmosphere, surely appear somewhat singular that Port Royal should be the one in which the disease first made its appearance, and that the first cases should occur in two houses at no great distance from the wharf where the steamer took in her coals, and only a few days after she left the port. It is not necessary to offer any opinion as to how the epidemic cause reached Port Royal; the facts were as they are here stated. Some may suppose that it came from without, and that its entering the same port with the steamer was a mere coincidence, and that it only obeyed a particular law by "localising" itself for eight days at Port Royal before it passed on to Kingston; others may suppose that it was developed on the spot, and subsequently, a week later, at Kingston, which is six miles distant; and then, in the course of another week, at Spanish town, which is still further inland; there are many who will in some way or other attempt to connect the epidemic cause which subsequently extended over the whole island, with the filth which has been the opprobrium of Port Royal for at least the last two hundred years; and there may be a few who will attribute to the steamer the introduction of the disease into Port Royal, supposing that the infectious poison was conveyed from Chagres in the form of fomites, or that it emanated from some person or persons in the steamer, who, at the time of her arrival, laboured under undeveloped cholera, or who were suffering from choleraic diarrhœa.

In another part of this paper an attempt has been made to show that the laws which govern the epidemic spread of small-pox, are the same as those which govern the epidemic spread of Asiatic cholera; but, when the latter, as regards these phenomena, is compared with yellow fever (the infectious nature of which will hardly now be disputed) the similarity becomes still more striking. For instance, in their epidemic form, they both seem to originate from one, or at all events from a few cases occurring sporadically, and spread to places far distant from the site of their origin; their extension being greatly facilitated by intercourse, if not entirely dependent on it. They both infest low, damp, dirty localities, and in proportion to their rifeness in such places, so are their virulence and reproductive powers increased. They both speedily exhaust towns or localities of susceptible persons, when they gradually decline, and become extinct,—or pass on to other places not far distant. In both there appear to be occasionally partial remissions or lulls, and aggravations in the force of the epidemic, as if from some contingent circumstance, the infectious principle alternately lost, and acquired an accession of power. This may also happen when a number of susceptible persons arriving from a healthy district, are suddenly placed within the range of the poison in the infected locality.

Both epidemics are frequently preceded by what may be termed a period of maturation, during which the morbid action, weak at first, gradually increases in force. Before an invasion of yellow fever, it is by no means uncommon for diarrhœal complaints to prevail, together with an aggravation of the common fevers peculiar to the locality. Cholera has also almost invariably had its precursors in the form diarrhœa, cramps, catarrh, and other anomalous ailments. Again, when a case of the former is attended with black vomit, it is time to adopt precautionary measures against contamination; for, if not before, it then, most indubitably, ought to be suspected of infectious properties: and, in the same manner, when a case of choleraic diarrhœa occurs with collapse, cold breath, and the characteristic blue skin, there is every reason to fear it has also acquired a similar character. Numerous sporadic cases of both diseases may occur, and no epidemic follow; the peculiar emanations in these instances become scattered and lost, without producing any effect, or, at most, not causing more than a few cases of slight fever in the one instance, and of diarrhœa in the other. Still, whether yellow fever unattended by black vomit, or cholera in its milder form, may not have infectious properties is a question respecting which we have not sufficient data to give an opinion.

In conclusion, from all the facts now known respecting this disease,—epidemic cholera,—it is presumed the following deductions may be fairly made, viz.:—

As cholera does not, as a general rule, extend with, and in the direction of, atmospheric currents, breaking out consecutively at shorter or longer intervals of time, according to the distance and the velocity of the wind, in places situated to leeward of those in which it first makes its appearance, and over which places the same aërial current must necessarily pass; but, on the contrary, as it has generally in its epidemic course progressed with as much rapidity in a windwardly as in a leewardly direction, or in any other direction, it becomes clearly evident, that the disease cannot be the product of any cause generally diffused throughout the atmosphere.

As cholera, both in this country and in America, as well as in all European and American islands, where it is not indigenous, has invariably made its appearance first in seaport towns which were at the time in direct communication with other distant towns or ports in which the disease existed,—as it has never broken out in the centre of any one of these islands, and extended to its circumference, —in the interior of America, and extended to its exterior,— we are bound to conclude, that it has never acquired epidemic force in either of these countries, or in the islands adjacent to them, unless when introduced by vessels coming from infected ports.

This conclusion appears to be inevitable; because, even admitting that at all times, and on every occasion, it has been the product of an aërial cause—an epidemic constitution of the atmosphere—it will nevertheless be impossible to explain, by any known rule or law in physics, why that peculiar condition or constitution of the atmosphere, whether it came from seaward, from desolate tracts of land, —whether it was generated in the air at the place, or escaped from the earth, should invariably first manifest itself in seaport towns, and not in other towns on the sea shore, in towns more inland, or in the interior, these being equally exposed and equally liable to be the first recipients of any general epidemic influence or cause evolved from the earth, or moving in connexion with the atmosphere.

Like measles, small-pox, scarlatina, and yellow fever, cholera occasionally occurs sporadically; but whether from causes internal or external to the body there are no means of ascertaining.

It spreads epidemically only by an infectious principle, which, it is assumed, is generated and evolved to a greater or less extent in every case, whether or not occurring sporadically; the virulence of the poison being in a direct ratio with the amount of morbid action and its force, or reproductive power, in proportion to the number of cases contained within a given space.

The exciting virus, where the cases are numerous and the ventilation defective, may take effect at the distance of one or two miles, if not further; but, in contact with inanimate substances it may be conveyed to the distance of many hundred miles, provided the transit be accomplished within the space of about ten days.

Seeing that it has never made its appearance in this country until after it had for some time—for two, three, or four months—prevailed on the Continent, there is every reason to believe that in future its introduction may be prevented by placing judicious quarantine restrictions on vessels coming from infected ports; and further, as its powers of reproduction differ in different places, as they increase in a direct ratio with the increase of cases; and, again, as the number of cases increase in proportion as the inhabitants are suffering from mental and physical depression, it becomes evident that to prevent, or at all events to retard, the extension of the disease and diminish the number of cases in those countries into which it has been introduced, it will be necessary to limit as much as possible the intercourse between a healthy and an infected locality,—to prevent all unnecessary intercourse between those that are suffering from the dis-

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ease and those that are still free from it, and to improve the healthy condition of the inhabitants of places situated at low levels by the removal of accumulations of filth, by improved ventilation in their dwellings, and by an increased amount of wholesome nutritious diet.

PRACTICAL OBSERVATIONS
ON THE
TREATMENT OF PERMANENT STRICTURE OF THE URETHRA.

By ROBERT WADE, F.R.C.S.,
Senior Surgeon to the Westminster General Dispensary.

[Continued from page 618.]

Many will, doubtless, be a little surprised at my having ventured, in some of the cases, to apply the caustic alkali daily. It must, however, be borne in mind that such cases were old strictures of a cartilaginous hardness, which are seldom much predisposed to spasm. The principal suffering of patients with such obstructions, is usually caused by the straining efforts of the bladder to force the urine through a highly contracted unyielding channel. The diseased tissue itself has commonly but little sensibility; indeed, the free application of potassa fusa to its interior seldom causes pain worth mentioning. It is in these cases where, from the strong contractions of the bladder, with its muscular power frequently increased to a great extent, and where there must be constant apprehension of the yielding of the urethral canal behind the obstruction, that the caustic alkali will be found truly valuable. In such cases as these, when once the armed bougie has fairly entered the gristly mass, to obtain success, the caustic must be boldly and freely used. In concluding this subject, it may be as well to state that the method of treating strictures by potassa fusa was brought forward by me in a paper read at the Westminster Medical Society on the 15th of February, 1840, having then for several years successfully employed that remedy in the treatment of stricture. My object in that paper was principally to show the great value of potassa fusa in impermeable strictures, and at the same time to define, with some degree of precision, the nature of the cases in which it would prove useful. I can truly say, that subsequent and far more extensive experience has increased my very high estimation of the admirable effects of the caustic alkali in the relief or cure of urethral obstructions. No other remedy I have ever employed has afforded me so much satisfaction; and it has very often surpassed my expectations in the speedy relief it has afforded in cases of the worst description. Another method of treating the more obstinate forms of urethral obstructions has been revised and improved by Mr. Stafford, who has strongly advocated their division from within, by an instrument well known as the lancetted catheter. When a stricture is beyond the straight portion of the urethra, this method, although it appears to have been frequently successful in Mr. Stafford's hands, must surely be somewhat hazardous; for, where there is much condensation at the seat of disease, the most expert anatomist could scarcely be certain of cutting in the right direction. The instrument has, in fact, sometimes taken a wrong course, and serious accidents have occurred—among others, extravasation of urine. It may be added, that, when this operation has proved so far successful that the bladder has been fairly reached, it has often been found impossible to preserve the advantage thus acquired, the obstruction having returned as bad as ever.

Although in strictures at the curved portion of the urethra I should not venture to adopt Mr. Stafford's plan, yet, when in the straight part of the canal, in case of failure with potassa fusa, I should not hesitate to use the lancetted catheter, as the finger could then ascertain with tolerable precision that the instrument was properly directed. Division of strictures by an opening in the perinæum, called "perinæal section," is the only method of treatment that remains to be considered. I cannot but think that this operation has of late been too frequently performed, having been rather the fashion. It has, however, always appeared to me to be an operation too perilous as well as unsatisfactory in its results to justify its performance except as a last resource. In the most common method of performing this operation, a staff or silver catheter is passed as far as the stricture, and pressed firmly against it; an incision being then made through the perinæum upon the point of the instrument, the knife is carried backwards so as to divide the obstruction and to open the urethra beyond. A gum or silver catheter, commonly the former, is then introduced, and fixed in the bladder. In cases where the urethra, to some extent, at the seat of disease is converted into a gristly mass, it cannot be expected that the passage made by the knife can be exactly in the track of the original channel. It is, at all events, just as likely to be effected through the diseased tissue by the side of the natural passage; and it will often be very difficult to keep the new one sufficiently open for the free evacuation of the urine. This tendency in the new channel to recontraction is not, however, all that is to be feared, for this operation has not unfrequently proved fatal. That hæmorrhage may sometimes occur to a great extent, and even cause death, we have evidence in some cases operated upon by Mr. B. Cooper, which have been recorded in Guy's Hospital Reports. In the first case, the man bore the operation well, but secondary hæmorrhage occurred to an extent that had nearly proved fatal. In the second case, there was considerable bleeding during the operation and afterwards; but it was eventually stopped by pressure on the pudic artery. In the third case, hæmorrhage proved fatal a day after the operation. In the remaining case, it is stated, that a considerable quantity of blood was lost during the operation; the patient, however, eventually recovered. In some instances in which this operation has been had recourse to, constitutional irritation of a grave character has supervened, the patients having gradually fallen into a low typhoid state, and died a few days after its performance. Valuable information on the results of perinæal section will be found in some excellent observations on that method of treatment, by Mr. Henry Smith, in Nos. 553, 556, and 557, of the *Medical Times*. In eleven of the cases recorded by Mr. Smith, the operation was had recourse to in impermeable strictures, the result having been fatal in four out of that number. In the remaining four cases, the obstructions were permeable, and Mr. Syme's operation was performed, the strictures having been divided on a grooved staff previously passed into the bladder. In one of these cases, the operation proved fatal a fortnight after division of the stricture. In the *Lancet* of June 29th, 1850, are recorded three cases in which Mr. Syme's operation was performed by Mr. Cock, division of the stricture having in one instance been followed by death. Of the fatal case we are informed, that "the patient was taken to bed in a singularly depressed condition. The loss of several ounces of blood increased the prostration, from which he never rallied. The next day, his irritability became extreme, and he could not bear the pressure of the catheter. Symptoms like those of phlebitis soon occurred, he continued to get worse, and died five days after the operation." It was found, on *post-mortem* examination, that the edges of the wound in the perinæum were sloughy, and all the veins forming the left prostatic plexus were more or less filled with coagula, in some parts adherent to the lining membrane of the vessels, but no pus was detected. Some of the veins constituting the right plexus were likewise inflamed. Phlebitis was at that time prevalent in the hospital. A case of perinæal section, by Mr. Gay, which proved fatal on the fifth day, is recorded in the *Medical Times* of Nov. 5th, 1850. That perinæal section, as commonly performed, is somewhat perilous, we have of late had sufficient proof. It must also be admitted, that no surgeon, by the performance of this operation, can ensure a patient against a return of his stricture. We have some valuable information upon this point from Mr. Guthrie, in his work on "Diseases of the Bladder and Urethra." The following statement is instructive:—"In the course of the last thirty years, I have had many opportunities of dividing, and more of seeing the urethra divided by others, for the relief or cure of persons labouring under strictures. In most of these cases, the disease has returned in the course of a few months, or would have returned if the patients had not made use of the solid sound regularly every five or six days to prevent it. In the year 1816 I saw the late Mr. Pearson divide a stricture at the part where the scrotum begins, for the extent of an inch, or as much as was hard and gristly. The patient got quite well, and could pass a bougie with ease; but he subsequently neglected himself, and one year afterwards I saw him as bad as ever. In some cases, however, the results of this operation have been very satisfactory, there having been but

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little disposition to a return of the contraction." Surely no surgeon of ordinary judgment would think of resorting to this operation except in cases of emergency, or as a last resource when all other means of relief had been tried and failed. In a late work by Professor Syme, that gentleman, after having strongly condemned the usual method of performing perinæal section, recommends division of urethral obstructions upon a grooved director, which of course facilitates the proceeding. Mr. Syme describes his operation as "a simple and easy mode" of curing permanently the most difficult cases of stricture of the urethra, and unattended with danger to life. This operation is of course only applicable to permeable obstructions; but it appears that Mr. Syme does not believe in the existence of a stricture impermeable to instruments, as is evident in the following passage from his work: "The operation by external incision hitherto employed has been resorted to as the refuge of awkwardness or failure in the introduction of instruments, there being no truly impermeable stricture."—P. 57. That Mr. Syme's operation is not always a safe one has been sufficiently proved by two published cases, attended with fatal results. At one of those cases I was present during the operation, which could not have been more skilfully performed, a No. 6 grooved staff having been previously passed into the bladder. The patient undoubtedly died from the effects of the operation within a fortnight from its performance. In Mr. Cock's fatal case, phlebitis occurred; but it is stated that "the man was taken to bed in a singularly depressed condition," and that "the loss of several ounces of blood a few hours after the operation increased the prostration, from which he never rallied." In one of Mr. Syme's cases, that gentleman acknowledges the result to have been all but fatal from erysipelas. We are informed by Mr. Syme—"1st. That division of a stricture by external incision is sufficient for the complete remedy of the disease in its worst form; 2ndly. That in cases of less obstinacy, but still requiring the frequent use of the bougie, division is preferable to dilatation, as affording relief more speedily, permanently, and safely."—P. 58. To the best of my belief, I was the first surgeon who ventured publicly to question the soundness of these conclusions, and expressed my doubts as to this operation affording a permanent cure of stricture for the following reasons:—1st. That the thickened tissue is not removed by the knife in Mr. Syme's method any more than in the one which had been commonly adopted in impermeable strictures; 2ndly. That although a grooved director in the new method is passed into the bladder as a guide to the knife, yet the natural urethral membrane can form but a very small portion of the enlarged passage, the greater part of the new channel being necessarily made through the condensed tissue at the seat of disease.(a) It appears that Mr. Syme has hitherto performed this operation without any fatal result; but that his views regarding its curative powers are somewhat changed, is evident from the following passage in the last July number of the *Monthly Journal of Medical Science:* "It was for the relief of those obstinate and contractile strictures that I some time ago recommended external incision upon a grooved director conveyed through the seat of contraction, on the ground of its being absolutely free from danger to the patient's life, certain to afford complete relief to all the symptoms of the disease, and probably sufficient in general, if not always, to protect him from future inconvenience." If a bougie be permitted to remain in these "obstinate, hard, contractile strictures" but for "one or two seconds," then, indeed, the knife must often do the work which the bougie is not permitted to accomplish. I must once again quote Mr. Syme: "It is now universally admitted, that the bougie acts by exciting a degree of absorption of the thickened texture, which occasions the contraction and induration concerned in the formation of stricture. To produce this, the instrument should be employed with the utmost possible gentleness, and should not be allowed to remain in the urethra more than one or two seconds." There is scarcely, I believe, any other surgeon experienced in the treatment of stricture who would not protest against such a frivolous use of the bougie. Has that useful instrument no mechanical powers of action in stricture? Let us hear what were Mr. Hunter's views of this instrument. The following are his words: "The cure by dilatation is, I imagine, principally mechanical when performed by bougies, the powers of which are in general those of a wedge. However, the ultimate effect of them is not always so simple as that of a wedge upon inanimate matter, for pressure produces action of the animal powers either to adapt the parts to their new position, or to recede by ulceration, which last is not so readily effected." It has been shown that all surgeons have not had the same good fortune as Mr. Syme in their operations for division of strictures by perinæal section, when performed according to his method. The mischance which has occurred to others may soon happen to him. However skilfully perinæal section may have been effected, who can insure his patient from the occurrence of erysipelas or phlebitis? What degree of human care or foresight can so brace up the cords of life to the enduring point as always to guard against a fatal prostration? It may be that a patient has to submit to perinæal section, whose vital powers have been so depressed by long suffering, that the loss of a few ounces of blood will be sufficient to turn the scale against him. With the late calamitous terminations of this operation, like beacon-lights, to warn us of its dangers, I cannot but think that we are conscientiously bound by every means in our power to relieve a stricture-patient before having recourse to the knife. There are some remarks of the late Mr. Aston Key regarding operations, that we shall all do well to bear in mind. They occur in Guy's Hospital Reports. When alluding to division of the prepuce in phimosis, Mr. Key observes: "As the knife is at all times but an indifferent substitute for skill, and should ever be avoided if possible, the circumstances rendering it unnecessary are not beneath consideration." Taking these words for our text, let us endeavour to ascertain under what circumstances the surgeon may be justified in submitting a patient to perinæal section; for there are, undoubtedly, cases, —fortunately of rare occurrence,—in which that operation will afford the only chance of relief; and there are others, equally rare, where it may probably be the most judicious proceeding. In some strictures, from mechanical injury of the urethra, followed by more or less sloughing of the injured parts, a hard, gristly cicatrix will often be left, while the greater portion of the urine may be passed through fistulous orifices in the perinæum. In such a case dilatation, as well as caustic, will very probably fail in the best hands, and division of the obstruction, by perinæal section, be the only chance of relief for the patient. Where the urethra has been divided by a wound in the perinæum, a hard cicatrix may be formed at the seat of injury, and the contraction cannot be kept sufficiently open by other means to ensure the patient from danger, division by the knife may become advisable, although that proceeding will not always be successful; for so strong a tendency have cicatrices to contract, that, although great care be taken, by constant introduction of instruments, to preserve the advantage which has been gained, yet the stricture may return nearly, if not quite as bad, as ever. A case of hard, contractile stricture, not the result of mechanical injury, which has long remained impermeable to all milder means of treatment, and where the patient's general powers are suffering severely, the operation by perinæal section may, probably, be advisable. I believe, however, that such instances will be of rare occurrence. As a proof of what can be accomplished by dilatation, when properly and perseveringly employed, we have a striking instance mentioned by Sir B. Brodie in his valuable lectures on the Diseases of the Urinary Organs. In that case the patient had a stricture which was surrounded by a mass of hard substance, that could be distinctly felt in the perinæum apparently from an inch to an inch and a half in length. The stream of urine was of the smallest size. For many years before the patient applied to Sir B. Brodie no instrument had been passed into the bladder. The method adopted in this case was firm pressure, made by a solid silver sound, against the stricture. Sir B. Brodie recommends the pressure to be continued from five to fifteen minutes, or even longer, according to circumstances; and the process to be repeated in two or three days. In the instance just described, Sir Benjamin informs us that he succeeded; but not until he had persevered in it for more than a year. When retention of urine occurs in a patient who has long suffered from stricture, and it becomes necessary to relieve the bladder by an operation, all other means having failed, division of the obstruction by perinæal section may sometimes be the best procedure to adopt. If the stricture for some length of time previous to the attack of retention should have been impermeable, and the urethra be thickened to a considerable extent, then division may be the most judicious course to pursue. If, on

(a) *Vide* the *Lancet*, January 26, 1850.

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the contrary, retention should take place where the stricture has previously been permeable, even to the smallest instrument; or, if impermeable, and it be of no great extent, I should generally prefer relieving the patient by puncturing his bladder, and afterwards dilating the obstruction. The bladder can in general be punctured through the rectum, except where the prostate is much enlarged. Several cases of retention from stricture have been recorded by Sir E. Home, in which he punctured the bladder by the rectum, and afterwards readily dilated the obstruction, which had previously been impermeable. In a case of retention from stricture of forty years duration, complicated with an enlarged prostate, I punctured the bladder above the pubes, instead of having recourse to the more formidable operation of perinæal section, which I do not think the man could have borne, as he had long suffered from congestion of the brain, and was partially paralytic. In that case no instrument had been passed through the stricture for many years, although frequent attempts had been made for that purpose by various surgeons. Within a month from the time of the operation I could pass a No. 6 bougie into the bladder. The *Lancet*, of 13th July last, contains the report of a case of retention of urine from stricture, in which Mr. Gay punctured the bladder through the rectum, in preference to the performance of perinæal section. From all I have seen and read of division of strictures by perinæal incision, from my knowledge of the powers of potassa fusa in the removal of urethral obstructions, there are but few cases of retention of urine from that disease in which I should not prefer puncturing the bladder. Let me add, however, that this operation will very rarely be required in cases of retention, as most of them will yield to the free use of opium. We have, also, a powerful agent in chloroform, which has, in several instances enabled the surgeon to relieve his patient at once by the introduction of the catheter, although, previous to its administration he had failed in every attempt to pass that instrument. It has fallen to my lot to have seen a great many cases of retention of urine, but in two instances only have I been compelled to puncture the bladder. When the effects of the caustic alkali in the cure of strictures become generally known, I venture to predict that their division by the knife, except when the result of mechanical injury, will not often be required. From Mr. Syme's position as a teacher, his strong recommendation of perinæal section in strictures which do not readily yield to dilatation, appeared to me as being so likely to lead to fatal results in the hands of others, that I have considered it a duty to comment freely upon his views relative to the treatment of urethral obstructions. With regard to the somewhat startling assertion, "that there is really no impermeable stricture, except from the awkwardness of the surgeon," I have only to observe, that cases of stricture occasionally occur in this metropolis, in which surgeons of the highest rank not unfrequently fail in their attempts to pass an instrument through the obstruction. In a hard gristly stricture, which has long been impervious to instruments, I can readily conceive it possible for Mr. Syme, with a very small grooved director, or sound, gradually to find his way to the bladder; but it appears to me that such an instrument will be more likely to pass by the side of the obstruction, where there is least resistance, than through it. I have seen but two instances of stricture in the female urethra, each within a quarter of an inch of the external orifice, and which readily yielded to the introduction of steel sounds. Although in these observations I have dwelt more particularly upon the use of caustic than on other means, well knowing that much unjust prejudice exists, both in the Profession as well as the public in general, against that remedy, it has been especially my object to avoid advocating any one method of treatment exclusively. It cannot be expected, that the surgeon who adopts a particular mode of treatment in all forms of urethral obstruction, will meet with the same degree of success as one who, having a variety of resources at command, is enabled to select such as may be most suitable to each individual case. Dilatation will probably effect a permanent cure of stricture in its early stage, before the occurrence of much induration. That method, when properly conducted, will also prove successful in the relief of a great majority of strictures, notwithstanding the existence of much gristly hardness at the seat of disease. In such cases, however, there will be more or less tendency to recontraction; for, although the bougie may dilate the constricted channel to its healthy calibre, as indurated tissue is not easily removed by the absorbents, the obstruction will commonly return, unless prevented by an occasional introduction of dilating instruments, the use of which may sometimes be necessary during the patient's lifetime. Caustic, when judiciously used, will often prove highly serviceable in facilitating dilatation; and in many cases I know that the application of potassa fusa will be successful in the entire removal of indurated strictures, effecting a permanent cure of the disease. It is, however, in the treatment of obstructions impermeable by instruments that in my estimation consists the indisputable value of the caustic alkali, as it has enabled me to succeed in the relief or cure of many cases in which dilatation had failed after long trial in very skilful hands, and when the only hope held out to the patients was perinæal section, an operation which, I repeat, should never be performed whilst there remains a single chance of a successful result from less hazardous measures. Let not these observations on perinæal section be misunderstood; for, although I have used my best endeavours to dissuade surgeons from having recourse to its performance, except in the very few cases of stricture that cannot otherwise be more safely relieved, it has been far from my intention to say anything in disparagement of operative surgery, which, when ably and judiciously employed, amply merits, and will ever obtain, the admiration of all who can appreciate the untiring industry and high mental qualifications necessary to form the accomplished operator. By gentleness and perseverance, however, in the means which I have ventured to recommend in bad cases of stricture, the surgeon may rest assured he will generally be successful without resorting to the knife. It is true, that in the unostentatious exercise of his art, he cannot hope to obtain that applause which the dexterous performance of an operation is sure to excite, yet his reward will be no less enviable, and far more lasting—an approving conscience!

68, Dean St., Soho.

ON THE

EFFICACY OF THE TONIC AND SEDATIVE PLAN OF TREATMENT

IN

CASES OF FEVER AND DISTURBED NERVOUS FUNCTIONS AFTER DELIVERY.

By T. W. GARLIKE, Esq.

In a former paper I endeavoured to show that a great proportion of cases, vaguely designated "puerperal fever," are not to be regarded as of sthenic or inflammatory character, dependent upon increased vascular action; but, on the contrary, that they are simply attributable to a morbid sensibility of the nervous system, resulting from depression of nervous energy. I am now anxious to illustrate my views on this subject still further; and, as the case I am about to relate is highly corroborative of the views I have advocated, I shall give it in detail.

The case runs thus:—Mrs. ——, aged 43, middle-sized, and of robust appearance, requested my attendance, being in labour, (her first pregnancy,) on the evening of the 4th July last. Her pains were, to all appearance, of a useful "bearing down" character. On making an examination I found the os tincæ had dilated just sufficiently for me to ascertain that it was a vertex presentation. Having represented to Mrs. —— that my services were not required for the present, I left; at the same time I instructed her nurse to call me if any change manifested itself during the night. My patient resided within a short distance of my house. On the morning of the 3rd, Mrs. —— described the pains which had followed up through the previous night as having been of a severe kind, but not forcing. On making an examination I found that the labour had not made much progress; during the day she was tolerably free from pain, and took nourishment; but at night, her pains having returned with more severity, my services were again requested. I stayed through the night; there were occasional active pains, but not sufficiently forcing to be efficacious. At 5 a.m. of the 4th, gave a draught of sulphuric ether and camphor mixture, with 25 drops of laudanum. Visited my patient again at 10 a.m.; the draught had produced some sleep, from which she was refreshed; but, as the day advanced, she manifested symptoms of great prostration; the countenance was anxious and solicitous; skin hot; pulse frequent, small,

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and irregular; tongue dry, creamy and brown down the centre; tenderness over the hypogastric region, with inability to pass urine.

The symptoms were relieved considerably by the use of the catheter, which was resorted to frequently during the labour.

Ordered saline febrifuge every six hours.

In the evening she appeared much better in all essentials; the temperature of the skin was reduced, tongue moist, bowels acted upon twice, circulation more quiet, and the countenance and conduct more indicative of hopefulness. Although my patient had now been ill two days and nights, during which time she had borne a large proportion of good forcing pains, still, on making an examination, the labour had not advanced much, the os tincæ, though certainly more dilated and yielding, was, nevertheless, rigid, and the lips thick; the head had made some trifling descent, but had not passed the true pelvis, neither did the pains (which were severe) appear to exercise any bearing-down influence upon it. The great impediment appeared to be the rigid, unyielding condition of the osseous structure of the mother, and the highly organised condition, as well as great development of the fœtal cranial bones, which were firmer than I ever met with; there was also a want of room on the antero-posterior diameter of the pelvis.

In carrying out the examination, which was conducted with great care, a symptom presented itself which gave me some concern: I detected crepitation over a limited portion of the mucous membrane in the perineal aspect of the vagina; when a pain was on it was clearly made out, and it instantly conveyed to my mind the supposition that it might be, as in other tissues when subjected for a long time either to increased action of the capillaries or the opposite state of these vessels, congestion, the first symptom of sloughing taking place, or the formation of pus.

Looking upon my patient as being in a condition to require watching, I stayed the night, hoping some favourable change might show itself before morning. She stated that she had not felt the movements of the child for some hours.

Ordered a draught, with 30 drops of laudanum.

About midnight, Mrs. —— began to exhibit symptoms of restlessness and delirium, and the circulation began again to take on the characteristics of exhaustion by increasing rapidly its frequency. There now appeared from the vagina a copious discharge of dark, fetid, grumous water, which satisfied me of the death of the fœtus. Gave a draught of ammonia, ether, and morphia. She slept at intervals till the morning of the 5th, when her exhausted condition determined me to set about completing delivery without further delay; but prior to deciding upon this step, I consulted with my neighbour Mr. Ayres as to the best mode of accomplishing the object. At this time, Mrs. —— was exhibiting all the symptoms of exhaustion: the pulse at the wrist was 160; tongue parched and brown; skin hot, and of a brick-dust colour; constant delirium of a low rambling kind, interrupted occasionally by lucid intervals, when she implored that decisive steps for the completion of the labour might be adopted. The os tincæ was thoroughly dilated, but the head had not made any considerable descent; the mischief which was being produced by this long-continued pressure on the soft parts was everywhere to be detected; the crepitation which I described as existing, on the 4th, in the vaginal mucous membranes, had now resulted in a fissure, an inch and a half long, through the mucous membrane, extending into the cellular tissue. The perinæum was intensely swollen and covered with vesicles, involving the whole margin of the anus; the bladder had been entirely dependent on the use of the catheter since its first introduction. Feeling satisfied that the fœtus was dead, and the case being one which called for immediate interference, craniotomy suggested itself to me as the only practice applicable: with such a rigid and inflamed condition of the soft parts, I feel certain the forceps could not have been successfully employed in the hands of the most accomplished obstetric practitioner. At 11 a.m. I commenced the operation of craniotomy, which occupied an hour. My patient, at intervals, manifested perfect consciousness, at other times was lost to all around her. A disposition to flooding showed itself after delivery, which induced me instantly to introduce the hand into the uterus, and remove the placenta, as I was sensibly alive to the feeble powers of my patient. The fœtus exhibited the first symptoms of decomposition. Ordered a draught, with two drachms of sulphuric ether and forty drops of laudanum in a little camphor mixture. In the evening, the nurse reported that she had slept during short intervals, but was only sensible on being especially roused to reply. Ordered a draught at bed-time, with one grain of morphia and two drachms of sulphuric ether in camphor mixture.

6th, 8 a.m.—Had passed a restless night. Pulse 160; tongue dry; delirium constant, of a muttering kind. Ordered a mixture with camphor suspended in mucilage, liquor ammon. acetatis, tinct. hyoscyamus and nitras ether.; a dose to be taken every four hours. Morphia, 1 gr. in a draught, to be repeated at night.

7th.—Had occasional sleep during the night, with headache and intolerance of light and sounds. Tongue hard and parched; skin dry; pulse 160; bowels confined. Ol ricini statim; continue the mixture of yesterday. 10 p.m.—Bowels relieved twice. Night draught, with 1 gr. of morphia repeated.

8th and 9th.—Symptoms continue much the same. I have not been able to produce a lengthened sleep; continue the night draught.

10th.—Passed a tolerably good night, and appears to going on favourably; the pulse, however, of the same peculiar frequency, viz., 160, as at the commencement. 6 p.m.—Visited my patient, and found her suffering from symptoms of an urgent kind; the temperature of the skin had increased to an excessive degree since the morning; the slightest noise produced alarm and distress; and the least ray of light induced pain in the head and general disquiet; the countenance was crimson red, and anxious in its expression; delirium almost constant; bowels violently purged; lochia suppressed; and the lacteal secretion had never shown itself in the slightest degree, although the mammary gland was healthy, and fully developed; her position uneasy, accompanied with great restlessness of manner, indicative of only partial sensibility to her state; pulse 160. The case, from the commencement, was one which filled me with the greatest anxiety and concern, in consequence of the low state of vitality of my patient, and the exhausted condition of the nervous system; but at no part of my treatment did I feel greater responsibility than now, believing as I do that a depressing line of practice in these cases, either by bleeding or medicines, if misapplied, is never to be redeemed. Here were a set of symptoms, which have been so ably described as the representatives of inflammation, the treatment of which has also been equally emphatically laid down, namely, bleeding, with depressents; thus, with the popular ideas of inflammation, and the fondness for active treatment in the public mind, a young practitioner, with equal horrors as myself of the indiscreet use of the lancet, may often have been forced into such a line of treatment to please the multitude, or to protect himself from censure, in the event of an unfavourable issue to the case.

After a little reflection, I decided upon carrying out the sedative and tonic line of treatment, and, with these views, I ordered two pills, containing one and a-half grains of morphia, five grains of camphor, and two of capsicum, to be taken immediately, followed by decoction of bark, with laudanum, aromatic confection, and nitric acid every four hours.

11th, 9 a.m.—Passed a quiet night, getting occasional sleeps of two hours' duration; bowels still purged, skin moist, pulse 150. Ordered the mixture of bark to be continued, and a draught with one grain of morphia to be taken at night.

12th.—Passed a better night; bowels only acted on once, skin moist. From this time, Mrs. —— advanced favourably, though slowly, to a state of convalescence.

In addition to the weightier circumstances of this case, there are one or two minor points which strike me as interesting in a practical point of view. The first is, the condition of the pulse at the wrist, which manifested a determined frequency for an unusual length of time. My patient's circulation in health was never more than 80; but after her confinement it numbered 160 for three weeks, varying occasionally ten pulsations after the influence of a narcotic, but regaining its frequency as the day advanced. When a substantial diet-scale could with propriety be adopted, the circulation diminished in a very marked manner, but two months elapsed before it came within the range of 100; clearly this was a pulse of debility, as proved by the result.

The next point of interest to me is the condition of the mammary gland; although so highly developed, and my patient, when in health, of a sanguine temperament, yet no

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trace of any lacteal secretion ever showed itself through her illness; this I have observed in other cases, and I have also observed that, when this is the case, there has been either an excessive lochial discharge, or flooding, which has rendered the system incapable of the production of the lacteal secretion, or scarcely any appearance of lochia, dependent upon a previous state of inanition of the patient, which has impressed the friends and nurse with the idea of inflammation being in the distance. In this case the same cause which gave rise to all the other symptoms must explain the non-appearance of the lacteal secretion.

The cerebral wanderings and excessive watchfulness all showed the prostrate condition of the powers of the constitution, and the difficulty, in certain idiosyncrasies, to be quieted down, when once deranged, into the natural functions of life. Other cases I could instance of the same tendency, and of great interest, but deem those I have cited sufficient to indicate the value I set upon a liberal and protective treatment.

Rickmansworth.

THE LONDON PRACTICE OF MEDICINE AND SURGERY.

ST. BARTHOLOMEW'S HOSPITAL.

BY

W. SENHOUSE KIRKES, M.D.,

Medical Registrar,

AND

HOLMES COOTE, Esq., F.R.C.S.,

Demonstrator of Anatomy in the Medical School.

MALIGNANT DISEASE OF THE LUNG.

THE following case having been under notice in the wards of the hospital about the same time as the case mentioned in Dr. Burrows' clinical lecture, which appeared in the *Medical Times* for June 7, it may not inappropriately be here offered as another example in illustration of the hitherto obscure subject of malignant disease within the chest, which has received so much elucidation from the experience of Dr. Burrows.

The patient, William Woods, aged 33, was a stout, muscular, healthy-looking man, admitted early in February, 1850, under Dr. Hue, Matthew front ward. He was formerly a sailor, and then drank hard. For twelve months he had been troubled with cough and shortness of breath, which had become more urgent and constant for the last three or four months. A fortnight before admission, pain came on in the right side, and about that time he first noticed some puffiness about the face. He was admitted with this pain in the side, with severe straining cough, and expectoration of bloody mucus, and with constant slight dyspnœa and wheezing respiration. His face was dusky and bloated, the eyelids swollen, conjunctivæ congested, ears livid, veins of forehead distended, the neck much swollen, and the jugular veins and their tributary branches very turgid and large. A similar distended condition existed in the veins of the upper part of the chest, of the shoulders, and the arms; the integuments of the chest were also œdematous. The course of the blood in the distended superficial veins was downwards. On auscultation, the respiratory sounds were quite normal through the left lung. On the right side, anteriorly, nothing was audible from the clavicle to the mamma, except some bronchial breathing about midway between these two points; over the whole of the space there was complete dullness on percussion. Below the right nipple, breathing was audible but feeble. Posteriorly, there was bronchial breathing at the upper part of the right lung; and moderately good respiratory murmur from the inferior angle of the scapula to the base of the lung; no crepitation anywhere audible; but some creaking about the angle of the scapula. On percussion, the upper part of the lung was almost completely dull, the lower half resonant. Vocal vibration about natural. There was thus evidently consolidation of the upper lobe of the right lung, but from what cause was doubtful; the bloody expectoration, the increase of cough, dyspnœa, and general distress, with pain in the side, during the previous fortnight, naturally suggested the existence of pneumonia of the upper lobe engrafted on previous disease within the chest; and on this supposition he was at first treated, being cupped on the right side with manifest relief, and ordered a saline mixture with antimonial wine. The œdema and distended veins of the face, neck, and upper part of the chest, with the downward course of the blood from the vessels in the latter situation, pointed, however, very strongly to some serious obstruction to the passage of blood along the superior cava vein; and, taken in conjunction with the persistence and unchangeable character, during the next few days, of the signs of consolidation of the right upper lobe of the lung, speedily led to the opinion of the existence of some morbid growth within the chest. Active treatment was therefore at once suspended, and those measures employed which seem calculated to allay the distressing cough and difficulty of breathing, which formed the principal portion of his complaints. The correctness of this opinion was daily confirmed by the progress of the case, and the increase of all the symptoms indicative of pressure on the vessels within the chest. The congestion and œdema of the face, neck, and chest gradually became more marked, and soon extended to both upper extremities; while on the chest, and subsequently in the abdomen, the venous obstruction manifested itself in the production of numerous dark red blotches, composed of distended and tortuous vessels, plainly visible in the œdematous integuments. The straining cough and paroxysms of dyspnœa, the latter most urgent by night, now became very distressing; but he continued to linger on till March 18th, when he died, rather suddenly at last.

On examining the body, twenty-six hours after death, there was found extreme and universal anasarca of the integuments; the face was bloated and livid, while numerous dusky blotches were scattered over the upper part of the body. The pericardium contained about a pint of blood-stained fluid; into the upper part of the pericardial sac, on the right side, numerous nodular masses of medullary cancer projected, pushing before it the corresponding portion of the parietal layer of the pericardium, which was here highly vascular, and encroaching upon the base of the heart. Between this mass, and the ascending part of the arch of the aorta, lay the vena cava superior, the canal of which was very much compressed, so as barely to permit the passage of a blow-pipe along it; above this constricted part, the upper portion of the vein, and the venæ innominatæ opening into it were filled with old and recent coagula. The right innominate vein was much more distended than the left, and the right internal jugular was also greatly enlarged and plugged up with similar mixed clot.

The malignant growth thus obtruding into the pericardium was continuous with a large mass situated among the parts at and about the root of the right lung, and extending deep into the substance of the organ. By means of it the arch of the aorta was pushed considerably over to the left side, and with its large branches much distorted and compressed; the trachea likewise, just above its bifurcation, was displaced towards the left side, narrowed, and of a circular form. The whole interior of the central part of the lung was occupied by the extension of this morbid growth; the original pulmonary texture being indicated only by irregular black lines, mapping out the individual lobules. The cancerous matter in most of the lobules was of a milk-white colour, soft, and easily reduced to pulp; in others, it was greyish-white, and firmer.

From the general cut surface of the diseased mass, much thick muddy-white fluid like cream gradually oozed out. The anterior part of the upper third of the lung was comparatively free from the cancerous deposit, and consisted of dense pulmonary tissue, of a pale-greyish colour, which was hollowed out into numerous small cavities filled with greenish pus, and lined by a dense, thick, whitish membrane. These cavities, which looked like so many abscesses, were formed of saccular dilatations of the bronchial tubes. Along the posterior part of the lung was a broad strip of pulmonary tissue, which was healthy, though compressed by fluid in the pleura; this portion of healthy lung would explain the respiratory murmur heard at the lower part of the right side behind, on the patient's first admission, when probably the amount of pleuritic effusion, if any, was small. The right pulmonary artery, as it entered the lung, was greatly compressed and narrowed by the malignant mass through which it passed. It, as well as the right pulmonary veins, contained much recent coagulum. The bronchus passing to the right upper lobe was remarkably narrowed

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at its commencement. The left lung and pleura appeared healthy. There was nothing worthy of notice in any of the other organs.

The diagnosis in this case was comparatively easy; the existence of some morbid growth within the chest exercising pressure on the air-passages and principal venous trunks in the mediastinum was indeed clearly indicated by the symptoms, and was diagnosed very shortly after the patient came under notice. With such a view of the case, little else could be done in the way of treatment than palliating the more urgent symptoms by sedatives and antispasmodics. It is worthy of note that this man presented none of the signs of a person labouring under malignant disease; on admission, he appeared as a stout, muscular, able-bodied man, and even after death there was a considerable robustness of the body. In its progress, in the symptoms noticed during life, and particularly in the morbid appearances presented after death, this case bears a close resemblance to the one recorded by Dr. Burrows in the 27th Vol. of the "Medico-Chirurgical Transactions, to which I may refer for a good account of the diagnosis of this disease. It adds likewise another to the cases in which the disease occurs on the right side of the chest; the apparent preference for which side Dr. Burrows notices in his lecture published in the *Medical Times*. The dilated bronchial tubes in this and other cases of the kind, are evidently the result of the compression to which one or more of the main bronchi at their exit from the root of the lung are subjected; the effect of such pressure being to obstruct the expulsion of mucus which must be abundantly secreted by the tubes traversing the malignant mass, and thus cause it to accumulate in and eventually to distend the bronchial canals. W. S. K.

LIST OF SCIENTIFIC MEETINGS FOR THE WEEK.

Tuesday,	June 24.—Royal Medical and Chirurgical Society. Half-past Eight o'Clock.
	Zoological Society. Eight o'Clock.
Wednesday,	June 25.—Geological Society. Half-past Eight o'Clock.
	Royal Botanic Society. Quarter to Four o'Clock.

THE MEDICAL TIMES.

SATURDAY, JUNE 21.

THE JOHN HUNTER CLUB.

We observe that a vigilant contemporary, with that clairvoyant acumen which pierces into the middle of next week, seeking, in the true spirit of commercial enterprise, food for agitation, has discovered a mare's nest. The John Hunter Club is not extinct, says our Contemporary. Having failed to carry out its evil purposes upon tea and toast in Mr. Partridge's back parlour in New-street, Spring Gardens, its audacious members are said to propose, in the wonderful year of Grace 1851, to raise the John Hunter Club into new life and pristine ugliness, and, fortified with iced punch and whitebait at the Brunswick Tavern, Blackwall, to assail, in a covert manner, that highly respectable body of practitioners who, on the 3rd of July, will there assemble. It is even hinted, that the prospectus of a black plot already hatched, is to be served up, inscribed upon asses'-skin, to Mr. James, the President, with the first tureen of mock-turtle.

"There is such a result," says our contemporary, "as an engineer being hoist with his own petard." There is also such a result as a man being hung with his own rope if he gets length enough. The whole thing is a monstrous fudge—a sort of "No Popery" cry, got up for personal purposes.

Why Mr. James, of Exeter, should feel his position at the head of the table to be unenviable, we are at a loss to conceive. Around him will be assembled a large party of the *élite* of the Profession—by the way, Jaëger, of Vienna, will be there—an association of gentlemen every way entitled to our sympathy and respect. It will be a large commonwealth to meet in friendship, and to part in harmony; at that board the petty squabbles which have disgraced our age, and wearied out even those who have most largely participated in them, will not be mentioned save with ridicule and laughter.

MEDICAL EDUCATION.

The characteristic feature of the present century is the spread of education among the people. As Lord Brougham phrased it, "the schoolmaster is abroad," and no corner of England, from the most remote hamlet to the obscurest alley of the Great Metropolis, is unvisited by the radiations of his illuminating torch. The soil that has lain fallow for centuries is turned up to the air and the light; the seeds that lay buried in its bosom have begun to germinate, and here the succulent shoot absorbs the dropping dews, there the full sheaf falls to the hand of the reaper. Everywhere there is intellectual life, growth, and produce. Mind is on the march, and ever as it goes the sound of its triumphs enlists new recruits.

Our time is not unlike the period immediately anterior and subsequent to the Reformation. Then there was a great awakening among the nations. Classical learning, that had rusted and rotted in the fusty brains of sleepy monks, sprang forth at the bidding of Boccaccio, Petrarch, and Poggio, to a new existence, and engaged, for her devotees, all that was pure and noble in the earth. Erasmus, Melancthon, Budæus, Grocyn, Cheke, Lefevre, our own Linacre, and countless others, were the offspring and the witnesses of the movement. Nevertheless we do not point to these shining stars—however dazzling their radiance—as the true symbols of their age. There was a significance and a prefiguration of the future, even beyond their labours or renown, in the numberless grammar schools and chartered educational institutions that were then founded in this and other countries, denoting that the revival of learning was not destined merely to minister to the capricious intellectual appetite of a few exclusive schoolmen, as in the days of an Aquinas or an Abelard, but to search into, ferment, and agitate among the masses of mankind, until humanity, growing under the new impulse, should be developed at some distant day in its true stature and comeliness.

Our own Profession was warmed by the new light. Linacre, who stands high among the restorers of learning, translated Galen, was, it is said, the first lecturer in Greek at Oxford, and bestowed on medicine the character of a separate science in this country by procuring the establishment of the Royal College of Physicians. As a Profession, we owe everything to the revival of learning; and, from that day to this, we are proud to say, that the College of Physicians has not been disregardful of the dignity of its origin, and has well sustained the honour of the Profession for eminence in literature.

There is, however, a large proportion of our brethren who do not dwell under its shadow, who are ennobled by no tradition, and animated by no great historical exemplars. They are the creatures of modern wants,—the men of the day,—useful, necessary, but not dignified as the inheritors of centuries of Royal favours. Perhaps, as the world now

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goes, they may not be the worse for this, although it would be presumption to say that they might not be better than they are. A little more learning might be an advantage, unaccompanied with danger; and a little closer union with those hereditary institutions which lend a grace and dignity to our Profession, would probably be the best means of accomplishing such a result.

What we require is a more thorough preliminary education for the young man destined to practise as a General Practitioner. When education is reaching downwards to the very dregs of society, and sunning, as it were, the benighted crypts of ignorance; when even Ragged-schools are encroaching upon the province of National-schools, and these, again, are pursuing so hard on the heels of Grammar-schools, that the latter scarcely know which step to take to be relieved of the unwelcome pressure; when Royal Commissions, muttering portents of reform, are sitting on the time-honoured misdeeds of universities, and these, to save their privileges, threaten, in mere desperation and spite, to educate all the youth in the country and give them the privileges of the University without residence and almost without price,—it is surely time for us to see what measures can be adopted to maintain our Profession on a level with the literature and intelligence of the other sections of society. We can never, however, advert to this subject without giving due praise to the Apothecaries' Society for the efforts they have already made to promote the cause of medical education. It is owing to their regulations that our Medical Schools have attained their present ample development, and to their examinations that they have not been suffered to dwindle into a mere system of forms. They have required an amount of qualification that has deterred alike idle students and incompetent teachers, until the character of our teaching has been elevated to a standard that none but the best teachers can reach, and to a dignity for which they are proud to compete. The impulse which this Society has given to medical science is incalculable. Medical schools, it is true, were famous long before the Society of Apothecaries had the partial control of their curricula; but anything like the judicious organisation and fructifying activity that now exist was not known. Collaterally with this improvement of our educational discipline, University and King's Colleges, and other institutions for the instruction of youths in preliminary knowledge, have been founded. So that it may be fairly assumed, that, since the period in the Middle Ages to which we have referred, education, learning, and science have not exhibited so glorious a manifestation.

Apropos to this subject, we observe by a Prospectus that has been recently sent to us, that a Dr. Brindley, of Tarvin Hall School, near Chester, contemplates establishing a "Provincial Medical Collegiate Institution," on a large scale, for the purpose of affording a sound and comprehensive preparatory education for boys intended for the Medical Profession. The object is good, and the proposal to establish the Institution by private means, on personal responsibility, shows an enterprising spirit on the part of the promoter. An offer, however, has been made to the Provincial Medical and Surgical Association, to take the management of the school when established into their own hands—a question of very considerable importance to the interests of that Society, as well as to those of the proposed school. If the Provincial Association undertake this school, they must have in view a higher purpose than mere gain, and be prepared to offer greater advantages than would be afforded by the superintendence of an active principal, whose personal interests are dependent on the success of his undertaking. At the present moment we can see no advantage to the Society or to the Profession, in the Council turning schoolmasters.

Another plan also demands attention. It is well known that Mr. Propert has been for some time endeavouring to establish a College for the maintenance of disabled practitioners and the education of their children. This scheme is charitable in its intent, and deserves the warmest support. A Meeting will be held at the Hanover-square Rooms, on Wednesday, the 25th inst., for the purpose of advancing the interests of the proposed College, and we exhort all our brethren to spare an hour from their more pressing avocations, and attend this meeting. The subscriptions have already surpassed expectation, but more, much more, is yet required to realise this most admirable and benevolent design. The friends of charity will rally round Mr. Propert, and aid him in his noble effort; and, unless a large number of our own brethren attend, it will appear either that there is no privation among us, or that we are insensible to the benefits proposed to be afforded.

Thus we see that educational institutions are rising in all quarters, and there is room for all. Dr. Brindley's scheme, being founded on a principle different from Mr. Propert's, will not interfere with it, unless the Provincial Association should seek to divide the resources of the Profession by directing into that channel contributions that would otherwise have flowed into Mr. Propert's reservoirs. We hope there will be no distraction of purpose. Our Profession is not rich enough to afford it. Let us do one thing at a time, and do that well.

THE GREAT EXHIBITION.

OBJECTS CONNECTED WITH THE THEORY AND PRACTICE OF MEDICINE AND SURGERY.

[SIXTH NOTICE.]

Mr. Bullock exhibits a preparation from wheat flour called "semola," intended as a nutritious food for young children and invalids. It consists of a mixture of dried gluten and starch, the former being in very much larger proportion than in the original flour. The idea is a very ingenious one of supplying vegetable fibrine, and combined with a certain amount of starch, which renders it much more easily digestible by dividing, suspending the gluten. It has this advantage also, that a known quantity of the nitrogenized vegetable principle is administered, whereas all the natural vegetable products containing an uncertain proportion. Two specimens in this small but interesting collection are deserving of attentive examination. These are large specimensof Kreatine and Kreatinine, of which we shall give some account, since the properties of these substances are very slightly if at all noticed in most of the chemical text-books. The first of these, kreatine, was discovered by Chevreul in 1835, in the extract of flesh. Liebig subjected these compounds to a very elaborate examination, the results of which are given in detail in his "Researches on the Chemistry of the Food." Kreatine has hitherto been discovered only in the juice of flesh and in urine, fluids which, in a normal condition, have an acid re-action. The proportion of this crystalline substance existing in both these fluids is extremely small, 100 pounds of flesh of a lean horse yielding only 555 grains; 86 pounds of beef, 463 grains; and 116 lean fowls, 1110 grains. Thus, 1000 parts of the flesh of the fowl yields 3·05, of the horse 0·72, and of the ox 0·697 parts of kreatine. Liebig has proved that it exists in the flesh of numerous quadrupeds, in fowls and in fish, and Schlossberger in the flesh of the alligator; so that it may be inferred that the flesh of all vertebrated animals contains this principle. In order to obtain this curious substance, lean flesh is to be employed, and Liebig recommends the following process. Supposing ten pounds are to be operated on, it is first finely minced, then five pounds of water are poured on it, and the whole well kneaded. The mixture is next pressed, so as to extract as much of the liquid as possible, the residue is again kneaded with a similar quantity of water,

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and again pressed, and the last liquid employed for the other five pounds of flesh. These extractions are several times repeated, and the liquids, after being mixed, are passed through a cloth, to separate any fragments of muscular fibre. The whole is next introduced into a glass globe, placed in a vessel of water, and gradually heated to the boiling point, by which albumen and colouring matter are coagulated. As, on the evaporation of the liquid, the free acid, reacting on the other principles contained in the fluid, produces a brown colour, the acid must be neutralized before evaporation; and for this purpose strong baryta water is added until it ceases to render the fluid turbid, when phosphate of baryta and magnesia are deposited. The liquid, freed from the precipitate, is placed in flat porcelain dishes, and gently evaporated, avoiding ebullition, until it assumes a syrupy consistence. It is then placed in a moderately warm situation, and left to evaporate slowly; small, short, countless needles soon appear, which increase on standing and cooling, and these are kreatine. Some slight variations of the process are required with different kinds of flesh. Kreatine as thus obtained forms very transparent crystals, which are right-angled prisms. The specific gravity of these crystals is between 1·34 and 1·84. It dissolves readily in boiling water, and crystallizes from a concentrated solution in small brilliant needles, but forms larger crystals when deposited from a more dilute solution. It is rather sparingly soluble in cold water; one part of kreatine requiring 74 parts of water for solution. It is nearly insoluble in cold alcohol. The cold aqueous solution of this substance has a weak bitter taste, followed by an acrid sensation in the throat. It does not act as a base, and is incapable of saturating the weakest acids. It undergoes decomposition when boiled with baryta water and with permanganate of potass, other products being formed. Strong mineral acids, with the aid of heat, decompose it with the production of another crystallizable substance, kreatinine. The crystals contain water of crystallization, and its formula, as determined by Liebig, is (C_3 N_3 H_9 O_4) + 2 aq.

Kreatinine, of which also a fine specimen is exhibited by Mr. Bullock, is best obtained from kreatine by the action of strong hydrochloric acid, or a mixture of 27 parts of sulphuric acid with 73 parts of water with the aid of heat, until the excess of hydrochloric acid in the first case is expelled, and the whole evaporated to dryness in the second. The former yields hydrochlorate, the latter sulphate of kreatinine. From the sulphate, kreatinine may be obtained by adding carbonate of baryta to a boiling aqueous solution of this salt until effervescence ceases, when sulphate of baryta is deposited, and pure kreatinine remains in solution. This substance is separated from the hydrochlorate by excess of hydrated oxide of lead. By evaporation of the solution, crystals are obtained. Kreatinine possesses all the properties of an organic alkali; its solution restores the blue colour of reddened litmus, and a crystal laid on moist turmeric paper produces a brown stain. It is much more freely soluble in water than kreatine, one part dissolving in 11·5 of cold water. It is also soluble to a small extent in boiling alcohol. It is precipitated in small white needles by a strong solution of nitrate of silver; forms a curdy precipitate in solution of corrosive sublimate, which soon changes to acicular crystals and it produces crystalline grains in a solution of chloride of zinc. It expels ammonia from its salts, and forms double salts with oxide of copper and bichloride of platinum. The formula of kreatinine is C_8 N_3 H_7 O_2, and it corresponds with that of crystallized kreatine, minus 4 equivalents of water. Kreatine and kreatinine both exist in fresh urine, but the whole of the former is converted into the latter during the putrefaction of this fluid. Liebig thinks that these substances are more readily obtained from this fluid than from flesh.

The action of these substances on the animal economy, when administered by the mouth, has not as yet been ascertained. Like that large class of compounds intermediate in composition between the protein compounds and urea, it is probable that they may exercise a more or less powerful action, and may ultimately be brought into use as remedial agents. At all events, the whole subject is worthy of careful and accurate examination. The crystals of kreatine in Mr. Bullock's specimen appear to be groups of square tables; the form of the crystals of kreatinine we could not determine.

Fine specimens of four of the constituent principles of urine, or rather, derivatives from uric acid, are contained in the same case. The specimen of uric acid is white, and has its usual appearance of a crystalline powder. That of urea is also white, and in prismatic almost fibrous crystals. Hippuric acid, the peculiar acid of the urine of herbiforous animals, is in very white and fine prisms. Allantoine, a substance existing naturally in the fluid of the allantois of the fœtal calf, but also prepared by the action of peroxide of lead on uric acid, is also exhibited. This case contains, moreover, a splendid specimen of caffeine.

M. Picciotti exhibits two cones of mannite, one of them broken, showing very fine square prismatic crystals in its interior; also specimens of gum arabic in its crude coloured state, and others purified by a patent process, with the nature of which we are not acquainted.

Messrs. Hopkins and Williams (No. 56) exhibit, in addition to a large series of chemicals, the nuts of anacardium occidentale, Chinese galls, and the rhizoma of Aspidium Filix mas. Several of the chemical preparations are very interesting. Taking them in order, we have a fair specimen of gallic acid, and metagallic acid, as a black powder; a good one of chromic acid; an excellent specimen of urea in fine prismatic crystals. Tannic acid is as usual in yellowish balls. Tannate of bismuth as a whitish brown amorphous powder. Several valerianates are also included in the collection. Valerianate of bismuth as a white amorphous powder; valerianate of iron as a reddish-brown mass; and valerianate of zinc in beautiful nacreous scales. Iodoform in brilliant nacreous golden scales. Bromoform. An exquisite but small specimen of atropine, in feathery acicular tufts, adhering to the glass in which they were crystallized. Theine from tea, a fine specimen in silky fibrous needles. On this specimen we must remark, that theine and caffeine have been recently proved to be identical in composition and properties; so that, whether coffee or tea be used as a beverage, the same alkaloid is imbibed; but it must be borne in mind, that other and very different proximate vegetable principles are associated with the alkaloid in the two beverages. In the same case we find an excellent specimen of asparagine in good crystals, some of which are very transparent four-sided prisms with bevelled summits. Aconitine as an amorphous white powder. Among the pharmaceutical preparations are the iodide of quinine and iron, as a dark-grey, almost black substance in shining particles; citrate of quinine and iron; the double sulphate of quinine and iron in small white crystals, with a slight brown tinge. Sublimed biniodide of mercury and benzoate of ammonia complete the series.

Mr. Hemmingway's collection is characterised by an extensive series of the double per-salts of iron, recently introduced into practice. An absurd idea prevailed some years since, that the proto-salts of iron alone were active as remedial agents, and that even the per-salts usually employed owed their activity to the presence of a small proportion of a proto-salt. This, however, is now generally admitted to be an error. The per-salts, especially the citrates and tartrates are incapable of being precipitated either by acids or alkalies, and are, from this cause, compatible with either, — a manifest advantage in prescribing. The specimens exhibited by Mr. Hemmingway are very carefully prepared, and are very beautiful objects, from their variety of colour, and brilliant, glittering appearance. The first specimen is citrate of iron, in red, shining scales; then follow two citrates of soda and iron; one in dark purple scales, having the composition (2 Ci, 3 NaO, 3 Fe_2O_3); the other in yellowish brown scales, consisting of (2 Ci, 3 NaO, Fe_2O_3); citrate of ammonia and iron, (2 Ci, 3 NaH_4O, Fe_2O_3); citrate of potass and iron, (2 Ci, 3 KO, Fe_2O_3,) both in red scales; citrate of iron and quinine; tartrate of potass and iron, and tartrate of ammonia and iron, both in black scales. In addition to these, is a preparation called gummated iodide of iron and the syrup of the iodide of iron. The neutral sulphate of quinine is in very large tabular, transparent, colourless crystals. A good specimen of benzoic acid; benzoate of ammonia, in groups of scaly crystals; boro-tartrate of potass, or soluble tartar, in white crystalline scales; the nut and concrete oil of a species of bassia, the shea-tree of Mungo Park, complete this very interesting collection.

Mr. Hall (No. 37) exhibits an immense mass of crystals of sulphate of iron from the Copperas-works of Queenborough, Isle of Sheppy; together with specimens of the pyrites from which this salt is manufactured. The process is a very simple one: the common hepatic pyrites, or sulphuret

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of iron, which is most abundant in the Isle of Sheppy and along the Essex and Suffolk coasts, where it is associated with the fossil remains of animals and plants, when exposed to air and moisture, absorbs oxygen, which, combining with both the sulphur and the iron, forms proto-sulphate of iron. During this process the mineral falls to pieces, and, if the water be not too abundant, is converted into a mass of minute crystals of sulphate of iron. It is then lixiviated, the solution allowed to deposit its impurities, and the salt subsequently crystallized by evaporation.

REVIEWS.

An Inquiry on the Subject of Vaccination. Addressed to the Royal Medical and Chirurgical Society. By BENJAMIN RIDGE, M.D. Pp. 31. London. 1851.

This pamphlet has grown out of the recent discussions at the Medical and Chirurgical Society regarding the permanency of vaccine protection; and it may be accepted as a proof of the increasing interest which that subject excites. The author adduces no new facts. He devotes himself exclusively to speculative matters. He entertains some peculiar views regarding the structure of the infantile frame, and has persuaded himself that the real cause of the present large amount of small-pox after vaccination is to be found in the fact, that children are vaccinated at too early a period of life. The gist of the pamphlet may be found at page 15, where we read as follows:—

"The beneficial results of vaccination are thwarted by its being performed too early, or previous to the age of three or four months. If performed after that time, there will be more security against small-pox, and more likelihood of ultimately exterminating it; though it is my firm belief, that even vaccination will hereafter be superseded by more philosophical prophylactic measures."

Eight pages of this pamphlet are devoted to extracts from the author's former publications, and five pages are filled with extracts from the early essays of Dr. Jenner. The following are perhaps among the most useful hints which the author throws out:—

"If vaccine lymph is taken after the vesicle has reached maturity, purulent matter is mixed with the virus, and the result is, that, though vaccine protection be afforded, the germ of morbid action is at the same time implanted in the blood, giving rise to eruptions of various character when the pernicious seed has had time to vegetate in the system."—P. 27.

"As to the preservation of the virus: the ivory points well charged, set on end to dry, and enclosed in a small stoppered bottle, presents to my mind the fittest and safest mode. Virus allowed to dry between two pieces of glass is deteriorated or destroyed by crushing molecular continuity; and virus carried on the point of a lancet soon decomposes."—P. 28.

Among the extracts from Jenner's writings may be found the following, which we recommend to the special attention of those who are now engaged in elucidating the question of vaccine security:—

"Happy is it for mankind that the appearance of small-pox a second time in the same person, beyond a trivial extent, is so extremely rare, that it is looked upon as a phenomenon."—P. 21.

An honest avowal like this is worthy of the name and fame of Jenner; and it grieves us to see modern authors repudiating this doctrine, while they uphold so strongly the more popular and novel lessons which that philosopher inculcated.

The Teeth and their Preservation, in Infancy, and Manhood, to Old Age. By ALFRED CANTON, M.R.C.S.L, Dental Surgeon to Charing-cross Hospital. Pp. 208. Plates. 1851.

Quackery among *soi-disant* dentists has been so prevalent of late years, and has inflicted so much injury on the community and on the Profession, that we are well prepared to welcome a work, a great object of which is to impart such information as will enable the public to judge between the really qualified professor of the dental art and the impostor. In this respect, Mr. Canton's work is very timely, as our columns have for some time shown, by the detail of some of the tricks used by these gentry to impose on their victims. Mr. Canton has, however, done much more than this. Without proposing to himself to detail any great discoveries in the anatomy and physiology of the teeth, he has given a correct and well-written sketch of those subjects, and then has occupied himself in describing the diseases to which these important organs are subject, and the treatment, therapeutical, surgical, and mechanical, that should be adopted. Although himself a member of the College of Surgeons, we observe that he nowhere trenches on the province of the medical practitioner; but in every case when requisite, invariably recommends that the usual medical attendant of his patient should be consulted. In this respect he has acted wisely and rightly, having adopted a line of conduct which must insure the satisfaction of the Profession, to whose full confidence it must inevitably recommend him. The descriptions of disease are evidently correct and ample, and the treatment advised that now pursued by the first surgeon-dentists in this country. The author has added to the value of his work by an Appendix, containing a selection of formulæ, adapted to the different states of disease of the teeth and gums.

PROGRESS OF MEDICAL SCIENCE.

SELECTIONS FROM FOREIGN JOURNALS.

VOLKMANN'S HÆMADYNAMICS.

(Continued from page 627.)

In the *Fifth Chapter* which treats of *the Pressure of the Blood*, the author mentions the different methods and instruments which have been applied to the measurement of the pressure exerted by the circulating fluid; at the same time investigating the results which these instruments are especially calculated to afford. He thus deduces, that not one of the instruments hitherto made use of is capable of specifying the entire and unadulterated force ($H = f + w$) present in a vessel. As regards the hæmadynamometer of Poiseuille, it certainly gives both f and w; only, in consequence of the ligature placed on the vessel, one of the outlets of the blood is cut off, and the pressure on the others consequently augmented, so that his hæmadynamometer gives a higher pressure than normally exists at this spot. The author believes that he has observed instances where this elevation even amounted to 14 millimetres of quicksilver; but this only relates to arteries. As regards the measurement of pressure in veins, Poiseuille's instrument is yet more unsafe and useless, since here it can noway be determined to what spot the given pressure really pertains. For the instrument only declares the pressure existing at the place where the blood ceases to be obstructed, or at the place of a distant anastomosis; and thus, if a cluster of veins are tied, the pressure received is that present in the arteries.

The instrument invented by Ludwig does not obstruct the circulation, since the angularly bent tube which is connected with the hæmadynamometer, and is introduced into the artery through a slit in its walls, does not completely fill the cavity of the vessel. But it does not give the full value of $w + f$. It is true that in the arteries, where f is small compared with w, the error is not very great; but in the veins it becomes much more considerable.

The exact lateral pressure is given by an instrument also invented by Ludwig. That end of the hæmadynamometer which enters the artery has around its margin a plate, which is introduced through a slit into the vessel; the slit itself being afterwards closed by a screw surrounding the glass tube. The tube thus opens into the unobstructed artery, the blood passing it in a similarly unobstructed stream, and operating on the quicksilver in the instrument solely by lateral pressure. The author attained the same object by a T shaped glass tube, the horizontal part of which was introduced into the vessel and fixed by ligatures; while the vertical was connected with the hæmadynamometer. And in many cases, he substituted for the latter instrument a long air-tight closed tube of glass, so as to measure the force of the lateral pressure from the compression of a column of air by the blood entering the tube, according to the well-known law of Mariotte.(a)

(a) The volume of a column of air is inversely as the pressure.

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But by far the most preferable instrument for measuring the pressure of the blood is the kymographion previously mentioned. With this instrument the following facts may easily be verified.

The pressure of the blood is no constant magnitude; but in the arteries is incessantly changing, according to the stroke of the heart, the movements of respiration, and those of the body generally. The change in the height and depth of the level of the quicksilver, which was referred by Poiseuille to inspiration and expiration, does not depend upon these causes, but upon the pulse. (This will be hereafter mentioned more fully.) The hæmadynamometer, as thus altered by the author, is a measure of resistance. But it never gives more than a part of the effective resistance present in the blood-vessels generally; since, firstly, it only measures the lateral pressure S, while, as was previously stated, $w = S + s$ (although in this case s is certainly an inappreciable magnitude); and secondly, it can never be applied to the commencement of the system of vessels. And, although Poiseuille has stated that the pressure is everywhere equal in the whole arterial system, yet the author refutes this statement most completely, and shows that the experiments on which it rests are not trustworthy, and are contradicted both by theory and facts. He shows that, on the contrary, the resistance in the arteries diminishes with the distance from the heart. To this conclusion, however, are opposed some experiments undertaken by Spengler, with Ludwig's assistance; according to which the average pressure was often found to be greater in arteries at a distance from the heart than in those which were nearer. But the experiments undertaken by the author with better instruments, and a more exact method of determining the average pressure, gave, as a constant result, a diminution of pressure, by removal from the heart, in the arteries, and by approaching it in the veins. The author found only one exception to this law; namely, that seen in comparing the pressure in the carotid and femoral arteries; the latter often presented a higher pressure than the former. But he believes that this may be explained by the influence of obstruction above mentioned as modifying the law,—the different parts of these arteries always obeyed it.

Since, as just remarked, the measurement of pressure cannot be applied immediately to the heart itself, we are unable to estimate directly the whole pressure given out by this organ. But the author adduces reasons for the supposition that the pressure found in the carotid is about three-fourths of the whole sum.

Poiseuille assumed a blood-pressure of 160 millimetres of quicksilver for all arteries, and all mammalia. But neither of these statements is correct. As regards the arteries, its inaccuracy has already been pointed out. And the following examples, from a table given by the author, show the inaccuracy of the second assertion. In the carotid, the pressure amounted:—

In the horse to . . .	321	millimetres	(according to Ludwig.)
„ „ . . .	214	„	„
„ sheep . . .	206	„	„
„ calf	177	„	„
„ large dog . . .	172	„	„
„ domestic fowl . .	171	„	„
„ calf	165	„	„
„ stork . . .	161	„	„
„ horse . . .	150	„	„
„ cat	150	„	„
„ young dog . .	104	„	„
„ old horse . . .	110	„	„
„ rabbit . . .	108	„	„
„ „ . . .	90	„	„
„ old sheep . . .	98	„	„
„ pike (branchial artery)	84	„	„
„ „ . . .	35	„	„
„ frog (left aortic arch)	29	„	„
„ tortoise . . .	23	„	„
„ frog	22	„	„

It results from hence:—(1.) That the pressure of the blood in the carotid of different animals may vary to almost four times its amount (90 to 321.) (2.) That the warm blooded animals seem to have a far higher blood pressure than the cold blooded. (3.) That the pressure seems to be less in very young and old animals than in those of middle age. (4.) That the size of animals is not proportional to the force of the pressure. (Fowl, 171; horse, 150; cat, 150.) The extraordinary character of this fact vanishes, when we consider, that while the greater number of vessels in a large animal increases the resistance on the one hand, the numerous canals of outlet diminish it on the other; and that, in order to expel a larger quantity of blood with equal force, a more muscular heart is necessary. The smaller pressure exerted by the blood in amphibia and fishes, may probably be the result of the more sluggish movement of their blood; since, as before mentioned, the pressure depends upon the velocity of the stream.

The *Sixth Chapter. Velocity of Movement of the Blood.* By this term, the author does not mean the velocity with which the blood completes its circulation, but that with which a given blood-particle passes a determinate distance. This must evidently be different in the different segments of the vessels. In the case of the aorta, the quantity of blood which it receives at each systole has been estimated, the width of the vessel next measured, and afterwards it has been calculated how far this quantity of blood would fill it. And in doing this, the velocity has been regarded as the duration of a systole. But all these estimates vary extremely. Thus, Harvey estimated the mass of blood expelled at each stystole at half an ounce, while Krause states it at 5½ ounces; so that the estimates vary eleven fold.

Similarly Poiseuille gives the width of the aorta as 908 square millimetres, Vierordt as 520,—a difference of double; and thus the entire calculations may differ twentyfold from each other. Weber's well-known experiments on transparent parts are somewhat more accurate. In these he measures the rapidity of the circulation in the capillaries. To determine the rapidity of the stream in larger vessels, the author made use of an instrument discovered by himself, and named the "hæmadromometer." It consists of a very short metallic tube, in which a very (130 centim.) long glass tube, bent into the shape of a hair-pin, is inserted at a right angle. The two ends of the metallic tube are placed, the one in the central, the other in the peripheric end of a vessel. At the points of insertion of the bent glass tube are cocks, which are so perforated that, in a certain position, the blood can stream freely through the short metallic tube from the central into the peripheric part of the artery, but in another position can only take its course through the long glass tube. The latter is now filled with water, and the instrument placed in an artery in the first-mentioned position of the cocks. As soon as these are turned, the blood is forced into the circuitous course, driving the water before it, and flowing through the long glass tube with the same velocity which it possessed in the artery. There is certainly some slight mixture of blood with water, and hence a slight uncertainty in the calculation; and the same remark applies to the circumstance, that the exact commencement of the circuit by the blood cannot be observed. But, according to the author, this does not amount to more than one-tenth, or at most, one-eighth; but, since the width of the glass tube is somewhat less than that of the artery, the velocity of the course of the blood is in all cases somewhat diminished, and the blood flows somewhat too slowly in the hæmadromometer. The influence which the increased length of its path in the glass tube has upon the blood is shown, by a comparison of instruments of different lengths, to be inappreciable.

Experiments instituted with this instrument gave, in the case of the carotids of seven dogs, a velocity of 205 to 357 millimetres in the second; in that of horses, 220—254, after ligature of the maxillary even 431; in the metatarsal artery of a horse, 56; in the carotid of a calf, 431. The author states, that the average velocity of the current in the carotids of the mammals he examined was about 300 millimetres. In the vessels at a distance from the heart the velocity sinks very considerably, but is still enormously greater than in the capillaries. Losses of blood have an extraordinary influence upon the velocity. As a rule, the movement of the blood is slower after every (venous) bleeding; nevertheless, exceptions occur which may be easily explained by the variety of circumstances on which the force of the heart depends.

The velocity of the stream of blood was measured, partly by the quantity of blood passing through one tube in equal

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spaces of time, partly by the hæmadynamometer itself. In the carotid of a dog, it amounted,

After loss of	0	grammes, to	280 millimetres
„	54	„	259 „
„	133	„	186·6 „
„	219·5	„	88·4 „
„	295·5	„	48 „

According to the author, this diminution of velocity depends upon the relaxation and narrowing of the vessels produced by the loss of blood. Increased quantity of blood will, therefore, increase the velocity. A simple increase in the frequency of the pulse does not cause any increase in the velocity of the blood's stream. This fact obtains a general confirmation, not only from theoretical considerations, but also from direct experiments; as, for instance, on dogs, in whom, a very considerable increase in the number of the pulsations was produced by section of the vagus. (a) And, in like manner, the author believes himself justified in stating, that no increase in the velocity of the blood's circulation occurs in fever.

The average velocity of the blood in the carotid of mammalia was found to be 300 millimetres; but in the capillary vessels, from an observation made on a dog's mesentery, only 8-10ths of a millimetre. Since the velocity is inversely proportional to the width of the channel of the stream, the width of the cavities of the vessels in a section of the capillaries (*i. e.*, the width of all the capillaries together) must be about 400 times greater than that of the carotids; or inversely, the proportional changes in the velocity of the stream may be deduced from those in the width of the vessels' cavities. And in this manner the author attempts to calculate the velocity of the stream in the aorta. And from this estimate, together with that of the width, we may determine how much blood the heart expels in a given time, or by a single systole. It was thus of pre-eminent importance to measure accurately the widths of the different vessels; and this the author did, by means of a method which need only be mentioned here as affording tolerably safe results. Observations and calculations made on different mammalia gave an average result, in round numbers, of 400 millimetres for the velocity of the stream in the aorta, and 300 in the carotid. The quantity of blood expelled by each systole was proportionate to the weight of the body; on an average, a fraction of 1-400th. This, for an ordinary adult man, gives 6·2 oz. for each systole.

The velocity in the arteries is by no means uniform, but becomes suddenly greater at every systole,—as may be shown by the microscope in the case of smaller, by the hæmadromometer in the case of larger arteries. The velocity in the veins increases with proximity to the heart, since, as a rule, the union of two veins produces a narrowing of the cavity of the vessels, together with a vast diminution of the surface of contact and resistance.

Chapter Seven.—Force of the Heart.—After mentioning previous statements, the author proceeds to consider Poiseuille's supposition, according to which the force of the heart amounts to 4lb. 3oz. Since Poiseuille's premise of the equality of pressure in all the arteries has already been shown to be incorrect, the result calculated therefrom must obviously be erroneous. The author calculated the force of the heart, $H=f+w$; and gives the value reduced to the pressure of a column of blood. According to this it is $=8·2+2700$ millimeters; whence it follows, that the value f is only 1-300th of the force of the heart; *i.e.*, that 1-300th of this force suffices to effect the movement of the blood, the remainder being all expended in overcoming the resistances.

Chapter Eight.—On the fixed Proportion between the Pressure of the Blood, and the Velocity of its Movement.—In Chapter 1, it was shown, that a definite ratio exists between the pressure of a fluid and its velocity. It thence becomes a question, whether this physical law really holds good, and with the same exactness, for the circulation of the blood. The chapter before us is especially devoted to the answering of this question. The author shows, that the formula before laid down, $w=av^2+bv$, is quite applicable to the calculation of the circumstances of the blood's circulation, and that the values so calculated differ from those actually observed in most instances only by 1-20th. Nay, more, that when he made use of the formula before quoted, which assigns to the diameter a value distinct from that of the co-efficients a and b, the difference, in a mean of five observations, amounted to only ·022.

Chapter Nine.—Exhibition of an Important Method of Making Hæmadynamic Researches—contains a fuller description of the results which may be obtained with the hæmadromometer, especially in connexion with an instrument for measuring the pressure. The author also shows how, in this way, we may easily calculate the velocity of the blood from the difference of pressure in different parts of the instrument, although the value is not quite so accurately given as by the previous method. He also communicates the result of a very careful investigation into the exact value of the increase of resistance which the hæmadromometer itself produces, and which he states as amounting to only one-fourteenth of the normal resistance.

Chapter Ten. Duration of the Circulation.—The author calculates the average time occupied in the circulation by the formula $t=z.\frac{x}{y}$; where z represents the duration of one pulse, x the entire mass of blood, and y the quantity expelled by a single systole. According to this, the circulation occupies,

In the new-born infant	..	34·29	seconds
„ adult man	..	65·76	„
„ horse ..	..	120·00	„
„ rabbit ..	..	24·00	„

He believes that Hering, in his well-known experiments, came very near the truth. The time occupied by the circulation in the different paths of the blood (or parts of the body) is, according to the author, tolerably uniform. For even regarding the time during which the blood occupies the larger vessels as almost inappreciable compared with that in the capillaries, still we find that the shorter the path of the blood the narrower its channel leading to the capillaries. So that the velocity in the coronary artery, for instance, is much less than in the femoral; and thus there is no great difference in the velocity of the circulation through any two vessels, unless, as in the liver, the blood has to pass through two sets of capillaries.

As already shown by the direct experiments of Hering, the duration of the circulation does not depend on the acceleration of the pulse or the reverse: in his observations it often happened that the pulse was accelerated threefold without any such result. In conclusion, the author cites Poiseuille's experiments, which show that a change in the physical condition of the blood—by the application of salts or alcohol, for instance, causes exactly the same change in the velocity of the stream, as it does when similarly applied to water flowing through capillary tubes of glass. The alcohol, in many instances, diminished the velocity, the saltpetre increased it, etc.

[To be continued.]

(a) Compare Ludwig's paper, as abridged in this Journal of April, 1850. The diminished force of these pulsations quite accounts for such a result.

GENERAL CORRESPONDENCE.

DR. MERRIMAN ON INVERSION OF THE UTERUS.

[To the Editor of the Medical Times.]

SIR,—I learn from the *Medical Times*, No. 48, May 31, to which my attention has been this morning particularly directed, that at a meeting of the Medical Society of London, on Saturday, May 17, 1851, Dr. E. Smith had called the attention of the members to "A Fatal Case of Inversion of the Uterus with attached Placenta," &c. The patient, it was stated, had passed the age of thirty, was of delicate habit and "ill-fitted to repel the influence of exhausting agents." This was her second pregnancy, and the child was born after a labour of about five hours' duration, under the care of a midwife.

It is much to be regretted that Dr. Smith was not sent for to visit this patient till twelve precious hours had elapsed after the birth of the child, when he found that the uterus, with the placenta attached, was protruded without the os externum. In this emergency Dr. Smith obtained the assistance of two medical friends, and was most assiduous and persevering in his endeavours to preserve the life of the poor lady, but unfortunately all his endeavours were in vain, and after languishing a few hours she expired.

Dr. Smith directs the attention of his readers to five points of interest in this melancholy case, all which deserve and will no

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doubt obtain the attentive consideration of those especially who are engaged in midwifery practice. For myself, I am desirous of making a few observations upon the fourth point in this series, because it refers to a mode of management upon which I have spoken approvingly in my "Synopsis of the Various Kinds of Difficult Parturition," &c., Third Edition, 1820; but to which mode, in the Fourth Edition, 1826, I objected, because it had altogether failed in a case to which I had afterwards been called.

I take the liberty of quoting Dr. Smith's words—"Fourthly. Dr. Denman and Dr. Burns advise that the uterus, with the attached placenta, be returned. Dr. Merriman also gives the like advice, but he mentions an instance in which he first detached the placenta, and the patient did well. It is highly important that some definite rule should be laid down by the Profession; for if it be judged best to detach the placenta, it will be injurious to lose time in endeavouring to return it; or if it be deemed proper to return the mass, it cannot be right to run the risk of alarming hæmorrhage by first detaching the placenta."

In this conclusion I quite agree, as far as it is possible to be definite in such a case, consistently with the privilege which must be conceded to every competent practitioner, of being influenced in the treatment of each case by the peculiarities which such case presents; and I hope that the words in the above extract, "Dr. Merriman gives the like advice," fall under this category.

The advice or counsel which my volume gives, is to be found in the following extract:—"The presence of an inverted uterus being ascertained, it becomes the accoucheur to use the most prompt and decisive means of relieving his patient, and this can only be done by immediately re-inverting the uterus. To effect this, he must first return the uterus within the vagina, then, having his arm bare and well smeared with lard, he must pass his hand through the os externum, and resting the backs of his folded fingers against the fundus uteri, he must carry it forward till he finds his hand within the cavity of the uterus; and still pursuing his object, he must push his hand onwards till he is fully satisfied that he has completely re-inverted the uterus, and that the contraction of the os uteri will prevent any future mischief." P. 150. This is the sum and substance of my advised and deliberate recommendation; but in commenting upon this, and in deference to the expressed opinion of Dr. Denman, who had favoured me with many conversations on this and other points connected with midwifery, I was induced to add, inconsiderately I admit, these words, "I think I should not in future remove the attached placenta till after the uterus was restored to its right position."

It was not long before I had an opportunity of testing this method of procedure. My volume was published in 1820, and in 1821 I was sent for by a friend to the case above alluded to, where I found the uterus inverted with the placenta adhering. I did not hesitate in proposing the method suggested, and my friend and myself made attempts, as long as we felt justified, to re-invert the uterus without separating the placenta, but all in vain. We were, therefore, under the necessity of detaching the placenta, and the reduction of the inversion was speedily effected, and the patient perfectly recovered.

To my friends, to the gentlemen who were attending my lectures in Medical Societies, and wherever I was able, this case of failure was made known; and when a fourth edition of my "Synopsis" was required, in 1826, the following passage was inserted at p. 158, viz., "In the last edition of this work, the following was the opinion which I gave upon this subject, viz., 'In a case of this kind, which occurred in my practice, the placenta was removed without prejudice; but I think I should not in future remove the attached placenta till the uterus was restored to its right position.' Subsequently, however, to my last edition, I was called to a woman with an inverted uterus to which the placenta adhered. I tried to effect the reduction without removing the placenta, but could by no possibility accomplish it till I had first separated the placenta. This being effected, I succeeded to my entire satisfaction in re-inverting the uterus, and the woman has since had two children born without accident or inconvenience."

I propose to send, with your permission, the particulars of four or five cases of inversion of the uterus for which I was consulted.

I am, Sir, &c.

34, Brook-street. SAMUEL MERRIMAN.

MR. STONE'S ELECTRO-BIOLOGY.

[To the Editor of the Medical Times.]

SIR,—Thinking that every subject should be candidly and calmly examined, whatever may be its apparent absurdity, I made one of an audience to witness the experiments of Mr. Stone on what he calls "the science of electro-biology." I will first simply state the facts as they occurred, and then make a few comments. I counted twenty-five persons in the theatre when Mr. Stone entered. He stated that he had never attempted his experiments before so small an audience, and told us we might have our money returned together with tickets for any future performance. Seeing that no one moved, he said that he was sorry to disappoint those who came, and therefore, if a sufficient number would come forward from the audience, he would try his influence on them. Five gentlemen presented themselves. Mr. Stone said he did not like to begin, because the average number of those he could influence never exceeded three in twenty, but he would try. He placed in the left hand of each a small button of metal, and desired them to gaze stedfastly without removing their eyes from the object for about ten or fifteen minutes, during which time he passed his hand over the forehead of each. At the expiration of about fifteen minutes he spoke separately to each, closing their eyes with his fingers, saying in rather a peremptory tone, "Now, Sir, you cannot open your eyes." Four resisted the enchantment, and opened their eyes; the fifth could not, or fancied he could not; he afterwards told me that he really tried, but in vain. Mr. Stone now said this was the test of his influence, and that when he can succeed thus far he can generally succeed further. Dismissing the four, he begged the fifth to stand before the audience, and repeated aloud the words used before, when the same result followed; the gentleman could not open his eyes. Mr. Stone then tried to make him stammer, to forget his own name, to render his limbs powerless, but he failed in all: he said that it did not often happen, when he could succeed in preventing a person from using the muscles of his eyes, that he could not influence other muscular movements. We now received tickets for another performance, and the meeting closed.

On my next visit I found upwards of sixty persons assembled: twenty-three came forward, at Mr. Stone's desire; of these, five answered the eye test, but only two could be further affected. One was a young gentleman about twenty, the other a lad of fourteen; in both instances considerable control was exhibited over the muscular system. The eldest was told to sit down in a chair; he was then directed to look into Mr. Stone's eyes, who returned the compliment from a pair of peculiarly penetrating and commanding organs. "Now, Sir," Mr. Stone said with emphasis, "you cannot rise from that chair;" and the patient (shall I call him) could not. A stick was then placed in his two hands, which he held at arms' length, and in the same forcible tone he was told, "Sir, your muscular power is gone, you cannot drop that stick;" the patient could not. The same apparent power was used to prevent him from moving from a certain point, and other experiments made on the motory power, all with success. Mr. Stone then asked the gentleman if he ever stuttered? The answer was, No. Then, said Mr. Stone, you shall now be incapable of uttering a word without stammering, and, gazing commandingly at the patient, he said, you cannot speak the word London plainly; nor could he, but stuttered very much. Now, Sir, did you ever forget your own name? No. Have you any objection to tell us what it is? My name is Cox, (I ascertained that he was a member of the Marylebone Literary Institution, well known to a gentleman sitting by me, and to many in the room.) Mr. Stone then manipulated his head, and spoke to him in the usual sharp manner: "Sir, you cannot tell me your name!" "Cox," was the reply. This occurred twice, when Mr. Stone said: "I shall succeed presently." He then held his fingers a few moments on the patient's head, and, coming round, he looked very fierce, and, with his doubled fist presented at his victim, said, with corresponding emphasis, "Now, Sir, I defy you to utter your own name;" and he could not. Mr. Cox afterwards told me "that he really tried to speak, but that something behind him, which he could not explain, appeared to prevent him." Some of these effects were produced on the other party, but the attempt to make them declare water to be vinegar or milk failed entirely. In a short conversation I had with Mr. Stone, he told me that the per centage of those who could be influenced was greater in America, more particularly in Canada, than in England; from which I infer that we have more persons with mental self-possession here than in America, although there are too many who yield themselves up to every quackery that offers itself.

Electro-biology is, of course, a phase of mesmerism; the same observations equally apply to both, and the facts exhibited by both are explicable without reference to any mysterious agency. I am willing to admit the facts, and that there was no collusion,—the parties being ignorant of each other; but I believe all the effects produced may be explained by the known laws of mind. The influence of imagination has been observed in all ages,—the curative effect of bread pills, Sir H. Davy's case of paralysis cured by placing a thermometer under the tongue daily, the miraculous cures of Prince Hohenlohe, etc., may all be referred to the influence of imagination, faith, fear, and hope. The remarkable power of a strong mind over a

weak one is not a remark of yesterday,—the commanding genius of a Cæsar, a Cromwell, or a Napoleon, resulted from this force of mind. The power of man over animals is similar, and in a very exalted state is exhibited by a Cumming and a Van Amburgh, who both possess the eyes expressive of command, and would probably make good mesmerists, or professors of electro-biology.

Let us now see whether we cannot explain by the known laws of mind, and the influence of the feelings and the passions on the animal functions, all that has ever been heard or seen of mesmerism. The above related effects appear referrible to the action of fear, produced by a powerful will over a weak one, and thus rendered incapable of exerting independent muscular power, or of having an opinion whether a liquid is water or vinegar; just as Hamlet could make a Polonius see the likeness of a camel, a whale, or anything else in the same cloud. Fear is a powerful emotion; no doubt can exist of the truth of anecdotes of the cure of disabled states of the limbs by the appalling influence of a fire, the pillage of a city, or other overwhelming calamity. Now, is it not probable that the influence of electro-biology may depend on this law of mind? Of twenty persons, two or three are found so destitute of self-possession, as to be affected by every wind that blows; whose minds are never settled, and whose nervous system is thrown into disorder by the most trifling causes. This inference is corroborated by the facts that more subjects for mesmerism are found among females, and in the least civilized communities. That faith and hope, under the excitement of mesmerism, as under that of a spurious religious feeling, have effected cures in nervous, hysterical, and other anomalous disorders, may at once be admitted as a fact. The same potent influence, of a more legitimate kind, is acquired by a physician who has obtained the unlimited confidence of his patient. Every medical man has some patients who have such confidence in him, that whatever he administers always does good; a mere visit, and a few minutes' conversation, effecting a very marked change, at least as beneficial as that produced by mesmerism.

How are the delusions of homœopathy, mesmerism, electro-biology, etc., to be met? There is only one influence that can counteract them—education. Increase the number of thinking minds, and you diminish the stock upon which quackery feeds. But we must distinguish between thinking minds, and well-stocked minds; for a man may be a walking encyclopædia, and yet be weak enough to believe any delusion, religious or medical. Education, to be efficient, must operate on the understanding, the feelings, and the will; the first must be made strong enough to overcome the pernicious influence of the other two. Where self-possession has been acquired, either from constitutional vigour of mind, or from moral power resulting from true education—where the will feels and dares assert its freedom, neither empiricism nor dogmatism, homœopathy nor mesmerism, can make the mind the victim of delusion.

I am, Sir, &c. LIONEL BEALE.

IS YELLOW FEVER AN INFECTIOUS DISEASE?

[To the Editor of the Medical Times.]

SIR,—The discussion concerning epidemic yellow fever has, even up to the present time, assumed a very discursive character, and produced an amount of most unsatisfactory statements and counter-statements, without exhibiting the least tendency to the development of a principle.

In Dr. Holland's "Notes and Reflections" there is a passage on the subject of contagion, to which I would particularly call the attention of those who are now engaged in the yellow fever controversy, for it is marked by the caution of wisdom, and the judgment of a philosopher:—

"It is a frequent mistake, in reasoning upon contagion, to consider that the infectious nature of a disease may be disproved, by showing that it has been spread without any obvious communication through man or human means. The two conditions brought into the question are in fact perfectly compatible with each other. If a virus can be transmitted from the body through a few feet of air, we are not entitled, from the partial experiments hitherto made, to set any limit to the extent to which, under favourable circumstances, it may be conveyed through the same or other medium. Common reason here concurs with our actual experience of the transmission of the virus of certain diseases in various ways and to remote distances."

We have, indeed, but to conceive the essential conditions to be in existence for the development of a disease, and it is then readily understood how this disease, or any other, may make its appearance. The following instance illustrates this point; it is recorded by Dr. Banks, of Laurenceville, U.S. A lady, aged 20, pregnant, sickened with small-pox; she "lived in an out-of-the-way place, no small-pox having been within a hundred miles of it, and no intercourse with strangers to the village, or with persons from a distance, having occurred for months. The editor of the journal in which case is inserted, refers to two cases which recently occurred in the Eastern Penitentiary of Pennsylvania in which the "separate system" is strictly enforced. In one of the cases the convict had been incarcerated for two years and the other for six."—*Med. Chir. Rev.*

There is also a case recorded, in the last-named journal, of a woman who, having undergone an attack of small-pox, gave birth to twins, the one covered with the eruption, the other entirely free from the disease. In these cases we see that an incontestibly contagious disease attacks a person at a hundred miles distant from any source of infection in the one instance; and in the other, though two beings nourished by the same contaminated blood, and encased together in the womb of the infected mother, that one develops the disease and the other is insusceptible to the influence of the infectious matter, or is incapable of developing and giving sustenance to the poison germs.

Now, according to the argument of the non-contagionist, the above recited cases should settle the incommunicability of small-pox as an incontestible fact; for where contagion can in no way be proved, and where all the most perfect arrangements for its illustration exist, the proof of contagion is not manifest. In the yellow fever controversy the contagionist endeavours to prove that, though all the concurrent circumstances and conditions save one are in existence in the city, or territory, before an outbreak of yellow fever, yet, without that one, no development of yellow fever can occur; while the non-contagionist maintains that the whole of the circumstances and conditions are there, and are capable of spontaneously elaborating the elements of disease. The latter, therefore, compels the former to prove the introduction of the *materies morbi* by the evidence of facts illustrative of contagion, and, unfortunately, points are strained to accomplish this by resorting to human intercourse, as if that were the only means of demonstrating the laws of infection. If the onus of proof in the spread of all acknowledged infectious diseases rested with the contagionist, it would be beyond the reach of the most industrious and painstaking investigator to demonstrate and make clear his position. Yellow fever, like small-pox, has been proved to be infectious; but because the appearance of these diseases cannot always be traced to infection, are we to assume that sometimes they are and sometimes they are not infectious? Such expressions would be palpably absurd. Every one, I imagine, will allow that the disease-engendering matter is always the same; now, when we speak of a disease being communicable, we do not thereby mean that a certain invariable train of symptoms of which a disease is, in nosological language, said to consist, is communicated; but we mean that a something, having the power of setting up a diseased action in the body, usually manifests its faculty by the appearance and induction of a variety of effects. These effects are the results of the operation of a special agent; they constitute the symptoms which convey to our minds, when grouped together, a definite idea; but these symptoms, or effects, may vary both in number and quality, and the material agent still be the same. Bear in mind, but for a moment, the wide distinction between a case of scarlatina simplex and scarlatina maligna; yet in both instances the same agent is at work, but the conditions and circumstances which modify its operations are various and difficult of comprehension.

The hæmogastric pestilence, as it is called by Dr. Copland, has, doubtless, also a special origin in some form of matter; the simple fact of a ship becoming a focus of infection is sufficient proof that there is a *materies morbi*, and, moreover, that it may be conveyed from place to place. If a ship can become a focus of infection in consequence of foreign contamination, and retain the power of generating or fostering the seeds of disease in regions where the affection is not known, is it not monstrous to deny, or to doubt even, but that the same law will apply to the vessel which applies to the land. It is as certain that the vessel may be the means of communicating the disease, or conveying the germs to a distant place, as that an acre or two of Bulam bog, if floated across the Atlantic, could convey the same agents to Brazil. Further, if a Bulam bog can contaminate a vessel, by what rule of common sense should a vessel be incapable of contaminating a Brazilian bog?

Your Correspondent, who considers yellow fever to be endemic, might possibly enlighten us by an abstract of his articles of faith on the cause of fever; we shall then be much better able to judge of the value of his facts.

As no two persons ever tell a story in the same manner, it is no marvel that the two narratives concerning the yellow fever should contain discrepancies. Indeed, how is it possible to arrive at any satisfactory conclusion in an argument when, perhaps, (and in the

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present case, certainly,) the argumentators are at variance in their premises?

The hypothesis of Cullen requires but one step to give us the light we require, though, unquestionably, that step is a most important one. He says of fevers,—"The remote causes are certain sedative powers applied to the nervous system, which, diminishing the energy of the brain, thereby produce a debility in the whole of the functions, and particularly in the action of the extreme vessels." I have made this quotation from Cullen, that your indigenous correspondent may have as little trouble as possible in communicating the information required. We are all aware there are certain powers, but we want to know their source; and as he is satisfied they are endemial, it would be interesting to know whether he has made any search for them, whether he has discovered they are abstract powers, or fever forces, or whether he has detected anything peculiar in the material products or properties in the Brazilian territory which elaborate or give out at certain intervals these fever forces.

I feel satisfied, Mr. Editor, that you will appreciate the motives with which I address you. We sadly want light on these important subjects, and we care not whence that light comes, if it but arrive.

The Registrar-General tells us, that in the year 1847, there were upwards of 30,000 deaths from typhus in England; and I doubt not, if we can obtain a correct interpretation of the laws by which the forces producing yellow fever in Brazil are generated or originated, we shall also find, by the aid of this interpretation, a key to decipher the mysteries of our own scourge.

An apology for the length of communication being the usual conclusion for these epistles, I beg, Sir, that you will accept the same from yours, &c. INQUISITOR.

REPORTS OF SOCIETIES.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

J. HODGSON, Esq., F.R.S., President, in the Chair.

CASE OF POPLITEAL ANEURISM TREATED BY COMPRESSION; WITH REMARKS, AND A LIST OF THE CASES TREATED IN DUBLIN.

BY O'BRIEN BELLINGHAM, M.D., F.R.C.S.I.,
Surgeon to St. Vincent's Hospital, Dublin.

THE subject of this case was a labourer, aged forty-two, who was admitted into St. Vincent's Hospital, under Dr. Bellingham's care, in November, 1850. The aneurism, which was of large size, was seated on the right side; had a strong, heaving impulse, and a short, harsh bruit was heard on auscultation over it. The treatment was commenced by placing the patient upon a very restricted diet, particularly as regards fluids (six ounces only being allowed in the day, with eight ounces of solid food,) confining him strictly to the horizontal posture, with a dose of purgative medicine each night. Under this treatment, continued for some days, the pulse, from being hard and incompressible, became soft, small, and slow. Compression was commenced December 4th, at eleven a.m., by means of two instruments, one upon the artery where it crosses the ramus of the pubis, the other, at the lower third of the thigh. At half-past eight p.m., the outlines of the aneurismal sac were more distinct; the patient's skin was cool, and he did not complain of pain. He remained awake during the night, and kept up the compression himself, the points upon which the pad of the instrument should rest having been marked with ink. Next morning, between nine and ten, on unscrewing the instrument, the pulsation of the aneurism was found to have ceased; the tumour was hard, solid, and circumscribed, and an enlarged, collateral vessel was felt over the centre of the popliteal region. Moderate pressure was continued for some days; the patient was kept in bed, and the diet was gradually improved. The tumour diminished in size, and became harder, and when the patient returned home, the limb was as strong as the other, and his general health perfectly good. Some remarks upon the treatment of aneurism by compression followed, in which the author contrasted the results of compression and the ligature, and pointed to the advantages likely to ensue from combining constitutional with local treatment. In a table appended to the paper, the author has given a list of all the cases of external aneurism treated by compression in Dublin during the last seven years, in which the seat of the disease is mentioned, the hospital or other locality where the treatment was conducted, the surgeon's name who had the management of the case; and the results are stated. Of these, it appears that twenty-six were cases of popliteal aneurism, twenty-one of which were cured; six were cases of femoral aneurism, of which five were cured, the sixth having been a form of traumatic aneurism, in which amputation of the limb was the only resource. Three were cases of brachial aneurism, of which two were cured; in the other a high bifurcation of the brachial artery existed, and two vessels required to be tied. One was a case of radial aneurism, which was cured by compression. Of the remaining five cases of popliteal aneurism, amputation of the limb was performed in one, the patient recovering; in a second, the ligature was used with success; in a third, the patient was obliged to return to his employment before the cure of the disease; the aneurism diminished in size, and the patient continued to work for above three years afterwards, when symptoms of aortic aneurism supervened, under which he sank. In a fourth the patient died of pulmonary disease, and the fifth patient, who was of a broken-down constitution, died of erysipelas.

ACCOUNT OF THE DISSECTION OF A CASE IN WHICH TWO POPLITEAL ANEURISMS HAD BEEN TREATED BY COMPRESSION OF THE FEMORAL ARTERIES.

BY PRESCOTT HEWETT, Esq.,
Assistant-Surgeon to St. George's Hospital, &c.

A man, aged 38, was admitted into St. George's Hospital, in the middle of 1848, under Mr. Cutler, with an aneurismal tumour in each ham. That on the right side, completely filling this region, was compressible, but could not be emptied; that on the left, not larger than a small egg, was hard, and to a great degree apparently solid, and with much less pulsation. The tumour on the right side had only existed three months, and nothing had been done for it. From the account of the patient, it appeared that the disease on the left side, which had begun about eighteen months back, had been treated by compression of the femoral artery, at the Wexford Infirmary, where the pressure had been kept up, more or less, for seventeen weeks, during which time the limb had regained its natural size, and the tumour was reduced to its present state, from which it has never since varied, and has caused him but little inconvenience. His general health, which had begun to give way about two years and a half back, had prevented him from following his business of musical instrument maker. When admitted into the hospital he was pallid and apparently suffering from great debility. At a consultation of the surgeons, it was determined, under existing circumstances, that compression should first be applied to the right femoral artery, and the instrument, a ring tourniquet, was so adapted as only to lessen the circulation in the limb, and to be worn for a few hours daily. In some little time the limb was reduced in size, and the tumour became smaller and firmer, but pulsation still remained. Some six weeks after his admission, and while under surgical treatment, cough and expectoration, with difficulty of breathing, made their appearance. Auscultation detected nothing abnormal about the heart, but the lungs were found to be engorged at the back part. The chest symptoms went on increasing in severity, and the patient one day suddenly brought up a large quantity of arterial blood, and died shortly afterwards. The tumour in the right ham had gone on decreasing in size, and had become firmer and more solid, but some pulsation was still felt. No change had occurred in the left ham. At the examination of the body, which took place thirty one hours after death, the left aneurismal tumour, deeply imbedded in the popliteal space, was found lying between the joint and the artery, of the size of an egg; it was pyriform in shape, and apparently quite solid; but on cutting into it, the lower half only was filled with long-standing coagula; the upper part, still presenting a cavity lined throughout by a perfectly smooth membrane continuous with the coat of the artery, merely contained some small recent clots. Of the two openings into the sac, the upper one was large, and nearly of the size of the artery; the lower one, on the contrary, was much contracted, and scarcely admitted a common-sized probe. The portion of the artery lying upon the sac was also very much contracted, but its coats were healthy, as well as those of the posterior and anterior tibial vessels, which were of their normal size. In the upper part of the popliteal, and in several parts of the femoral, there were large patches of atheroma, with three distinct aneurismal dilatations, one in the former vessel, and two in the latter. The femoral artery and vein were pervious in their whole length, and the surrounding cellular tissue was not thickened. The vein and the nerve in the popliteal space were firmly adherent to the sac with a few of the fibres of the gastrocnemius muscle. The aneurism on the right

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side, larger than a cricket-ball, was also lying between the artery and the knee, to which it was firmly adherent. It was filled with laminated coagula, save at the back part, where there was still a small channel leading from the upper into the lower part of the vessel; this channel was rough throughout, and covered with recent fibrine. The upper opening of this channel was free and smooth; the lower one was small, and below it the artery was reduced to the size of the posterior tibial. Above the aneurism, the coats of the artery were much thickened by atheroma, and here, too, about an inch and a half above the tumour, was another small aneurismal dilatation. The femoral artery presented several patches of atheroma, but it was otherwise healthy, and, as well as the vein, pervious throughout its whole course. The surrounding cellular tissue was not thickened. With regard to the popliteal vein and nerve, the appearances were the same as those observed on the left side. The thoracic aorta was extensively affected with atheroma throughout a great part of its course, and it was somewhat dilated. In its arch it presented three distinct aneurisms, one of which, the largest, was lying between the large vessels and the windpipe, into which it had burst by a small ulcerated opening, about an inch above the bronchi: the cavity of this sac was partly lined with long-standing coagula. The bronchi were filled with blood, in addition to which the lungs themselves presented several large patches of pulmonary apoplexy, and were extensively affected with emphysema. All the abdominal organs were healthy excepting the kidneys, which were somewhat smaller than natural, rough on their surface, and with several small cysts in their structure.

Mr. Macilwain thought the papers were by far too important to pass without discussion. He himself rose to solicit information. He had long since been struck with the slow progress made in the treatment of aneurism; there had been very little improvement since the time of Hunter. There was one point on which all were agreed; the proximate causes of aneurism were a diseased state of the artery, and an undue condition of the circulation. If Hunter had lived, he (Mr. Macilwain) believed he would have prosecuted his inquiries to ascertain the cause of this condition of the arteries. The greater part of the first paper was taken up in the examination of only one point of this important question,—the cure of aneurism by compression. The mode in which a spontaneous cure was obtained was a guide to the mode of treatment to be adopted, and this the author, with great ingenuity, had endeavoured to apply. There could be no doubt that the depositions on the coats of the arteries were the points mainly interesting in the pathology of this disease, and he believed that there were some gentlemen among the Fellows of the Society who, if encouraged so to do, would carry out fully and definitely the investigations now being made in a separate form into the origin of these depositions. He (Mr. Macilwain) thought it was advisable that, in cases of aneurism, they should have a more full and explicit history of the disease; too much reliance was placed on its merely local characters; and he thought that a more extensive and more accurate account should be given of its general and its constitutional indications. The actual condition of the economy, when labouring under this disease, should be investigated and ascertained.

Mr. Hodgson recommended that the inquiry on the present occasion should be limited to the actual subject of the papers before the Society; *i.e.*, the cure of aneurism by compression. The consideration of the morbid changes in the coats of arteries characteristic of aneurism might become the subject of discussion on another occasion.

Mr. Partridge suggested, that those surgeons present who had tried compression in the treatment of aneurism, should state the results of their experience. He believed it had been tried by some. He had had but little experience of it at King's College Hospital, where it had been used very imperfectly. One patient on whom it had been tried for popliteal aneurism, had screwed up the instrument until it broke; and in another case extensive sloughs formed on the inside and outside of the thigh. He (Mr. Partridge) believed that the operation had hitherto been practised in a very clumsy manner in London. If he had had such an instrument as that now exhibited to the Society, he would have used it in a case in which he had been obliged to apply a ligature to the artery, which proceeding had been followed by gangrene of the toes. He wished to know what was the experience of the surgeons of London relative to the state of the artery, where compression had been used and had failed, and what were the *post-mortem* appearances under such circumstances, when death had occurred, as there was an impression that the use of compression on the artery placed the parts afterwards in a worse condition for the application of the ligature.

Mr. Quain stated, that the observations he had had an opportunity of making differed entirely from Mr. Partridge's account of his own. He had in a few cases witnessed, in London and elsewhere, good results from the plan of treatment; and from what he had seen he looked favourably upon it. While he listened to Dr. Bellingham's paper, it struck him that the tone of one part of it was calculated, in some degree, to prevent the useful and practical portion from receiving all the attention it merited. He (Mr. Quain) was not aware of the practice being, as was expressed in the paper, "decried" out of Dublin. Indeed, the question was not, and ought not to be, so much what was thought in Dublin, in Edinburgh, or in London, as what was the fact as to the expediency of the practice. The paper of Dr. Bellingham did not contain any account of examples of aneurisms except the popliteal and femoral having been treated by compression. He himself had known it used by the late Mr. Liston in a case of aneurism of the hand. In this instance the pressure was applied judiciously and borne patiently. The patient, an intelligent man, entered well into the views of the surgeon. But the treatment failed completely; and the aneurism was cured by ligature of the brachial artery. There was more difficulty than usual in finding the artery during this operation, on account of thickening of the tissues by the previous compression; but there was little in the degree of the difficulty upon which to ground an argument against the use of compression. In thinking over this case, it occurred to him that the failure might possibly be owing to the position of a large nerve (the median) over the artery. The femoral artery has no large nerve in the same relative position. He noticed also, that Dr. Bellingham's paper gave no statement of the *post-mortem* examination of cases in which the treatment by compression had been used. Mr. Hewett, however, had communicated the dissection of one such case. He himself had seen an examination under such circumstances in which the femoral vein was found to be obliterated. Speaking off-hand, for he came to the meeting without a thought of the subject to be discussed, he could not enter at greater length into the detail of the cases he had observed.

Mr. Partridge remarked, that the statistics should state whether a cure was effected, and also whether it was permanent or not. He thought that Dr. Bellingham was justified in his remarks on the London surgeons, because they do not actually or habitually employ compression in the treatment of aneurism, as is done in Dublin, and, therefore, there must be some objection to its use, which Dr. Bellingham desired to remove.

Mr. Quain had seen cases of popliteal and femoral aneurism, in which compression had been used with success, but he could not recollect their number.

Mr. Partridge observed, that Mr. Curling and Mr. Cock were present, and he trusted they would furnish the Society with the experience of their respective hospitals, on the subject of compression in the treatment of aneurism.

Mr. Prescott Hewett could not agree with Mr. Partridge as to the non-use of compression in these cases by the London surgeons; at all events, it was tried at St. George's Hospital, before recourse was had to the ligature. It had been employed in five cases of aneurism at that hospital within the last few years; two of these were cases of popliteal aneurism, and one was a very large one. Compression was applied on the femoral artery, but after a time it was necessary to abandon it, and apply the ligature. The operation was successful in each case. He (Mr. Prescott Hewett) did not think the ring tourniquet was so clumsy an apparatus as it had been represented to be. In both these cases compression was effected by two tourniquets, each on a different part of the artery, and every care was taken to carry it out fully. In neither case was there any difficulty in the subsequent operation of applying a ligature to the vessels. In the third case, a ring tourniquet was applied on the brachial artery, on account of a diffused aneurism of the ulnar in the lower part of the fore-arm, the result of a wound. He (Mr. P. Hewett) could not agree with Mr. Quain, that the presence of a large nerve in connexion with the artery to be compressed constituted an objection to the operation; for in the case he had just mentioned a cure was effected in the course of a fortnight. In the fourth case, compression apparently cured the disease; but the patient returned three

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months afterwards with evident pulsation in the tumour. A ligature was then applied on the artery, and the patient recovered. The fifth case was that he had related to the Society in his paper during the evening. With reference to Mr. Partridge's question, he might say he had examined the parts very closely, and he could not find any thickening of the cellular tissue in the sheaths surrounding the vessels.

Mr. Curling had not had any experience respecting this plan of treating aneurism, but he had no objection to try it in a case fit for its application. He was satisfied it was a very valuable mode of treating the disease; and he thought the Profession were deeply indebted to Dr. Bellingham. He wished Dr. Bellingham had given more information respecting the mode of applying his instrument, and the parts on which pressure should be applied. There had been a case in the London Hospital, under his colleague, Mr. Ward, who was obliged to send to Dublin to obtain the apparatus. He (Mr. Curling) believed it would be better to make the compression a little below or above Poupart's ligament, to avoid pressure on the femoral vein. He thought the instrument was rather difficult of application, and he should have been glad if Dr. Bellingham had given the information he wished for.

Some interesting discussion followed, in which Mr. Macilwain, Mr. Cock, Mr. Athol Johnson, Mr. Hodgson, and Dr. Bellingham took part, but for which, on the eve of a closing volume, we cannot find room.

MEDICAL NEWS.

Royal College of Surgeons.—The following gentlemen, having undergone the necessary examinations for the diploma, were admitted members of the College at the meeting of the Court of Examiners on the 13th inst.:—

Cooper, Charles, Dublin.
Crawcour, Isaac Lionel, London.
Duncalfe, Henry, West Bromwich, Staffordshire.
Freland, John Baker, Antigua, West Indies.
Hemming, John, London.
Henderson, Joseph, Alfreton, Derbyshire.
Kelly, Thomas John, Dundalk, County Louth.
Lynch, Sidney Somerford, London.
Osborn, Charles, Bognor, Sussex.
Stead, Joseph, Manchester.

The Fellowship.—From an advertisement in our journal, it will be perceived that the next classical, mathematical, and French examinations for the Fellowship of the Royal College of Surgeons will take place on the 7th, 8th, and 9th of July, and the examinations in anatomy and physiology, and surgery and pathology, respectively on the 4th and 6th of August.

The Hunterian Museum.—This unrivalled anatomical collection, which Cuvier considered far superior to anything of the kind in Europe, was, as our readers, no doubt, are aware, purchased of the executors of John Hunter by Government, and offered, under certain conditions, to the Royal College of Physicians; which learned body not possessing the necessary funds for its due maintenance was by them respectfully declined, whereupon the Council of the Royal College of Surgeons was applied to; they readily undertook the offered charge, provided Government would afford some assistance in the necessary building for its reception. To this Government responded by the grant of 16,000*l.*, which sum was, many years after, increased by an additional sum; since which time the entire anatomical and bibliographical collection necessary for the elucidation of the former has been supported entirely from the College funds: in addition to which the Council, a short time ago, purchased the premises adjoining for the sum of 16,000*l.* The Hunterian collection having been greatly increased by purchases and donations, and with such increase a greater expenditure of cash than could be afforded from the College funds for its due maintenance, it became necessary again to apply to the Government, and we have great pleasure in directing attention to the fact, that the Chancellor of the Exchequer, in his civil service estimates for the year ending 31st March, 1852, included the sum of 15,000*l.*, which will be proposed to Parliament as an additional grant for the purpose of re-building certain portions of the College. We cordially wish the Chancellor success in his application, which there is no doubt will be agreed to by Parliament.

Obituary.—On the 6th inst., at his residence, Great Stanmore, Wm. Rogers, Esq., M.R.C.S., aged 54. On the 8th inst., at Amisten-place, Edinburgh, Dr. R. A. Miller, F.R.C.S.E. On the 13th inst., in Brunswick-square, in the 91st year of his age, Thomas Phillips, Esq., late Member of the Medical Board of Bengal.

Military Appointments.—2nd Foot: Assistant-Surgeon Henry Clinton Foss, from the 55th Foot to be surgeon, vice George Roche Smith, placed on half-pay. 55th Foot: Assistant-Surgeon Alfred Crocker, from the staff, to be Assistant-surgeon, vice Foss, promoted in the 2nd Foot. Rifle Brigade: Assistant-Surgeon Francis Reynolds, from the staff, to be Assistant-surgeon, vice Robinson, who resigns. Hospital Staff: Acting Assistant-Surgeon Francis Walters Knox to be Assistant-surgeon to the Forces, vice Reynolds, appointed to the Rifle Brigade. Acting Assistant-surgeon John Wyatt to be Assistant-surgeon to the Forces, vice Crocker, appointed to the 55th Foot.

Naval Appointments.—Assistant-Surgeon Alexander Robinson (1841) additional, of the Victory, flagship at Portsmouth, for service of a naval hospital, to the Portsmouth division of Royal Marines; James D. Cronin (1850) additional of the Victory, to be borne on the books of that vessel for service in a naval hospital; and Robert P. R. Sparrow to the Victory.

Medical Appointments and Vacancies.—Two physicians are wanted at the Western General Dispensary, New-road, in the room of Dr. Miller and Dr. Markham. Candidates must be Fellows or Licentiates of the College of Physicians. The election will take place on the 2nd of July. A resident clinical assistant is required at the Hospital for Consumption; election on the 1st of July. Mr. H. Bickerton has been appointed the House-Surgeon to the Warrington Infirmary.

Hospital for Diseases of the Chest, Brompton.—A brilliant *fête*, in aid of the funds and complete building of this excellent and most useful Charity, was held in the beautiful grounds of the Royal Hospital, Chelsea, during Tuesday, Wednesday, and Thursday of the present week. The authorities of the Royal Hospital most liberally gave the use of their splendid gardens. The officers of the six regiments of household troops, and of the Royal Artillery, including the Marquess of Anglesea and Viscount Combermere, arranged that the bands of their respective regiments should be combined on the occasion, and thus was obtained one of the most magnificent arrangements of instrumental music ever heard. 370 performers assembled, and played several overtures, marches, etc. Musical critics speak in the highest terms of praise of the success of this remarkable combination. A fancy fair was held on the same days in the grounds, and the stalls were presided over by the Duchess of Sutherland, the Marchioness of Stafford, the Marchioness of Aylesbury, Lady Combermere, Lady Shelly, Lady Pole, Lady West, and other ladies of distinction, including Mrs. Philip Rose, Mrs. Robert Montgomery, &c. The receipts on Tuesday at the doors, including patrons' tickets, were, we are informed, about 1,000*l.*, and the sale of fancy articles produced over 300*l.* The receipts on the subsequent days we have not heard, but, as they gave promise of great *éclât*, and as Prince Albert, under whose patronage, with that of Her Majesty, the festival has been held, expressed an intention of being present, we have no doubt that the Treasurer of the Hospital will have abundant sources of satisfaction in the result of the present undertaking, which seemed to be a labour of love to all those who took part in the proceedings.

The New County Lunatic Asylum, at Colney Hatch, will be opened next month. It is said to have cost nearly double that at Hanwell.

Report on the Yellow Fever of Cayenne, by Dr. Lecomte, Surgeon of the First Class:—Communicated to the Surgeon-General, for the information of the Board of Health of Cayenne.—I have the honour to forward you an account of the investigations you required respecting the actual character of the epidemic, and of the prophylactic and therapeutic measures requisite, as well as of those necessary to maintain the condition of convalescence. Although it is not my intention, nor yours, I suppose, that I should enumerate the probable or possible causes which led to the development of such a scourge, I cannot allow the occasion to pass by of quieting the minds of those who see in the painful spectacle offered by the Tartar, an undoubted proof of the conveyance of a focus of infection, and consequently of contagion. Progressing, contrary to all antecedent experience, from the south to the north of that portion of America which is under the equator, the deleterious miasm successively invaded all the points of the eastern shore, and it would have been too much to expect that French Guiana should escape. That unfortunate vessel, the Tartar, suffered more severely, both at the commencement and during the progress of the epidemic, because the whole crew, recently arrived in this country, were deprived of that power of resistance which is obtained only by acclimation. The victims from among the old

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population of the colony do not weaken this fact, for the exception does not destroy the rule. But it must not be forgotten, that a powerful will, by withdrawing one from the sad pre-occupations of the day, and causing the thoughts to dwell on the suffering that one's death would cause his family, is often equal to the immunity acquired by a long residence in the colony. It is in reality the yellow fever that we have to combat; but it presents numerous varieties, and to speak the truth, its most general character is, this time, different from that which it commonly has in its cradle,—the Antilles. *Symptoms.*—The following are the symptoms most generally noticed: At first shiverings, intense frontal cephalalgia, pains in the loins, commonly called '*coup de barre*,' (blow from a stick,) pain in the region of the stomach, nausea, soon followed by bilious vomiting, but often scanty, and varying in colour; intense fever, shown by an oscillating pulse of from 100 to 160, and by the high temperature and dryness of the skin. The suppression of urine is rarely complete at first; that of the alvine evacuations occurs more frequently. This state never lasts less than twenty-four hours, and often continues for two, three, or even four days, if therapeutic measures are not actively employed; but, without being really remittent, this fever, which is most generally accompanied by some functional disturbance of the liver, offers some very short moments of remissions; these are not precisely, and certainly not exclusively indicated by sweating; in fact, frequently within three hours after the initial shivering, sweating is very abundant, although the pulse has not lost, in the least degree, any of its tension or of its frequency. The lowering of the number of its pulsations, during the first thirty-six hours, without too great a diminution of its power, is a better diagnostic sign. When the fever continues in its full intensity, a slight icteric suffusion imparts a yellow tinge to the sclerotics, the sides of the nose, and the lower part of the face. Small rose spots, analogous to those of typhoid fever, appear on the forearms and on the upper part of the chest; the lips become dry, and the tongue red at its edge, and white or yellowish in the centre. In the majority of cases vomiting alternates with a painful dryness of the throat, causing the patient to make repeated efforts at deglutition: rumblings are caused by pressure on the iliac regions. That remarkable period of calm, which in ordinary yellow fever supervenes after the disease has continued for forty-eight hours, and which constitutes its second stage, was not noticed; the symptoms followed each other continuously, so that the fever, always persisting with a variable intensity of severe spasmodic symptoms, or of cerebral complications, in the form either of delirium or of coma, became in a degree typhoid, under which the sufferer might sink without the occurrence of either hæmorrhage or black vomit. These cases are, however, not the most numerous, for generally, epistaxis is followed by hæmorrhage from the lips, mouth, and tongue, the common percursors of vomitings, which pass rapidly from a chocolate colour to soot-black; the alvine discharges have, in five or six cases only, presented the same appearances as the *vomito-negro*. Death generally happens between the fourth and fifth days, and the diminution in the number and strength of the pulse announces its approach about twelve or eighteen hours beforehand. The prophylactic measures consist in abstaining from excesses of all kinds, in the use of nourishing food, and the moderate employment of tonic drinks, such as wine and coffee. It should be remembered, that whatever may be the state of health during which an epidemic influence may appear, it is necessary to sustain it, and to repel all causes that may interfere with it; the use of baths and of purgatives, therefore, ought to be proscribed, because of the consequent debility, by which the bather is in the course of twenty-four hours often placed at the mercy of miasmatic agents. *Treatment.*—During the period of rigors, an infusion of *ayapana* (a), or syrup of ether in coffee-spoonfuls every quarter of an hour, until two ounces and a half (sixty grammes) have been administered. If requisite, sinapisms should be applied to the extremities, frictions made with camphorated *tafia* (b), with the addition of ammonia, if reaction is established but slowly. As soon as there is heat of skin, the degree of congestion of the different organs should be attended to, especially of the brain, in order that blood may be taken by cupping, or by those leeches (c) which have been so providentially brought to our assistance. The general bleedings which the public at first rejected so unreflectingly, become, in the hands of the skilful physician, one of those heroic measures, the bold application of which reveals the highest medical talent. The tendency to constipation shows the utility of purgative enemata, the frequent use of which has been found advantageous in all stages of the disease. If the vomiting cannot be arrested, but only under such circumstances, an emetic of ipecacuanha only, in the dose of two scruples, in an infusion of camomiles, may be given. It must not be forgotten, that evacuant medicines, often of great service when one has time, and when they are ordered by an intelligent, skilful, and feeling practitioner, become dangerous when they are of a nature to cause the loss of, or derange the opportune moment for the exhibition of the sulphate of quinine: however, if the indication for purgatives be imperative, calomel may be given in combination with the sulphate of quinine, in the proportion of 12 grs. of the former to a scruple of the latter. It has appeared to me to be more prudent in general, if there has not been the slightest remission after the first twenty-four hours, to commence the administration of the quinine at once. It may then be given in the form of pills in the dose of one or two grains every hour, the doses being rapidly increased in quantity, if the febrile symptoms should become more severe. It must not be forgotten, that sulphate of quinine is the only medicine on which we can in reality rely. We must also remember, as we were reminded by an honourable and intelligent colleague, whose valuable life the devotion of every minute could not save, that in continued fever of miasmatic origin the quininic medication ought also to be continuous. In order to be successful in such cases, the salt of quinine should be exhibited boldly, and we need not fear in these serious cases to give as much as four scruples in the twenty-four hours, taking the precaution to give at least half the quantity by the rectum, and bearing also in mind that deafness, and even disordered vision, may be the result of such medication. It is far better to attack the fever by large doses of quinine, which may be suspended after two days' remission, than to go on for some time administering small doses, which are never so certain in their effects. When the strength is exhausted, and passive hœmorrhages with black vomit have supervened, tonics, stimulants, and antispasmodics should be had recourse to; ether, Hoffman's anodyne,(a) the acetate of ammonia, Madeira or Bordeaux mingled with water, and tincture of canells; pure Madeira, with from two to four scruples of sulphate of alum in the half pint (200 grammes), sulphuric lemonade *ad libitum*, the preparations of tannin, enemata of quinine, with the decoction or extract of rhatany, and two or three drachms of alcohol added, may also be of service. In almost all the stages, the application of blisters and of sinapisms of plumbago to the nape of the neck and epigastrium, thighs, and legs, according to the indications, and, as esteemed means, on the shaven scalp, offer great resources. We have not seen either hæmorrhage nor gangrene on the denuded or inflamed dermis. During convalescence the most nutritive food in the smallest compass should be given, nor should the use of wine be objected to. The preparations of iron should be given to anæmiated subjects. The sixth, thirteenth, and twentieth days should be carefully watched, dating from the last fit if the case had assumed an intermittent or remittent form, or from the first day of the attack if the fever were continued, on condition that a scruple of the sulphate of quinine was exhibited on the sixth day. Two days after the last fit the use of this anti-periodic may be, as already stated, suspended.

(a) *Ayapana*: a name given in the Brazils to a species of the genus eupatoria, of the family of the corymbiferæ, described by Ombenat by the name of *eupatorium ayapana*. Its leaves have a pleasant aromatic odour, somewhat resembling that of the Tonquin bean. It is considered to be slightly stimulant and diaphoretic, and is often used instead of tea.—*Trans.*

(b) *Tafia*: a South American brandy, obtained from the sugar cane.—*Trans.*

(c) During great part of the prevalence of this epidemic, leeches were very scarce and very dear. This will be readily admitted, when it is stated that one of the authorities proposed that a public testimonial of gratitude should be awarded to M. Z. Carnavant, of Marseilles, a merchant at Cayenne, for lowering the price of the leeches he had just received to 30 cents each, *i. e.*, from 1s to 1s. 6d, and for other kindly services rendered during the prevalence of the epidemic.—*Trans.*

(a) Hoffman's anodyne is a preparation similar to the Sp. Æth. Sulph Comp. of the London Pharmacopœia.

VETERINARY SURGEONS.—Lord Beaumont has introduced into the House of Lords a Bill to exempt veterinary surgeons, and professors and teachers of veterinary colleges and schools from serving on juries and other offices, on the ground that it is highly detrimental to the interest of their profession, and very injurious to the proprietors of horses, cattle, and other domesticated animals. By the letters patent granted to the College, veterinary surgeons are compellable to serve on juries, and to discharge county and parochial duties. They will be much indebted to Lord Beaumont, if he should carry his measure.

ON the 12th inst., 26,000*l.* were voted in the House of Commons for medicine and medical stores for the navy. Sailors must be very sickly fellows to require so large an expenditure for drugs. We will answer for it, that nothing like so large a sum is needed for the drugs annually consumed by the inhabitants of this Metropolis, who slightly exceed in number the officers and seamen of the Royal Navy.

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DEATHS *in the Metropolis for the week ending Saturday, June 14, 1851.*

Causes of Death.	June 14. 0	15	60	All Ages.	Sum of Ten Weeks.
All Causes	450	300	172	931	8539
Specified Causes	449	299	172	921	8500
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	157	25	14	196	1775
Sporadic Diseases:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	4	18	11	33	473
3. Tubercular Diseases.	60	115	9	184	1865
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	49	25	31	105	1078
5. Diseases of the Heart and Blood-vessels	3	21	8	32	283
6. Diseases of the Lungs, and of the other Organs of Respiration ...	79	27	33	139	976
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	22	20	16	58	547
8. Diseases of the Kidneys, &c. ...	...	9	4	13	96
9. Childbirth, Diseases of the Uterus	...	7	...	7	96
10. Rheumatism, Diseases of the Bones, Joints, &c.	2	6	1	9	60
11. Diseases of the Skin, Cellular Tissue, &c.	...	...	...	...	10
12. Malformations	3	...	...	3	25
13. Premature Birth and Debility ...	29	2	...	31	225
14. Atrophy	24	...	3	27	127
15. Age	...	...	35	35	429
16. Sudden	3	...	5	8	109
17. Violence, Privation, Cold, and Intemperance	14	24	2	41	307
Causes not Specified	1	1	...	10	39

TO CORRESPONDENTS.

The Editor most positively declines to receive communications or visits on the business of the "Medical Times," at his private residence. He will be found, as he has already stated, at the Office, 46, Prince-street, Soho, on Mondays, Wednesdays, and Thursdays, between 12 and 2, and there, and there only, can he consent to see gentlemen, or receive their letters.

Mr. Brady.—A letter of several pages, signed T. Brady, reached us last week. It purports to be from a person of that name practising the species of imposition termed Homœopathy, at Huddersfield. This letter, every line of which proclaims its writer's ignorance to be only equalled by his conceit and impudence, lies at our Publisher's for the owner. So long as we consider a homœopathist to be a believer in the Hahnemannic dogma and the virtues of decillionths of a grain of charcoal, so long do we pity him as one conscientiously seeking to do good, but from mental incapacity unable to comprehend the method. But when satisfied that the professed Homœopathist is as sensible of the value of the trash wherewith he is humbugging the credulous public as he is of his own moral worthlessness in professing to believe what he knows to be false, for the sake of lucre,—then we regard him with the same kind of contempt that we regard Mr. Brady, and treat his communications in the same way as we treat the present, and shall treat any similar letters that may be forwarded to our Office.

We have received from the redoubtable Homœopathist, Ramsbotham, of Halifax, a copy of the "Huddersfield Chronicle," of June 14th, accompanied with a note to ourselves, such as the genus "Holloway" alone can pen. The said newspaper contains an angry letter from this galled jade, instructing the inhabitants of Huddersfield that the Edinburgh College of Physicians is a mere hole and corner junta of apothecaries accustomed to practise physic in the Potterrow at Edinburgh.

We have only to remind our readers at Huddersfield, that the Edinburgh Royal College of Physicians is the chief medical body in Scotland; that it corresponds to the Royal College of Physicians of London, and to the King's and Queen's Colleges of Physicians of Dublin, holding a charter of incorporation from Charles II., the preamble to which charter sets forth that the College is instituted for the express purpose of saving the King's liege from the fangs of such impostures as homœopathy. We may add, that, though the Edinburgh College of Physicians is a distinct body from the Senatus of the University of Edinburgh, yet that all the members of the Senatus who have been physicians have been, in all time past, as at this moment, Fellows of the College of Physicians. And thus it follows, that the Edinburgh College of Physicians derives a lustre from all the distinguished medical professors who have adorned the Edinburgh School of Medicine from its first institution. In short, the present Edinburgh College of Physicians not only includes all the distinguished physicians of the University at present, but represents the Sibbalds, the Pitcairns, the Monros, the Whytts, the Rutherfords, the Pringles, the Cullens, the Gregories, the Hopes, the Blacks, the Hamiltons, the Duncans, of past times.

Scrutator.—Our Journal is addressed to the Profession, and we cannot help thinking that the Profession prefer to be informed of the progress of the science of medicine rather than to be entertained with the re-publication of handbills circulated by arrant quacks.

A. B.—Look before you leap. Remember the dog that dropped his bone, and grasped the shadow. A bird in the hand is worth many more than two in the bush.

A Second Year's Man.—St. Andrews, if time and cash be the objects to be saved; Edinburgh or London, if an honourable distinction be the object to be attained.

M. B. Lond.—The Secretary of State must eventually grant the graduates what they desire. In its present condition, the University is a monstrous anomaly. We have not forgotten our promise. Let us bide our time. We have marked the men.

Inquisitor.—No such thing.

A Beginner must not be disappointed. It is up-hill work at the commencement.

Juvenis.—Two letters have reached us this week bearing this signature. To the one we recommend the study of Bright's Reports: in the second volume, so far as our memory serves us, he will find the case of hemiplegia in which the injury was on the side of the cerebrum on which the paralysis existed. To the other we say, Have patience; remain a little longer, or you will fly to evils that you dream not of. We remember when we felt the same towards a senior, whom we are now conscious acted for our good, and who, now well stricken in years, we reckon among our warmest personal friends: then young, we execrated him; now of riper judgment, we profoundly respect him.

A Surgeon.—The thing is unworthy of notice. Give them rope enough. The conceit of the set is really ridiculous.

Thanks to our friend for his kindly hint. The advertising department of the Journal is strictly commercial, and, as such, does not concern the literary Editor, under whose view it seldom passes. Our friend is quite right, and his opinion will be acted upon.

Mr. Parker, of Birkenhead.—We will turn our attention to the subject.

Mr. Robertson's communication shall be attended to as early as possible.

G. S.—Richard Hubert was a celebrated surgeon in Paris in the 16th century. He was the first to obtain permission to make public anatomical demonstrations on the dead bodies of criminals, and on those of the patients deceased in the Hotel-Dieu. He obtained this privilege in 1555. Rabelais, the indecent wit and physician, was his contemporary.

Communications have been received from—

Mr. Thomas, of Bucklersbury; Dr. Cocker, of Blackpool; Mr. Harding, of Park-square East; A Reader; Mr. Parker, of Birkenhead; Dr. Robertson, of Hitchin; Mr. Ramsbotham, of Halifax; Dr. Snow Beck, of Langham-place; Allopath; Dr. Savage, of Gloucester-place; Scrutator; A. B.; M. B. Lond.; Inquisitor; A Beginner; Juvenis; A Surgeon; and G. S.

King's College, University of Aberdeen.

The Examination of Candidates for the DEGREE of M.D. will be commenced on TUESDAY, JULY 29th, and continued daily till finished; immediately after which the Graduation will take place.

Those intending to become candidates are requested to forward the necessary documents on or before JULY 18th, addressed to the Professor of Medicine.

REGULATIONS.

I. Those who possess a Diploma from a Royal College, or from the Apothecaries' Company, and who have been engaged in the practice of medicine for five years, will be admitted to examination on producing their diplomas along with satisfactory evidence of moral character, or of having attended the Classics at a university or academy of acknowledged reputation.

II. Those who commenced their medical studies before October, 1846, and who have not been in practice for five years, will be admitted to examination on producing, along with their diplomas, evidence of attendance at the Classics, of good moral character, and of having been engaged in the study of medicine for four years, during which they must have attended, in some recognised school of medicine, the following courses of Lectures:—

SIX MONTHS' COURSES.

Anatomy	2 Courses.
Chemistry	1 Course.
Materia Medica	1 Course.
Surgery	1 Course.
Institutes of Medicine, and Physiology ...	1 Course.
Practice of Medicine	1 Course.
Midwifery	1 Course.

THREE MONTHS' COURSE.

Dissections	2 Courses.
Practical Chemistry	1 Course.
Medical Jurisprudence	1 Course.
Clinical Surgery	1 Course.
Botany	1 Course.
Clinical Medicine	2 Courses.

In addition to the above, the Candidate must have attended for two years the Wards of an Hospital containing 100 beds, and during three months a Shop or Dispensary for the compounding of medicines.

A. FYFE, M.D., Professor of Medicine.

Aberdeen, 1851.

N.B.—Attempts having lately been made to impose upon medical practitioners, by offers to procure for them diplomas from the University and King's College, Aberdeen, without undergoing examination, it is hereby intimated, that this University does not grant degrees in medicine unless candidates submit to examination, conducted by the Medical Examiners, in presence of the Senatus.

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ORIGINAL COMMUNICATIONS.

SOME OBSERVATIONS ON EXCISION OF THE PELVIC EXTREMITY OF THE FEMUR.

By R. KNOX, M.D., F.R.S.E.,
Lecturer on Anatomy and Corresponding Member of the Na tional Academy of France.

I happened to be present at a meeting of the London Medical Society a short time ago, when a paper was read by Mr. Walton, Surgeon, of Grosvenor-street, Grosvenor-square, on "Excision of the Head of the Femur." Mr. Walton's paper contained a brief narrative of nearly all the cases of operations on this important joint, the hip-joint, for caries originating usually in constitutional causes, including two cases in which he had himself operated. Many valuable remarks were made by some distinguished surgeons during the discussion which followed the reading the paper, but as appeared to me, either in a wrong direction, or based on imperfect research or too narrow a generalisation. Various theories seemed to have biassed most of those who discussed the important questions very properly raised by the author of the paper. Having, during the course of a long professional life, had brought before me, again and again, the questions I allude to; having carefully weighed them at various times as experience enlarged the view I ventured to adopt; and as two of the most distinguished surgeons of the present day, appear to be antagonistic in their views in respect of the excision of the head of the femur, under almost any circumstances, I have ventured to call the attention of the Profession to questions not new to me; the pathological conditions I have often examined; and to the propriety of an operation which, modified as I shall afterwards explain, I was amongst the first to propose.

In drawing up the following memoir I have been much obliged to Mr. Walton, who kindly favoured me with a perusal of the cases contained in the paper he read to the Society.

The memoir read by Mr. Walton, as I have already said, contained briefly the results of nearly all the operations for removal of the head of the femur known to have been performed up to the present day.

During the discussion which followed, some excellent practical observations were made on the symptoms and nature of that constitutional affection which, unhappily, by attacking the extremities of the long bones, so often lays the foundation for serious articular diseases, compromising life or limb. Although dissenting from the tenor of the observations then and there made, I am fully sensible of their value, and especially of their suggestive character; and accordingly, in drawing up the following observations, I have, to a certain extent, availed myself of them. From those who have adopted hastily, as I am disposed to think, an extreme view on this important subject, I wholly dissent. According to some surgeons, excision of the head of the femur is an operation quite unjustifiable under nearly all circumstances. An extreme opinion like this is best answered by an appeal to the successful cases on record, and by pathological researches conducted carefully and by competent anatomists, into cases of caries terminating fatally without operation. The history of such cases is very curious; even with the few materials already collected, they show strongly what a bold surgeon can effect in the saving of life and limb; they prove the immense advantages to be derived from an operation based on a correct diagnosis and on sound pathological inquiry, and with this further advantage in the young, of averting deplorable lameness and distortion, as painful to witness almost as loss of limb or life. Some of these remarks, though applying more forcibly to caries in the adult, will be found to apply also to constitutional caries attacking the cancellated structure of bone.

In proof, then, that an extreme opinion condemnatory of the operation in all, or even in most cases, is wholly erroneous, is at least a hasty and ill-founded opinion, based on no extensive pathological research. I beg to offer the following cases, collected by Mr. Walton:—

Case 1.—Eliza Wingen, aged 10. There had existed morbus coxarius, terminating in dislocation of the head of the femur. Excision of the head and neck of the femur was practised by Mr. Fergusson. The head of the femur was found to be much reduced in size, and was carious. Scarcely a trace remained of the acetabulum; it seemed to have been filled up with new bone. The patient recovered. (See *Medical Times*, April 7, 1849.)

I abstain from making any remarks on the details of this case, it being put forward here merely to show the untenable character of the extreme opinions advanced by a portion of the medical press in respect of such an operation as the one I have just quoted.

It has been stated by an excellent surgeon (Mr. Lloyd), and his opinion has been echoed by others, that the surgeon ought to wait and delay operating in cases of hip disease until the constitutional disease has ceased. Now, what proof is there in the history of the above case that the constitutional disease had ceased? Is it usual for scrofula to desist from its ravages at ten years of age? and if, by an unusual combination of fortunate circumstances, the constitutional affection had really ceased in the case of Eliza Wagner, by what symptom was it known to have done so? Is it usual for surgeons to wait for the cessation of the scrofulous diathesis in white swelling of the knee-joint, or in any other disease, when death is imminent, before they consent to operate?

In respect of the condition of the acetabulum in the above case, the question is too important to be discussed in a cursory manner, when merely alluding to it as a successful case after operation. There is no proof that the acetabulum had ever been diseased; and I question the supposed deposition of bone presumed to have filled up the cavity. In very young persons—and the patient was only ten years of age—it is just possible that pelvic disease existed and had ceased prior to the operation, and that the cotyloid cavity had been filled up by a deposition of new bone. But this view of the case I am not disposed to take. It is far more probable that no pelvic caries had ever existed, or, if so, only to a small extent; and that the seeming filling up of the cotyloid cavity was due to a very different process. In the adult, whether in man or animals, after unreduced dislocation of the femur, the cotyloid cavity disappears, not by a process of filling up, but by absorption and consequent levelling of the elevated borders of that cavity. The joint being no longer used—no longer required, in fact, the acetabulum being no longer filled by its appropriate bone, the articular apparatus disappears; the synovial membrane and arthroidal cartilages break up by disintegration; the fibro-cartilaginous rim or border equally gives way, and the deep margins of the acetabulum become absorbed. It is this levelling process which makes the cavity look as if it had been filled up by new bone. The same happens to the glenoid cavity of the scapula in unreduced dislocations of the shoulder; and the total disappearance of the alveolar cavity by absorption and not by filling up, when a tooth has been extracted, is a strictly analogous process. Admitting, then, the possibility of a filling up of an articular cavity by new bone under such circumstances, in very young persons, such occurrences in the adult must be exceedingly rare.

That pelvic caries must be a frequent concomitant of caries in the femur, the pathology of scrofulous disease warrants us to assume. It constitutes, in fact, the main difficulty in all such cases. Nevertheless, it must be kept in mind, that the femur is a moveable bone, and the pelvis is a fixed one,—an important consideration in respect of an operation by which it is proposed to remove the moveable bone or fragment, leaving the fixed one to its chance of recovery when no longer exposed to contact with the diseased moveable one. It gives the pelvic bone an additional chance of recovery. At all events, matters cannot be worse than before the operation.

On the other hand, it does sometimes appear, that at a certain stage of the morbus coxarius, when dislocation has taken place, that is, when the opposing diseased surfaces are no longer in contact, the pelvic portion seems to recover. But, be this as it may, it is certain that in the caries of adults, when attacking these bones, the head of the femur may be the sole part affected; or the caries may be confined exclusively, as I shall afterwards show, to the upper surface of the great trochanter, and may easily be covered with the point of the finger. Now, as adult caries is quite incurable by any means short of the actual cautery or excision, it is not surely meant by any one to leave such cases to themselves. To these cases, confounded by most of the speakers

with the constitutional caries of young persons, I shall return afterwards.

Pelvic and femoral caries may co-exist, also, in the adult, and the difficulty of detecting this co-existence during the life of the patient is at times extremely great.

Case 2 —W. R., aged 33. In this case there was no dislocation. The acetabulum was carious around its edges, and at a small spot towards the bottom of the cavity. The head of the femur was carious, but without much loss of substance. The operation for the removal of the head of the femur was performed on the 14th June. He died on the 1st November. From June to August he improved, but afterwards retrograded. The wound had nearly healed, and he could use the limb. The head of the femur was rounded, and united by a strong dense tissue to the ileum, behind the acetabulum, where it rested on a small depression. The acetabulum was bare and rough. The lumbar vertebræ were carious; the kidneys diseased. (Mr. Smith's case, see *Lancet*, November 25th and 28th; December 9th, 1848.)

Some no doubt will be of opinion, that the operation was in this instance wholly unjustifiable. For, in the first place, a double error was committed in diagnosis. The femur was dislocated, although the opposite opinion was held prior to the operation, and extensive organic disease existed, which was not even suspected. But the difficulty of a correct diagnosis in such cases must always be borne in mind. No surgeon would object to placing a ligature on the femoral artery for popliteal aneurism, merely on a suspicion that aneurism existed on some other great arterial trunk. To refuse operating in such cases were to declare at once the inefficiency of our art, and so leave the patient to his fate.

Extreme opinions, then, such as those I allude to, merit no serious refutation. They are founded on no proper statistics; they are mere prejudices, and belong to the same category with such assertions as "the easy, safe, and speedy cure in all cases of impermeable stricture of the urethra by a bold longitudinal perinæal incision;" (a) or, again, "that most cases of scoliosis recover by management and exercise, and attention to the general health," (b)—an opinion open to the clearest refutation by any practical, conscientious man. The restricted opinions of those who suggest, that, under certain circumstances, the operation of excision of the head of the femur may and ought to be performed, merit every attention.

I may be permitted to remark here, once for all, that it must have proved a source of gratification to Mr. Walton, he having been instrumental in bringing before the Profession, prominently, this important question,—for such assuredly it is. It was my earnest desire to ascertain the opinions of practical surgeons respecting the propriety of removing the head of the femur in morbus coxarius, and in caries of the pelvic extremity of the femur, whether constitutional or otherwise, when all other curative methods had failed, and in this object I have not been disappointed. The opinions of several eminent practical men were thus accidentally elicited, and submitted to that public judgment from which there is no appeal.

II. During the last twenty-five, or it may be thirty years, the attention of surgeons has been directed to the propriety of extracting, through an external excision made for this purpose, so much of the head and neck of the femur as seemed by its presence to maintain, by its carious or diseased state, incurable sinuses, purulent and exhausting discharges, and a condition of the joint irremediable by any other treatment.

In making this *seemingly* bold attempt for the speedy cure of a hitherto intractable disease, surgeons were, no doubt, quite aware, or at least ought to have known, that the caries affecting the femur was most usually a morbid affection, not confined to this bone, but was a disease affecting simultaneously, in many cases, the pelvic bones entering into the composition of the joint; that the os innominatum, in fact, was quite as liable to constitutional or scrofulous caries as the femur itself; that both are, unhappily, most frequently simultaneously affected, and that the removal of the femoral portion of the disease (the pelvic part being beyond the reach of excision at least, if not of any surgical treatment) by no means warranted the inference, that disease in the pelvic portion would in all cases be arrested, and a speedy and safe cure be effected. But practical men were also aware, that the simultaneity of femoral and pelvic caries was not uniform; that a period arrived, sooner or later, in the progress of the disease, when surgical measures seemed indicated; and that an improved operative surgery, based on a more exact anatomy, and a sounder physiology, due chiefly to Mr. Hunter, enabled modern surgeons to attempt and execute operations with success, which in former times were never thought of.

Whilst opinions were in this conflicting state, clearly from a deficiency of facts or materials which alone could decide important questions like these, it was natural for the operative surgeon to say, "in youth constitutional disease of the joints is frequent; such diseases, when left to themselves, but too often terminate in destruction of the limb, or death of the patient. But experience has shown, that when scrofulous caries attacks the extremities of the bones forming the elbow-joint, the removal of the diseased portions of these bones is a comparatively safe and effectual operation, leading to the most beneficial results." From the elbow-joint, on which so many successful operations have been performed, an application of these views was readily made to the ankle, wrist, and other joints, remote from the trunk. The knee-joint followed as a matter of course; lastly, the shoulder and hip-joint itself. That objections should be made to rash operations on these large and important joints was naturally to be expected and approved of by the cautious; but we shall find that the objections in the main lay against rash operations merely, and not against those undertaken for the preservation of life or limb.

As the chief object of this memoir is to consider the question of removal of a portion, larger or smaller, of the pelvic extremity of the femur in cases of scrofulous, or as it is sometimes called, constitutional caries, I shall first consider this point alone; in a shorter section, I shall venture a few remarks on the excision of portions of the same extremity of the femur, in cases which, whether affecting merely the trochanters, or implicating the joint itself, cannot be so readily included under the same category. I allude, in a word, caries of the trochanters, neck, and head of the bone, occurring in the adult, at a period when it is presumed the the constitutional tendency to scrofulous disease may or must have ceased.

I pretend not to offer any opinion of my own in a dogmatic way; the truth is, that no facts or materials have been collected to enable any surgeon to do so, whatever may be his standing in the Profession. "At what stage of the disease of the hip-joint may the operation of removing the head of the femur be performed?" By "head of the femur," I do do not mean exclusively the part called the head. Scrofulous caries of the pelvic extremity of the femur is not confined to the head; the pathological condition in question extends, unhappily but too often to the neck and trochanters. Of the co-existing pelvic disease I shall speak presently. In hip-disease, then, it may be found necessary to remove by operation, not merely the head of the femur, but the adjoining portion of bone, the neck, in brief, and the trochanters.

The question I propose here for solution is more complex than will at first appear. It involves two others at least, which it is not my intention to discuss at any great length in this memoir. The first is, in what number of cases of hip-disease, whether the disease be the true morbus coxarius, the scrofulous caries of the bones forming the joint, or the more obscure affection attacking the adult, is pelvic and femoral caries simultaneous? Secondly, how is this simultaneity to be detected? And, thirdly, (for this question also merits the deepest attention from the surgeon,) does the co-existence of pelvic and femoral caries forbid all attempts at operation.

To answer all or some at least of these questions, regard must be had, first, to the local malady, and secondly, to the system at large. I shall endeavour in the course of the following observations not to lose sight of any of these questions, although it is not my intention to discuss them systematically.

1st. Without pretending to establish any rigorous line of demarcation between caries attacking the adult bone and the constitutional form of disease, known by the name of morbus coxarius, it is nevertheless certain, that when caries attacks the adult it is usually an intractable and incurable disease otherwise than by surgical means, and these must be of a bold character. No constitutional treatment will answer, because we do not know in what the constitution is at fault. When this form of disease attacks the adult bone, it may and does persist and continue until death closes the scene, thus

(a) Syme. (b) Brodie.

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enabling the surgeon to ascertain, by *post-mortem* examination, that the diseased or carious portion of bone could be covered with the extremity of the finger. The head of a trephine or a red-hot iron applied to the part during life would have saved the patient. That such an occurrence as this might happen even in scrofulous caries I do not doubt, although generally the caries is in such cases much more extensive.

Mr. Walton met with a case of caries of a small portion of the neck of the femur, which had persisted for seventeen years, and at last destroyed the patient. Mr. Syme, in the *Edinburgh Medical Journal*, Vol. XXXVI., speaks of a thigh-bone in his possession which he had taken from the body of a woman who had laboured under caries of the trochanter major of the femur for thirteen years; and the following observations bearing on this point occurred to myself very early in my professional career.

In 1816, I had charge, with others, of the detachment hospital then existing at Melsea, in Hampshire. It was an hospital which had been established there to relieve the adjoining garrisons of Portsmouth, Portsea, and Gosport, by receiving invalids coming from abroad; for the reception, also, of acute cases of disease from the regiments in garrison, whenever the regimental hospitals became crowded with sick. Among the patients and invalids thus received into Melsea Hospital was a soldier of the 14th, named Wigby. He had laboured for nearly three years under a disease which was entered on the books as morbus coxarius, treated as such, and held to be a disease of the hip-joint, hopeless, therefore, at that period, and irremedial by any medical or surgical means. At that period no proposals had been made by surgeons to excise the head of the femur under any circumstances whatever, and it was not with that view that I proposed to operate; but I felt convinced, from a variety of circumstances, that the joint was not implicated, and that the caries was actually confined to the upper and outer surface of the greater trochanter; but receiving no encouragement whatever from any of my colleagues, no operation was attempted, and the patient shortly afterwards died exhausted. On dissection, it appeared that the caries which destroyed this young soldier was limited to the outer surface of the greater trochanter; was not larger than a sixpence, and might easily have been removed with a file or with the head of a trephine. Around the caries new bone had formed to some extent, similar to what happens in necrosis around the sequestrum. The preparation was lately in the museum of Chatham. The hip-joint was perfectly sound.

The second case which occurred to me strongly resembled the one just described; it occurred in 1825 or 1826. The patient was a farmer in Roxburghshire, and the case was to me so clearly a case of caries of the great trochanter, that I at once proposed the excision of that portion of the bone, the hip joint being quite sound. As the gentleman had suffered greatly from exhaustion, it was proposed to remove him from his residence to the seaside within a short distance of Edinburgh, with a view to his being near the surgeon, and also for the recovery of strength. The patient, however, fell into the hands of Mr. Liston, one of the great cutting surgeons of the day. He took advantage of the proposal sanctioned by my diagnosis, proceeded to operate at once, without informing me of it, and prior to the recovery of any strength; the patient, as was to have been expected, died. On dissection it was proved that the disease was confined to the trochanter major, the joint being perfectly sound.

It has frequently happened to me to observe on the bodies of healthy working persons, who had died from various acute diseases, fistulous openings, which, though small, had evidently persisted for a long period. When such fistulæ have occurred in the limbs, I have traced them most frequently to some small and seemingly superficial caries in a deep bone, (femur, tibia, etc.,) so small that the whole disease might be covered with the point of the finger. The disease being incurable by any other but surgical means, continues, without extending, for years, the patient in the meantime enjoying very good health. At other times, however, the constitution gives way, exhausted by the discharge. No one can question the propriety of operating in such cases.

I now return to constitutional, or scrofulous caries, in which, although the disease may occasionally be confined to the trochanters, it unhappily more frequently extends to the joint itself, involving not merely the pelvic extremity of the femur, but the acetabulum itself. Should it appear after death that the vertebræ themselves were implicated in the disease, such a discovery need surprise no one. But let it be remembered, in criticising operations performed on femoral caries, complicated with disease of the vertebral column, that caries in these vertebræ is not an absolutely incurable disease, and that the operation, by removing at least one source of suffering, and that the greatest, does not necessarily aggravate the case nor reduce the chances of ultimate recovery.

Case 5.—Jessie Buller, aged 12. There is morbus coxarius, with dislocation of the femur. The operation of excision of the pelvic extremity of the femur was performed on the 12th of October. On the 18th December the patient was doing well. The head and cervix of the femur were carious, and the acetabulum was filled up with a soft, granulating mass, rendering it impossible to say whether or not the bone had been, in the first instance, diseased. Six months after the operation the patient died. She sank under the effects of a double psoas abscess, connected with and caused by caries of the lumbar vertebræ and of the sacrum. These facts were brought to light by a *post-mortem* examination. (See Mr. Cotton's case in *Medical Gazette* for December, 1849, and July 6, 1850.

Under more favourable circumstances this patient would have recovered. The thorax and the abdominal viscera were healthy, and nature had attempted to form a new head of the femur and a new joint, with diminutive trochanters for the attachments of muscles.

Case 6.—Humphreys, aged 8. There was morbus coxarius, with dislocation of the head of the femur. The operation was performed in 1847, and the patient recovered so far as to be able to move about on crutches whilst in King's College Hospital. Being sent to the country he improved in health, and in progression he could even use the limb by placing the toes on the ground. On his re-admission to the Hospital, during the following summer, he had greatly improved in his general health, but there was a sinus above Poupart's ligament from which was a copious discharge. The abdomen swelled, and he died in August, 1849, nearly two years subsequently to the operation. On dissection it was found, as was to be anticipated, that pelvic caries existed; the acetabulum was rough and carious, and perforated at one point. The liver was large and fatty; the state of the lungs is not mentioned in the Report of Mr. Smith. It is further mentioned in the Report, that "the head of the femur was rounded, and firmly bound to the dorsum of the ileum by a strong band of fibrous tissue." A new head must have formed there, and in some measure a new joint. A residence at the seaside, under favourable circumstances, would no doubt have restored this patient to health, notwithstanding the untoward symptom of a diseased acetabulum. Patients recover from caries of the vertebral column much more extensive than the pelvic caries was found to be in the above case. The operation prolonged life, and the patient ought to have recovered.

Before I advert to the two cases operated on by Mr. Walton, I shall venture to make a few further remarks on some cases which have occurred to others, and been operated on with various success. The first of these which I intend noticing here, is the earliest, perhaps, on record, and one, therefore, meriting particular attention. The operator was Mr. White, and the details to which, however, I need not advert at any great length, are exceedingly interesting. The brief history is as follows:—

Case 7.—John West, aged 8. Affected with morbus coxarius and dislocation of the femur. Excision of the head and neck of the bone was performed by Mr. White, and the head and cervix were stated to have been but slightly carious. But their carious state may fairly be doubted, and it is unquestionable, although the important conclusion has escaped commentators on the case hitherto, that the disease had ceased to exist prior to any operation. But great deformity existed, to remove which was Mr. White's sole object in operating. So far, then, in this celebrated case, the operation was perhaps unwarrantable, as there really was no disease, the subcutaneous section of the adductor muscles being no doubt the proper remedy. Still the case did well, and stands recorded as a successful case of operation for morbus coxarius, which it was not. (See Cooper's "Surgical Dictionary," art. "Bones.")

Case 8 has reference to a lad aged sixteen, affected with morbus coxarius, and dislocation of the head of the femur.

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This was a bold and a successful operation. It was found, on operating, that the head of the femur was carious and wasted, and the acetabulum had suffered from the same disease. It was rough and bare, and, during the operation, Mr. Fergusson used the gouge. This patient recovered about a year after the operation; he was then moving about with the aid of a stick in a way which surprised every one.

It would thus appear, that pelvic disease, when not far advanced, offers no absolute objection to the excision of the head and neck of the femur in morbus coxarius. Incredible as it may appear to some, it recovers readily enough from constitutional caries. I have my doubts as to the extensive regeneration of structures; that this takes place sometimes may be admitted; but another process, namely, the healthy consolidation of the bone, and its conversion into an ivory or porcelain-looking structure, extending from the originally cartilaginous surface to a greater or less depth into the bone, will be found, I think, to be the more usual process towards a cure after dislocations from morbus coxarius and other diseases, destroying the cartilages and synovial surfaces of bones.

Other operations and other cases have not been so fortunate; that is, I presume, the materials for a correct diagnosis were wanting.

Case 8.—This young person, a girl aged 8, was a patient in St. Thomas's Hospital. She evidently laboured under morbus coxarius. The head of the femur was excised. By the operation it was ascertained, that the acetubulum had been diseased, but had recovered with considerable loss of substance. The head of the femur was carious. Death occurred four days after the operation, from diarrhœa. The vital organs were not diseased.

The above is an extract from a note communicated to Mr. Walton by Mr. Symons. The tender age of the patient affected, no doubt, the result in this case.

The operation was more fortunate in the following case:—

Case 9.—M'Dougall, aged 11. There is morbus coxarius with dislocation; the acetabulum proved healthy, but contracted. The head and neck of the femur were carious, and were nearly gone. The operator in this case was Mr. French. (See Vol. 4 of the Proceedings of the Pathological Society of London, reported by Mr. Walton, Surgeon, London.)

I shall make a single remark upon the pathological condition of the joint in the above case, a remark which I believe will be found applicable to many others.

The terms, "acetabulum healthy, but contracted," merit particular consideration; for it by no means follows that the acetabulum had been always healthy. Its contracted state arose, no doubt, from the dislodgement of the head of the femur; but in what condition that cavity was prior to the important occurrence of its ceasing to be a non-articular cavity, does not appear. It might or it might not have been carious; now, either way it tells in favour of the operation. The case affords another instance of the fact, that whether from want of time or from the non-cessation of the caries, or from some other, perhaps constitutional cause, no new bone had formed. In the case of Highley, new bone of a stalactitic, or nodular form, had begun to form around the caries in the trochanter, although that caries had not ceased; and I have seen the same granular-looking ossific deposits take place around caries occurring on the surface of the malleoli in young persons, even when the original disease was still going on. A natural cure of caries, whether in the young or old, is by necrosis; when this happens, nature occasionally endeavours to bridge over the deficiency caused by the sequestrum; but in this she does not always succeed.

To return to the history of the operation, I beg leave to call attention to the next case.

Case 12.—The disease occurred in a girl, aged 12, and was operated on by Mr. French. There was dislocation and morbus coxarius. The head of the bone was carious, but not much wasted. The acetabulum was healthy, but contracted. This patient recovered. Mr. Walton assisted Mr. French in both these cases.

"A few days ago," observes Mr. Walton, "I saw the first of these cases. From being a most deplorable object, the girl now enjoys full health and strength. The limb is 2¼ inches shorter than the other, besides being smaller in all its dimensions. She bends and extends it well, but the power of abduction is limited."

"The second girl is still in bed, but she daily improves. Small sinuses remain in the hip, through which there is a slight discharge. It seems to me certain that she will ultimately recover, with a useful limb, though no doubt shortened."

The general want of nourishment of the limb and the causes thereof, is a physiological phenomenon well worth inquiry into; but I must leave this interesting question, with many others, to those engaged in pathological inquiries, and proceed to narrate two cases in which the operation did not answer the expectations of the operator, Mr. Walton.

Case 11.—"William White, aged 17, came under my care at the St. Pancras Dispensary, on the 21st February, 1849. He had been just discharged from University College Hospital. He had all the usual symptoms of morbus coxarius. An abscess was opened next day, which discharged about a pint of fetid pus with coagula of blood. He had hectic fever and was much emaciated. Under these pressing circumstances it was deemed advisable to excise the carious portion of the bone, whatever they might be. If pelvic disease existed, it possibly might be overcome with the gouge. The operation was accordingly performed on the 24th of March. The caries extended much further down the femur than was anticipated, and I consequently found it necessary to remove, not only the head and neck, but also the trochanters, and with about an inch of the shaft. The condition of the parts operated on was this. The capsular ligament had but a slender hold of the pelvic bones; the head of the femur was almost gone; the remaining portion rested against the margin of the acetabulum; this cavity had been denuded by disease of its cartilaginous and synovial apparatus, but otherwise did not seem diseased. I gouged out some portions of the cavity, and they appeared sound. The femoral attachment of the capsular ligament was sound.

"The patient continued to improve for two months, at which time the splint I had used was removed. The discharge had nearly ceased. Two weeks later he could rotate the limb, and raise it a little; later still, he could sit up in in bed. In June, the limb swelled, and symptoms of general disease, for the first time, appeared, and he died on the 9th of July, greatly emaciated.

"On examination after death, a few small tubercles were found in the left lung; in the right kidney, all traces of glandular structure had disappeared. An excellent false joint had formed."

This boy died, then, of scrofulous disease of the kidneys.

Case 12.—The last case I have to bring forward,—and this includes all with which I am acquainted,—was also operated on by Mr. Walton in the end of October, 1848. The boy was 12 years of age, and had been under his care in the March of that year. The history, as related by Mr. Walton, is briefly thus:—"About eighteen months before, all the symptoms of well-marked morbus coxarius came on. Losing sight of him for a time, I found that in the interval he had been under the care of Mr. Syme. This was in August. When I next saw him, he was reduced almost to a skeleton, and abscess and fever had done their worst. Soon after another abscess was opened by me on the inside the thigh, near the scrotum; from this escaped much fetid pus and blood.

"Thus reduced, there remained but one chance for life, namely, an operation, and to this I accordingly resorted. The head of the bone was not dislocated; the neck was divided with the saw close to the trochanters. The acetabulum was bare and slightly rough in the centre, and more especially where it came in contact with the head of the femur. He suffered but little from the operation. At eight of the same evening there came on a serious hæmorrhage, and before I could reach him he was dead."

A full inspection of the body could not be obtained; all that was permitted was, to examine the inside of the thigh from which the bleeding came. The abscess, it was found, had extended deep among the adductors of the thigh, insulating the great artery and veins from the surrounding textures. Where the profunda vein joined the femoral was a small ulcerated opening, and from this had arisen the hæmorrhage which had destroyed life. Accidental circumstances, then, not necessary connected with the disease which led to the operation, rendered this measure abortive in both these cases.

Other cases in which similar operations have been performed have been mentioned to me. One by Sir B. Brodie, of which I can find no record—the patient died; another by a surgeon in Sligo; and a third by Mr. Skey. Such hints,

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or notices, are of no professional value; defective in detail, they offer no materials for statistics.

I have thus, to the best of my ability, brought before my professional brethren the history of excision of the head and neck of the femur for caries, arising from constitutional or other causes, in so far as it is known to me. I have shown the difficulty of diagnosis, the doubts occasionally involving what to the inexperienced may seem a simple question, namely, the certainty that the head of the femur has abandoned the acetabulum; I have traced some, at least, of the unsuccessful cases to causes over which the surgeon could have no control; and mooted, or brought prominently forward certain pathological questions, which pathological inquiry has not yet answered. To all these points I beg to call the attention of practical surgeons; and this, in fact, was my chief object in submitting these observations to the public. To Mr. Fergusson is due the merit, by a series of operations unequalled for a judicious boldness, of proving, not merely the safety of such operations, but their comparative measure of success; he has opened up some important pathological questions, which pathologists had suffered to remain in abeyance for many years. These operations, it is true, are not "uniformly successful," nor always "easy of performance;" nevertheless, they belong to legitimate surgery, if I may so say; more extended pathological inquiries, by affording a surer diagnostic, will, no doubt, add still further to the safety of the operation. But they must not, and ought not, to be undertaken rashly, for this it is which has already brought the operation into disrepute.

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THE MEDICAL TIMES.

SATURDAY, JUNE 28.

THE COUNCIL ELECTION AT THE COLLEGE OF SURGEONS.

The Fellows of the Royal College of Surgeons will in a few days assemble to elect four of their body to seats on the Council, according to the provisions of the New Charter. It is more than probable that the double attraction of the Great Exhibition and a dinner at Blackwall, will draw from their homes many esteemed Fellows, wholly unacquainted with the claims of those who will be proposed, and not much interested in the result of the election. We anticipate a larger meeting than usual; and, as the increase must be from those who dwell afar, we beg to remind them that, by carelessly giving away their votes, they will utterly swamp the endeavours of those who wish, by their selection of men of talent and high standing, to preserve the dignity and respectability of the College. We earnestly beg all Fellows from the Provinces, who purpose taking part in the proceedings, to refer to our Number for May 31, where there is appended to the names of each of the senior Fellows a short account of his contributions to medical science.

We regretted to find at the last election, some who came to town, fretting under an imagined injury or fancied slight that they or their friends had received from the governing body of the College. They openly announced their intention of voting for any one,—no matter how objectionable he might be in the position to which they would elevate him. They patronised the "Ayes," that the affair might be sooner over, and that they might be spared a repetition of a scene, which we confess is not lively, but, when conscientiously performed, is not devoid of interest. Might we suggest to such gentlemen that until the irritation which has affected their feelings has subsided, so far as to allow them conscientiously to perform a very simple duty, to favour their brethren, both of town and country, by staying away. Mr. White Cooper will reserve seats for them at the Blackwall dinner-table.

Mr. Cæsar Hawkins and Mr. John Bishop go out by rotation, and they will, without doubt, be re-elected.

Next in order comes Mr. Gulliver, of the Royal Horse Guards. It is hardly necessary to mention how high he stands in the estimation of the scientific world. He is one of those who early cultivated the use of the microscope, and he ranks among the pioneers of that body which has contributed so largely to our knowledge of the minute structure of the tissues of the animal frame, and the changes which they undergo in disease. But then he is in the army. It must be remembered, however, that he is in the Household Troops, that hard-worked body, paraded to attend Her Majesty upon State occasions, from Buckingham Palace to the House of Lords; and sometimes, for a few weeks, to go all the way to Windsor. As railways have annihilated time and space, it may be found that Mr. Gulliver's arduous military services will not interfere with the performance of his duties as a councillor.

The Fellows must determine for themselves whether they wish to be represented by Mr. Tuson.

Next in order comes the name of Richard Owen, and we have reason to believe that the absorbing point of interest of the day will be, whether the services of such a man are to be lost to the Fellows because he is officially connected with their College. We should not like it to go forth to the world that there existed any Englishman who needed to be told what Professor Owen has done. In his department, and it is a large one, he stands the giant of his day. We have, however, heard that Professor Owen's own opinion is, that, being a paid officer of the College, he cannot with propriety hold a seat in the Council.

With the claims of Mr. Coulson, recently elected senior Surgeon to St. Mary's Hospital, we conclude these remarks. He is in extensive practice, and has for a long period been connected with several important public institutions. In the early part of his career he devoted himself to the study of comparative anatomy, as his edition of Blumenbach's work, and the articles in the Cyclopædia, published by the Useful Knowledge Society, testify. He is greatly esteemed by a large circle of professional friends as a man of talent and experience; is well known by his writings, and is of irreproachable private character.

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CENSUS OF GREAT BRITAIN FOR 1851.

The decennial Census of a nation supplies a rare opportunity for noting the past, and for contemplating the future of a people. By the Census just taken, we are made acquainted with the march of life and of death,—of waste and supply,—with respect to a country, not merely as a whole, but in every separate part. By comparing the present with bygone periods, we may augur with something of mathematical precision, what shall be the future of Britain's destinies. To the Medical Profession the facts thus to be elicited are of the greatest importance, as relating to health and disease, and more especially valuable to the physician to assist him to elucidate the phenomena of epidemics. We therefore present a general view of the Census, and refer to a few facts arising out of it.

The population of Great Britain on 31st March, 1851, was	20,919,531
„ „ June 7, 1841	18,655,981
Increase	2,263,550
The male population of Great Britain, 1851, was ..	10,184,687
„ „ 1841, ..	9,074,642
Increase	1,110,045
The female population „ 1851 ..	10,734,844
„ „ 1841 ..	9,581,339
Increase	1,153,505

Females over Males, 1851,—550,157.

England and Wales,

	1851.	1841.	Increase.
Total	17,905,831	15,911,757	1,994,074
Males	8,754,554	7,775,224	979,330
Females	9,151,277	8,136,533	1,014,744

Females over Males, 1851,—396,723.

Scotland.

	1851.	1841.	Increase.
Total	2,870,784	2,620,184	250,600
Males	1,363,622	1,241,862	121,760
Females	1,507,162	1,378,322	128,840

Females over Males, 1851,—143,540.

Islands in the British Seas.

	1851.	1841.	Increase.
Total	142,916	124,040	18,876
Males	66,511	57,556	8,955
Females	76,405	66,484	9,921

Females over Males, 1851,—9,894.

London.

	1851.	1841.	Increase.
Total	2,363,141	1,948,369	414,772
Males	1,104,356	912,001	192,355
Females	1,258,785	1,036,368	222,417

Females over Males, 1851,—154,429.

A diminished rate of increase in the last ten years has resulted, as compared with two previous decennial periods. For this, several writers, we observe, have given the influenza-epidemic of 1847, and that of the cholera of 1849 as causes. Such a representation, however, is altogether opposed to the facts, at least so far as the cholera is concerned. In England and Wales, in 1849, the cholera reduced the excess of births over deaths from a decennial average of 171,815 to 136,648, or a reduction of 35,167; but, in the next year, this loss was more than made up, when we had an excess of births over deaths beyond the average of 52,073. As to London, the same fact is observable. Here, in 1849, we had a less excess of births over deaths by 10,099; but, in 1850, this excess went beyond the average of 10 years by as much as 11,409.

The increase of population in England and Wales being, for the ten years, 1,994,074, it will be interesting to learn how this increase has been attained, and how far caused by an excess of births over deaths. As the Metropolis presents a marked exception to England and Wales without London, we shall, for the present, exclude it from our calculations. The following will then show the result:—

	Population.	
England and Wales, 1851	17,905,831	
Deduct *London*	2,363,141	
		15,542,690
„ 1841	15,911,757	
Deduct *London*	1,948,369	
		13,963,388
Increase of Population exclusive of *London* ..		1,579,302

England and Wales.

Excess of Births over Deaths.

1841	168,311	
1842	168,220	
1843	180,880	
1844	183,830	
1845	194,155	
1846	182,310	
Influenza 1847	116,647	
1848	163,261	
Cholera 1849	136,648	
1850	223,888	
Excess of Births over Deaths	1,718,150	
Deduct *London*	143,294	
		1,574,856
Increase of Population in *England and Wales*, exclusive of *London*, not accounted for by the excess of Births over Deaths		4,446

Hence we find that in England and Wales, exclusive of London, the whole increase of population among 17,000,000 people, is accounted for by the ten years' excess of births over deaths, within 4,446.

Not so as regards the Metropolis, as will be seen by the following:—

	Population.	
Metropolis, 1851	2,363,141	
„ 1841	1,948,369	
Increase of population in 10 years		414,772

Metropolis.

Excess of Births over Deaths.

1841	12,058	
1842	14,968	
1843	12,523	
1844	13,906	
1845	17,552	
1846	20,793	
Influenza 1847	7,889	
1848	13,637	
Cholera 1849	4,230	
1850	25,738	
		143,294
Increase of Population in the *Metropolis* not accounted for by the excess of Births over Deaths		271,478

Thus it would appear that the Metropolis is indebted for nearly three-fourths of its increase of population in ten years to other sources than its excess of births over deaths, in fact, that there, anomalous as it may seem, the births are of very little consequence in estimating the increase of population. A little consideration of the facts, however, will go to controvert this apparent fact, and will show that there is nothing like such an influx from the provinces or from the Continent into London, as the above result would suggest. In order to test this statement, let us see what rate of increase the excess of births over deaths presents to the population in 1841, in the Metropolis; it is this,—there is an excess of 1 birth over deaths to every 13·59 of the population. What

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is the rate in England and Wales, exclusive of London? Here there is an excess of 1 birth over deaths to every 8·87 of the population. Supposing, then, that the rate of increase by births over deaths had been in the same ratio for the Metropolis, as for England and Wales exclusive of London, we should then have the following result:—

Increase of population in the Metropolis in ten years (by the Census)	414,772
Excess of births over deaths in the Metropolis, according to the rate for England and Wales	244,630
Increase of population in the Metropolis not accounted for by excess of births over deaths	170,142

instead of 271,478, and an increase in the excess of births over deaths, to that previously shown, of 101,366. Now, we ask, whether this is not a far more probable result than that shown by the former calculation, and whether it does not point to the fact, that in London there are some 10,000 births every year *un*-registered; and then will come the question for the statist and the moralist—Who and what are these *un*-registered children?—are they not a great proportion of them illegitimate? or if not—What are the parents, and what the reason for non-registration? The tremendous disproportionate mortality of infants over those of riper years, will suggest something more than natural causes, and point to gross neglect and utter callousness (if no worse) among the non-registering parents—a point which is deserving of the immediate attention of the Registrar-General and of the Government.

It may, however, be said, that the reason why the excess of births over deaths in the Metropolis is so much less in proportion to the population than in England and Wales, is, that there is a higher rate of mortality in London. We have tested the facts in this light, and still they remain as we have stated them. The rate of mortality in England and Wales, (exclusive of the Metropolis,) was for the 10 years (1841 to 1850,) 1 in every 3·91 of the corrected population; while that of the Metropolis for the same period was 3·89. This slight difference, as against the Metropolis in point of mortality, altogether fails as an explanation of the low excess of births over deaths as compared with the excess in England and Wales; and we can only repeat and call attention to the fact, that by the births, as registered during the last ten years, little more than a fourth of the increase of population in the Metropolis according to the Census is accounted for.

THE GREAT EXHIBITION.

OBJECTS CONNECTED WITH THE THEORY AND PRACTICE OF MEDICINE AND SURGERY.

[SEVENTH NOTICE.]

In concluding our notice this week of the chemical and pharmaceutical preparations in the British collection, we shall first draw the attention of our readers to a very important and extensive manufacture,—that of alum,—which is amply illustrated by two exhibitors, Messrs. Hewlett and Compsie, and Wilson and Son. The use of alum is not confined to its medical properties; but this substance is largely employed in many manufactures, especially in dyeing, as a mordant, or means of fixing colours on cloths, etc. The manufacture is carried on very extensively in situations where alum-stone and schale are abundant. The alum ores vary considerably in their qualities and the mode of treatment required to extract the alum. They are usually stratified. Some of these ores yield the salt by simple exposure to air and water, under the influence of which chemical changes take place, and alum is directly formed. The ores themselves consist chiefly of alumina, silica, sulphur, iron, and potass; the sulphur and iron being for the most part in the form of sulphuret. Some of the ores require to be calcined, by which means they are brought into a more favourable condition for the action of air and water, and the sulphur and iron partially oxidised; others require, as we have said above, simple exposure without previous application of heat. When laid in heaps and kept damp, but not too wet, the ore gradually breaks up into layers, between which the alum forms beautiful silky crystalline flocks, somewhat resembling cotton wool. In the collections before us the alum shale, slate and schorl are exhibited in their natural state, and the various conditions between this and complete decomposition. Specimens of pyrites are also exhibited, which lie under the alum shales in the coal mines, and yield, by their spontaneous decomposition under similar circumstances, the sulphate of iron, or green vitriol. During the exposure of the ores to the humid air, the sulphur and iron attract oxygen from the atmosphere, and are converted into sulphuric acid and oxide of iron, which would combine to form sulphate of iron, but that alumina and some potass are present, which combine with the sulphuric acid to the exclusion of the iron. A sesqui-sulphate of alumina with more or less potass in the product. This salt, being soluble, is washed out by lixiviation, and as the potass is usually insufficient for the formation of alum, either the commercial carbonate of potass or chloride of potassium is added in convenient proportions, and the solution evaporated, until the alum crystallises out. The product of the first crystallisation, impure, and of a yellowish colour, is exhibited. This is re-dissolved in water, and again evaporated and crystallised, yielding a white and nearly pure product. The third solution and crystallisation completes the process. Among these collections are large masses of crystals in fine octahedra, and a complete cast of the vessel in which the alum is finally crystallised. Specimens of gigantic proportions are also exhibited on the floor of the nave, weighing several tons.

Messrs. Hewlet and Compsie illustrate, in the same manner, the manufacture of ferrocyanide of potassium. The hoofs, horns, &c., the crude potashes, with which these are calcined; the prussiate cake a nearly black mass formed by this calcination, which yields the ferrocyanide of potassium by lixiviation, and the animal charcoal, which remains undissolved, form the series illustrating the process. In addition, there are very large specimens of the ferrocyanide, and others equally large of the ferridcyanide or red prussiate, obtained by passing chlorine through a solution of the former salt, and crystallization.

Mr. Cooke exhibits a very large group of crystals of carbonate of soda, of the usual form. Mr. Hills, very beautiful crystals of nitrate of potass, prepared by a patent process; and hydro-chlorate of ammonia, in the shape of an immense basin, obtained, as most of the ammoniacal salts now are, from the liquid of gas-works.

Mr. Richardson has specimens of crude Bengal saltpetre, and an immense group of crystals of the purified nitrate of potass in prisms, many of which are more than a foot long. Mr. Stephenson exhibits large crystals of the bicarbonate of soda in segments of a rhombic octahedron; and Mr. Lindsay (23) an immense mass of crystals of proto-sulphate of iron.

A small, interesting collection, exhibited by Mr. Watt, (48,) illustrates the preparation of iodine. This consists of fucus vesiculosus and serratifolius; kelp, the ashes of these algæ, and carbonate of soda and iodine obtained from the kelp. Chloride of potassium, and crude sulphate of potass complete the collection.

Mr. Cheshire (31) shows specimens of common salt. One in the form of a fine-grained cone; the other a very large group of cubic crystals.

Hähnell and Ellis have here a collection of articles chiefly of manufacturing interest, containing, among others fine specimens of sulphur, nitrate of lead, and sulphate of soda. The collection of Messrs. Denteith and Co. is of a similar character. Chromate and bichromate of potass, the sulphates of copper and zinc, nitrate of lead, and ferrocyanide of potassium, are all in very large crystals.

Messrs. Pontifex and Wood exhibit immense masses of crystals of tartaric and citric acids as crystallized around the evaporating vessels.

Mr. Spencer exhibits a large group of crystals of sulphate of magnesia crossing each other, but the crystals are not so perfect as some we have already noticed. Also a very favourite substance among the exhibitors, the biniodide of mercury, obtained by precipitation and sublimed. There is a good specimen of caffeine, but by no means so fine as

that exhibited by Mr. Bullock. We have also a substance labelled "hydriodate of quinine," totally different in appearance from the iodide of quinine in Mr. Morson's collection. This substance is crystallized in acicular prisms of golden yellow colour, while the iodide is pure white. We are unable to determine what it really is, since we should hardly think that the presence of an equivalent of hydrogen would effect so entire a change in the character of the compound. The other specimens are benzoin, and a very excellent one of benzoic acid.

Messrs. Howard and Kent present a highly interesting and very complete collection of the cinchona barks and their products. The specimens of the alkaloids, quinine, cinchonine, and quiniodine are very excellent, and the collection includes the neutral or soluble sulphate, the common or disulphate, the hydrochlorate, phosphate, tartrate, and acetate of quinine.

Messrs. Howard and Kent also present to the notice of the public a very large and excellent collection of chemical and pharmaceutical preparations. Among these, we observed hyposulphate of soda, beautifully crystallized in hexagonal prisms, nitrate of soda, pure carbonate, sesquicarbonate, and bicarbonate (?) of soda; a series illustrative of the manufacture of iodine; biborate of soda in its native state as tincal, and purified; artificial camphor, prepared by passing hydrochloric acid gas through oil of turpentine, until it forms a mass of crystals of the substance in question; bitartrate of potass in its crude and purified states; citrate of lime, and citric acid; and a large series of the preparations of mercury. Among the latter we would especially draw the attention of our readers to the immense cakes of bichloride of mercury and calomel as they come from the subliming pots, and also to the fine crystals of the former, included in the same case.

Messrs. May and Baker have a somewhat similar collection to the last, but much less extensive; it includes camphor in the subliming glass, acetates of zinc and potass; the bichloride and chloride of mercury; some fine crystals of nitrate of silver; nitric oxide of mercury, which has undergone a change to a blackish-brown colour by the action of light; and other specimens of less interest.

The collection of Mr. Brown (7) consists chiefly of chemical substances applied to manufacturing purposes. Among these are ferrocyanide and ferridcyanide of potassium; beautiful crystals of chlorate of potass; bisulphate of potass; sulphate of zinc; crude sulphate of ammonia and hydrochlorate of ammonia from gas liquor; and chromate of potass.

Mr. Button has a collection of chemicals, among the most remarkable of which we noticed the acetate, phosphate, and chloride of cobalt; the oxalate and oxide of cerium; a beautiful specimen of chromic acid; excellent specimens of gallic and metagallic acids; crystals of the hydrate of baryta and arseniate of soda, the latter in segments of octohedra; tungstic acid as a yellow powder; nitrate of bismuth in crystals; potass, ammonia, and chrome alums; and oxalate of ammonia, and hyposulphate of soda, both in good crystals.

In the foregoing articles we have entered on a detailed examination of this, perhaps, the most magnificent series of chemical and pharmaceutical preparations ever collected in one building, whether we look to the variety of substances, the purity of the preparations, the beauty of the crystalline forms, or the monetary value of the specimens. Our enumeration may have appeared somewhat tedious, (especially as there has seemed to be a tendency to exhibit the most showy of chemical preparations,) which we have endeavoured to relieve by interspersing as many hints on the mode of preparation or manufacture and uses as we possibly could without exceeding the limits to which we had confined ourselves. We now bid adieu to the British chemical collection, and shall proceed to other departments included in our programme.

PUBLIC BATHING.—At the recent quarterly meeting of the Oxford Council a recommendation of the Committee was read, advising that 100*l.* be expended for the establishment of a bathing place in Port Meadow. This sum was considered too large for one bathing place; and it was determined to remit the question to the Committee, that they should consider the propriety of having several bathing places, and their probable expense.

REVIEWS.

Sendschreiben an Lord Ashley, M.P., über einige Punkte des Öffentlichen Wohles und der Christlichen Gesetzgebung. Von Dr. GUGGENBUHL, Gründer und Director der Heilanstalt für Cretinismus auf dem Abendberge. Basel. 1851. 4to. Pp. 30.

Letter to Lord Ashley, M.P., on some points connected with Public Hygiene and Christian Government. By Dr. GUGGENBUHL, Founder and Director of the Hospital for Cretins on the Abendberg. 1851.

This letter bears very strong testimony to the importance and necessity of sanitary reform, not only in the writer's country, but also in Great Britain. It proves that cretinism, which has hitherto been considered a congenital affection peculiar to Switzerland and the Pyrenees, is widely spread throughout Europe, and that the main cause of its development is to be found in the absence of the conditions generally essential to health. The public have hitherto followed the opinion that goitre and cretinism are identical, or at least convertible; but this is by no means the case, as both the goitre and cretinism are very frequently found unassociated with one another. The goitre may be complicated with cretinism and *vice versâ*; but, as the former is essentially an affection of puberty and maturity, the latter of infancy and childhood, they should not, nosologically, be classed together. The non-medical public do not, however, deserve the blame, which attaches to the Profession, for the absence of proper knowledge which has hitherto existed on the subject. We would wish that some of those gentlemen whose place of residence and other opportunities allow them to make observations on the subject, would take their cue from Dr. Guggenbühl, and assist to determine the real extent of cretinism in England. Dr. Guggenbühl has instituted inquiries in different parts of England, but he has found but little assistance from the medical men in the districts in which he visited. Thus we have his authority for stating, that the existence of goitre was unknown to the medical gentlemen of Derby, and yet he succeeded in finding in the village of Duffield as many as fifty families who were thus affected. Again, in Oldham, in the vicinity of Manchester, he met with some twenty cases bearing the genuine character of cretinism. It is very important, the more so as an asylum for idiots has lately been opened at Highgate, that the classification adopted by Dr. Guggenbühl, should, if correct, be speedily understood and adopted by the Profession; and this is the more imperative upon us, since he assures us that cretinism exists in Great Britain as a distinct and well-defined disease, though in a somewhat different form from what it exhibits in Switzerland. Dr. Guggenbühl distinguishes between idiocy strictly so called, and cretinism; he defines the former as mental imbecility, to an entire extinction of psychical powers, unaccompanied by bodily defects; the latter as mental imbecility accompanied by the various characters of scrofula, the potbelly, ricketty and softened bones, disordered nutrition, glandular diseases, etc. The practical conclusion that he arrives at, and which, after much opposition and with the perseverance and energy which the true spirit of charity alone could endow him with, he has demonstrated to be true,—the practical conclusion is, that cretinism is much more amenable to treatment than congenital idiocy. Dr. Guggenbühl has rarely met with a case of cretinism which was not benefitted by the appropriate remedial agents, whereas he has never cured an idiot. His experience at the Abendberg leads him to state that, provided the cretins are taken in hand at a sufficiently early age, one-third may be restored to the average condition of humanity. If this can be affirmed, after an experiment of so short a duration, there is every reason to hope that the ultimate results will be even more brilliant.

The treatment of cretinism necessarily commences with an avoidance of all those influences which may cause or tend to perpetuate the morbid conditions upon which it is based. We have seen that it is to be looked upon as essentially allied to scrofula and rickets; the entire nutrient system is at fault; everything that impedes vegetation must be avoided, everything that promotes it is to be sought after and cultivated. But, besides the ordinary conditions of sunshine, pure air, good water, and nutritious food, there are endemic influences which seem to be connected with the elevation of certain localities. Thus, in the south of Germany, cretinism is not met with at a higher elevation than 2000 feet above

the level of the sea; in Switzerland it occurs up to 3000 feet; in Sardinia at from 5000 to 6000; and in South America, at from 13,000 to 14,000. Dr. Guggenbühl having ascertained the cretinism line in Switzerland to be 3000 feet, very wisely pitched his tent at that level, in a sheltered spot, presenting a paradise to the beholder, surrounded by such a health-giving atmosphere, that while typhus is constantly raging at the foot of the Abendberg no case has occurred on its summit; while last winter the hooping-cough and measles fell upon every house in the neighbouring Interlaken, not one of the seventy-five inhabitants of the Doctor's Institution was affected. But there is a *tertium quid* in the treatment of cretinism which is as necessary to its success as any of the physical conditions to which we have alluded. It is the spirit of devotion and charity, the warmth of manly vigour and determination, combined with the soft and cheering influence of the female heart. As the child shows the first dawn of the soul by the responses it makes to the parents' love, so do these degraded offsprings of humanity first exhibit their return to the image of God by acknowledging appeals made to their hearts. Hence Dr. Guggenbühl considers that an institution for cretins should as much as possible resemble the organization of the family, and that a larger number than from thirty to fifty should not be assembled under one roof, in order that there may be no temptation to adopting a mere routine treatment. As may be supposed, *à priori*, the influence upon the poor cretin of females who possess the suitable qualifications is much greater than men, however kind-hearted, can exert; their intuitive perception of character, their tact, and patience, and endurance, suit them peculiarly to the nursing of this class of patients.

"Maternal solicitude," as the Doctor observes, "is of more value than artificial systems of education; and the virtue of the female heart finds the means of overcoming the greatest difficulties. I have repeatedly observed that cretins of the lowest order at once exhibited an attachment to females, and tried to speak after them, whilst they remained obstinately mute towards their male attendants."

As regards our own country, the Doctor observes (page 16) as follows:—

"In England, the forms of cretinism that chiefly occur, bear a 'gracile' irritable character; the bones are softened, the muscles are spasmodically affected, there are frequently neuralgic affections, and in some part it associates itself with goitre. Among 500 idiots lately found in the county of Lancaster, there are a considerable number who show the characters of cretinism. I may mention the village of Settle as containing cases whose intellectual defects, dwarfed appearance, malformed osseous system, and double rows of teeth, produce a close resemblance to the cretins of the Alps. In Silserdale, on the sea-coast; there are in one family eleven of these unfortunates. The character of endemic cretinism is, however, more marked in the West of England, in Somersetshire, where similar predisposing causes exist as we meet with on the continent. The village of Chiselborough lies in a narrow valley, surrounded on three sides by hills of from 400 to 500 feet; the climate is very mild, and the atmosphere close and confined. The great majority of the three hundred and fifty inhabitants are affected with swelling of the thyroid gland, are remarkable on account of the frequency with which they are affected with deafness, thickness of speech, and dullness of intellect, which in twenty-four persons amounts to absolute cretinism. Any one who traverses the great chain of the Alps, and devotes some attention to the pathological phenomenon, will be able to discover a similar gradation, from the mere rudimentary indications of stammering and hard hearing, to dullness and defective growth, and to the highest degrees of the evil, proving that all these are only links in the same great chain. The majority of these unfortunates at Chiselborough are three feet in height, are thick and bloated; their head is malformed, their lips tumid, the nose flattened like the negroes. I found two females who were affected in a high degree, and had borne children of good bodily and intellectual constitution; a curious fact, of which numerous instances have come to my knowledge."

Our limits will not permit us to enter more fully into the etiology or treatment of this calamitous disease at present. We have said enough to convince our readers of the importance of studying it more fully, and assisting by every means at our disposal in the determination of all its relations and bearings. The late Census might have done much to elucidate these points, but it is to be feared that no account has been taken of the existence of cretinism in Great Britain. It remains, then, for the British Association, who have already devoted some attention to the subject, to follow it up; nor would it be an unfit or unpromising subject for the Epidemiological Society to bestow its labours upon.

Practical Remarks on the Treatment of Aneurism by Compression; with Plates of the Instruments hitherto employed in Dublin, and the recent Improvements by Elastic Pressure. By JOLLIFFE TUFNELL, M.R.I.A.; Lecturer on Military Surgery in Dublin, &c. &c. Pp. 154. Dublin. 1851.

The introduction with its present object, and the perfecting of the treatment of aneurism by compression, is due to the surgeons of the Dublin school. Mr. Tufnell's "Practical Remarks" were delivered in the form of clinical lectures on a case which lately occurred in the hospital to which he is attached.

As this case is one of extreme interest, and illustrates well the advantage, in some cases, to be derived from the employment of compression in the treatment of aneurism, we shall give an abstract of it.

H. A., aged 27, a sawyer, first came under observation November 3, 1847. H. A. was a man of intemperate habits, and generally out of health. The tumour formed by the aneurism filled the whole popliteal space, measuring 3½ in. by 3 in.; its contents were perfectly fluid; a loud bruit-de-souffle accompanied the entrance of the blood; the centre of the tumour was painful; the integuments covering the sac, though not discoloured, still feeling to the touch scarcely thicker than a crown piece. Pressure on any part of the femoral artery completely controlled the pulsation. There was numbness of the foot and leg, and œdema of the limb.

The treatment was commenced November 5, 2 p.m., by the abstraction of 12 oz. of blood, and the administration of an aperient. At 6 p.m., pressure was applied upon the artery at the groin, and, by the ring tournequet, on the artery in the middle third of the thigh. The pulsation in the aneurism was entirely checked. The patient was instructed how to alternate pressure. At 6 a.m., the pressure having become irksome, the instruments were removed. On the second day the pressure was re-applied at 10 a.m., and continued throughout the day. On the third day, the limb having become more œdematous, it was elevated on a stretcher, and a flannel bandage applied.

On the seventh day he was suddenly awoke by a burning pain in the tumour and leg, which for two hours was very severe; it then gradually subsided, and upon removing the pressure all pulsation had ceased.

On the eighth day *the sac was solid*, not the slightest thrill through the tumour; the temperature of the limb was natural, and slight numbness only remained.

On the 10th of December the man returned to his work, and was employed uninterruptedly until November, 13, 1848. He then complained of pain in *the opposite* knee, and on November 26th a tumour was found in that popliteal space, 2½ in. by 1½ in., the contents of which were fluid, the entrance of the blood being accompanied by a loud souffle.

Nov. 27, 1848.—Compression was a second time commenced and maintained at intervals, being, however, generally relaxed at night.

On the 6th of January, considerable improvement having taken place in the tumour, he was allowed to leave his bed, wearing the instrument on the outside of his dress. On the 9th a sudden sense of faintness supervened, succeeded by a burning pain in the aneurism and down the outside of the leg; on this diminishing, pulsation had ceased in the aneurism; pressure was continued for forty-eight hours longer, and then removed. By the 10th of February the only sign of the aneurism was a small hard body, the size of a bean, which lay in the course of the popliteal artery. At this date the patient had been at work three weeks. On the 23rd of August, 1850, the patient was examined by Sir B. C. Brodie, and no trace of either aneurism could be detected; but on the 2nd September, upon examination of the left thigh, an aneurism of the femoral artery was detected in the tendinous canal of the abductor muscles. On September 10th, the tumour having attained the size of a Florence flask, compression was again had recourse to.

On the 14th day, consolidation of the contents of the aneurism took place, accompanied, as on former occasions, by the accession of burning pains. Shortly after the patient returned to his work, and is now, 1851, constantly employed

at this trade. This case appears to us to prove, indisputably, that compression is in some cases to be preferred to the ligature in the treatment of aneurism.

"Compression," says Mr. Tuffnell, "I advocate only in cases where the sac is entire, and where sufficient room exists for applying the pressure on two points of the artery above;" but he adds, "although *as a general principle* I advocate the employment of two points of pressure, yet I by no means hesitate to employ a single instrument, and give the patient every chance, prepared at the same time to use the ligature if any necessity arise."

In order to secure the full advantages of compression, resort must be had to constitutional treatment. Aneurisms occur in the robust, and in "those in a nervous and anæmic state." In the former case a spare diet must be enjoined; and, should that fail to cause reduction in the pulse, then recourse should be had to venesection.

The existence of pallor, general cachexia, and œdema of the lower extremities, Mr. Tuffnell considers to be no reason for rejecting the treatment by compression; but they indicate the necessity for the administration of chalybeates.

For a description of the instruments to be employed for compressing the artery, we must refer to Mr. Tuffnell's book, as it would be unintelligible without the plates. Those recommended appear well suited to effect the desired object. From a table containing all the cases of aneurism treated by compression in Dublin, from October 1842 to March 1851,—in all thirty-nine cases. We learn that in thirty the cure has been complete; in one, compression was discontinued, the aneurism not subsequently increasing in size; in two the ligature was resorted to, and the arteries tied with success; in three amputation was necessary; in one death ensued from erysipelas; and in two death occurred from old-standing disease of the heart. As to the two cases in which the ligature was employed subsequently to the use of compression, one was that of a patient whose excessive irritability prevented the pressure being persevered in; the other, that of a man whose brachial artery bifurcated unusually high, and, consequently, the compression being exercised on one branch only, the circulation in the sac was not prevented; amputation was performed in three cases, and in all would have been required, even if the artery had been tied instead of compressed. The history of the two cases in which death followed compression from old-standing heart diseases, clearly proves that compression had no effect in causing the fatal termination. The erysipelas which carried off the other case was undoubtedly excited by the action of the compressor, but then erysipelas was prevalent in the ward at the time.

One great advantage in the treatment here recommended over the ligature, is the facility with which it may be employed at the house of even a poor patient.

We strongly recommend Mr. Tuffnell's work to the attention of our surgical readers. The treatment of aneurism by compression,—its principle and method of employment,—is not sufficiently understood in this country. English surgeons must learn a lesson from their Irish brethren.

Observations on the Diseases of the Rectum. By T. B. Curling, F.R.S., Surgeon to, and Lecturer on Surgery at, the London Hospital, &c. Pp. 123. London, 1851.

This book is divided into twelve chapters. In the first, Mr. Curling makes some introductory observations on diseases of the rectum; the persons most liable to such diseases; the instruments employed for examining and making applications to the rectum; and the advantages of chloroform. In the second chapter, the subject of irritable ulcer of the rectum is considered, its seat, symptoms, and treatment; and also sores and ulcers at the margin of the anus, and their treatment. The irritable ulcer of the rectum is very generally at the back part, towards the sacrum. If the rectum be not distended, it may have the appearance of a fissure, and by that name it frequently passes. If the edges be somewhat indurated, such an ulcer may be detected by the finger, but otherwise the speculum must be used for its detection. The suffering produced by the ulcer may be considerable, and is often more severe after defecation than during the actual passage of the stool; at the same time, it may be constant. The evacuations are often streaked with blood. The character of the pain is sharp and lancinating; the least pressure on the anus gives uneasiness; the irritation may extend to the bladder, and produce painful micturition. Women are more subject than men to the irritable ulcer of the rectum, and especially single women, and those of an hysterical temperament; it is most common in the middle period of life. The existence of these ulcers are often overlooked, and many symptoms, as a consequence, are inexplicable. The pain experienced when any attempt is made to examine the rectum, in these cases, sometimes excites spasmodic contraction of the sphincter, and, as a consequence, forcible closure of the anus. In such cases, chloroform may be administered with the best effect. "This ulcer seldom heals under the influence of local applications. The treatment is a longitudinal incision through its centre, including the sphincter muscle." The muscle is thus placed at rest for a time, and the passage enlarged. There is little or no danger of troublesome bleeding from the operation. The operation at once relieves most remarkably the severe symptoms. If the ulcer heal but slowly, it may be touched with a solution of nitrate of silver. "No weakness of the muscle results from division of the sphincter, its functions being perfectly performed afterwards." As to the linear abrasions or chaps, and small sores occasionally found at the outer edge of the sphincter, they are best treated by the application of a piece of lint dipped in black wash, or by a lotion of oxide of zinc (3j to 3v)). The small sores require sometimes to be touched with the point of the lunar caustic.

In the third Chapter Mr. Curling considers spasm of the sphincter, which, he says, occurs only in hysterical women, or as a consequence of some local irritation. The fourth Chapter, on Hæmorrhoids, is a very good one. Speaking of loss of blood from the hœmorrhoidal veins, Mr. Curling says:—

"Periodical losses of blood of this character from the hæmorrhoidal veins relieve congestion of the kidneys and liver, help to ward off attacks of gout, and prevent fits of apoplexy. They are not, therefore, to be interfered with, unless, by their long continuance, they are exhausting the patient's powers."

The bleeding which most commonly occurs from internal piles, Mr. Coulson says, is undoubtedly arterial, taking place from arteries enlarged by the disease. On examination, the surgeon, he adds, may discover a red fungous-looking mass, from which the bleeding is seen to proceed; and sometime a small artery may be observed at the apex pumping out blood. Mr. Coulson regards the opinion, that hæmorrhage of this kind is good for the health, as quite a mistaken notion. It is highly important that the surgeon should distinguish bleeding taking place as a consequence of *local disease*, from that which arises from a constitutional plethora or congestion of the internal organs.

For the removal of large piles, Mr. Curling prefers the ligature, the patient being put under the influence of chloroform before its application.

In the fifth chapter, Prolapsus of the Rectum is treated of, and in the sixth, Polypus of the Rectum. Polypus of the rectum is a growth arising from the mucous membrane, and attached by a narrow pedicle. It is a rare affection, and usually occurs in early life. It is attended by no suffering. The remedy is removal by ligature. In his seventh chapter, Mr. Curling considers Fistula in Ano. Contrary to the opinion of Sir B. Brodie, Mr. Curling says that he has met, in a few instances, with a fistulous opening near the anus, in which no communication with the bowel could be found on the most careful examination. When the internal opening is more than an inch and a half above the external sphincter, the division cannot be made without risk of hæmorrhage, and death has been known to occur from such bleeding. These cases Mr. Curling recommends to be treated with a ligature.

Chronic ulceration of the rectum constitutes the subject of the Eighth Chapter. Stricture of the rectum that of the Ninth. The most common cause of stricture of the rectum is chronic inflammation of the submucous cellular tissue. Sometimes, however, it arises from the cicatrization of chronic ulcers of the rectum, or of branches of continuity due to external violence. No effort to dilate a stricture of the rectum should be made unless the contraction is within reach of the finger. Incision of the indurated tissue of the stricture will sometimes facilitate subsequent dilatation by bougies. At the same time, Mr. Curling says he is averse to incisions, as the permanent gain is not much from their employment, and the operation is attended with risks. Mr. Curling prefers Liltre's operation

of opening into the colon in the left groin, in cases of stricture with complete obstruction, to the operation modified by Amussat. In the three last Chapters the subjects of Cancer of the Rectum, Fæces impacted in the Rectum, and Anal Tumours and Excrescences, are severally considered.

This book cannot fail to have an extensive circulation. It is clearly and concisely written, and is eminently practical. It supplies a desideratum we have long felt. It is better than being original,—it is very useful.

FOREIGN CORRESPONDENCE.

FRANCE.

DEATH OF M. BAUDELOCQUE.

A long and painful disease has terminated prematurely the honourable career of M. Baudelocque, one of the physicians to the Hospital for Sick Children. M. Baudelocque's life has been one of active service. At an early period he attracted notice by an excellent work on Scrofula; and the soundness of the views therein advocated soon gained public favour, followed by extensive practice. Since the death of M. Guersant, he was our leading practitioner in the diseases of children.

CONCOURS.

The jealousies and heart-burnings excited by the late Concours have hardly been appeased yet, and we are likely to have a repetition of them during the Concours for the Professorship of Internal Pathology which has just commenced. The candidates are MM. Monneret, Grisolle, Beau, Guillot, Requin, and Sanson. The latter gentleman, indeed, is a standing candidate for every vacancy which occurs in the Faculty, and we shall probably re-find him among the competitors for Royer Collard's Professorship of Medical Jurisprudence.

THE FACULTY OF MEDICINE

Has been almost totally changed from one end to the other within the last few years, so busy has death been among its members. Andral, Cruveilhier, and Orfila, are the only survivors of the old stock who remain; and, without prejudice, the new men are far inferior to their predecessors. But everything changes in these uncertain times. The walls of the great Hospital in the Clos St. Lazarre were scarcely up, when its name was altered from that of "Louis Philippe" to that of "The Republic." It has now been re-baptized, and is officially intitulated "Hôpital du Nord," although the authorities have not yet ventured to take down the Republican inscription from the portal. The name is everything here,—a sure sign of decadence.

At the Hôpital du Midi, on the other hand, where Ricord has just commenced his summer lectures, affairs are flourishing, at least if we may judge from the number of pupils, which has become so great, that Ricord is obliged to adjourn to the open air and lecture, "*sub degmine.*" More than four hundred auditors attend these celebrated lectures, and, to tell the truth, they are more amusing than any play. The Sultan sent Ricord, the other day, the decoration of the order of Nicham-Sftehar. He may well say, "*quæ regio in terris nostrinon plena,*" for his reputation is as widespread as the malady on which it is founded.

"ILLUSTRIOUS STRANGERS."

Dr. Simpson and Mr. Syme, of Edinburgh, have been with us for some time past. The little Professor (Mr. Syme) does not seem to have left his ill-humour behind him, or to have acquired any polish by rubbing along through life. Indeed, the disdainful manner in which he expressed disapprobation of French surgery at many of the hospitals, excited some attention, and elicited remarks by no means favourable to him. When a man is well received by strangers, he should, at least, show them a civil countenance.

MEDICAL JURISPRUDENCE.

The celebrated process of the Count de Bocarmé has given Orfila an opportunity of producing one of those admirable medico-legal reports, in the preparation of which he is unrivalled. Some fifteen days before the precise nature of the poison was known, Orfila, who suspected it was nicotine, had drawn up a memoir on that substance; but, of course, avoided giving publicity to his researches until the trial was nearly over. In his recent memoir, presented to the Academy of Medicine on Tuesday last, M. Orfila demonstrates that the presence of nicotine may be ascertained as certainly as that of any mineral poison; that it may be detected in the intestinal canal, even when a few drops only have been ingested: and, finally, that it may be detected in the liver and other organs, whither it has been carried by the circulation. This latter fact completes the series of important discoveries made by Orfila in 1839, when he showed that poisons might be detected in the liver, spleen, lungs, &c., even when they left no trace in the digestive canal.

GENERAL CORRESPONDENCE.

VESICO-VAGINAL FISTULA.

[To the Editor of the Medical Times.]

Sir,—Dr. Hayward, of Boston, in the United States, has published a very ingenious operation, an account of which I have lately seen, for the cure of that loathsome disease, vesico-vaginal fistula. I do not pretend to determine how far the operation is entitled to the character of an original one. Whether its effects be permanent, time, "the ultimate arbiter which alone correctly tests," according to "Scrutator," "the truth of opinion and experiments," must yet decide. Recent events cause one to be scrupulous and sceptical, for the controversy on the perineal section has shown, that "there is no new thing under the sun;" and that in the medical, as in the religious world, nothing is so common as revivals, under whose revelations, like some modern discoveries, "old things become new."

Dr. Hayward's first patient was a lady, 34 years of age, and in good health, who had been delivered of her first child with instruments, fifteen years ago, which produced the fistulous opening, "situated from an inch and a quarter to an inch and a third behind the urethra, a little on the left side. It was not large, barely sufficient to admit the end of my forefinger, and surrounded by a hardened edge, nearly of the consistence of cartilage." The patient was placed on the edge of a table, in the same position as in the operation for lithotomy. "The parts being well dilated, I introduced a large bougie," says Dr. Hayward, "into the urethra, and carried it back as far as the fistula. In this way I was able to bring the bladder downwards and forwards, so that the opening was brought into view. The bougie being then taken by an assistant, I made a rapid incision with a scalpel round the fistula, about a line from its edges, and then removed the whole circumference of the orifice. As soon as the bleeding, which was slight, had ceased, I dissected up the membrane of the vagina from the bladder all round the opening, to the extent of about three lines. This was done, partly with the view of increasing the chance of union, by presenting a larger surface, and partly to prevent the necessity of carrying the needles through the bladder. "I then introduced," continues Dr. Hayward, "a needle, about a third of an inch from the edge of the wound, through the membrane of the vagina and the cellular membrane beneath, and brought it out at the opposite side, at about an equal distance. Before the needle was drawn through, a second and a third were introduced in the same way, and these being found sufficient to close the orifice, they were carried through, and the threads tightly tied. Each thread was left about three inches in length." "I should have remarked," says Dr. Hayward, "that I found no difficulty in introducing the needles by the hand, the fistulous opening having been brought so low down and so fairly in view."

"A short silver catheter, constructed for the purpose, was then introduced into the bladder, and the patient was conveyed to bed and laid on her right side, to prevent any urine from coming in contact with the wound." Next morning the catheter was removed cleansed, and replaced; no urine had escaped by the wound. "She went on perfectly well for five days, the catheter being removed daily. The stitches were quite firm, and the wound had apparently healed in its whole extent. There was no oozing of water through it, though the patient was then lying on her back, and there was urine in the bladder, as it flowed through the catheter when introduced. I then cut away the stitches," continues Dr. Hayward, "which I found by no means easy, as I was afraid to bring down the bladder and tear open the wound." "At the end of seventeen days from the operation the wound was entirely healed. The catheter was still introduced twice or thrice a-day, and repeated for some weeks."

Dr. Hayward remarks, that in every case in which ligatures are employed, "the edges of the bladder can be brought in contact without wounding that organ." "The chance of adhesion greater, and the danger of inflammation incomparably less. By dissecting up the membrane of the vagina to a considerable extent round the orifice, and carrying the needles through this, at some distance from the edge of the wound I cannot doubt that the edges of the

bladder, which of course should be previously pared, may in almost every case be brought into close contact."

Dr. Hayward had operated on nine patients: one required to be operated on six times, another five, two twice, and five once. In three cases the operation was successful, in five the patients obtained great relief, and in the remaining two no benefit was derived from it.

When we examine the results of this operation, it does not appear that it surpasses its contemporaries. If the bladder does not re-unite, the vaginal wall will, in all probability, become so attenuated as to yield, form a pouch, and ultimately rupture. Liston says: "Attempts have been made, by paring the edges of the opening and introducing sutures, to induce the aperture to close, but little benefit, I have reason to believe, has followed this operation." Liston employed the actual cautery. Dieffenbach found the treatment by sutures, even his own running suture, always a dangerous operation. Blandin and Jobert, especially the latter, have recourse to the plastic operation, when the fistulous aperture is large. In one of Jobert's cases much inconvenience was experienced from the after-growth of the hair in the transplanted flap, which was obtained from one of the large labia. In one case out of three death followed from phlebitis. I have tried re-union by suture, but failed, whereas I have succeeded in the majority of cases by the actual cautery. Dupuytren and Liston advocate its application when the aperture is small, but I have succeeded with it when the fistulous opening admitted even three fingers.

In the application of the actual cautery in the female, great circumspection is necessary; we must be careful that the iron is only at a black heat, barely sufficient to form an eschar of the margin of the fistulous aperture: we must apply it shortly after the disappearance of the catamenial discharge, and never before its expected return. It is also necessary that the patient should take a gentle dose of castor-oil on the preceding day, and have remained in bed during that day, living on low diet. It is indispensable that she be confined to the recumbent position for three or four days after its application, still living on low or moderate diet. The cautery ought not to be repeated oftener than once in the three months. To illustrate some of these necessary precautions, I shall narrate one or two cases.

Some years ago, I was consulted by a lady, whose urinary bladder and vagina formed one cloaca, and, on interrogating her, I learned that she had been under the care of a *pure* surgeon of this city a month or two previously, who applied a cautery at incandescence, which caused the whole vesico-vaginal wall to slough away. She was thus rendered truly miserable, and incurable by cautery, knife, needles, or even the cysto-plastic operation of Jobert or Lewis. I therefore adopted the ingenious apparatus of the late Dr. Henry Graham, described in the *Edinburgh Medical and Surgical Journal* for 1841, page 378, which changed her, from being "the most miserable being," according to Dieffenbach, (a) to be a very happy woman. She could walk about her house, sit at her table, take an airing in her carriage, attend church, etc. I did not trust to her own statement about the cautery, but wrote her medical attendant in the country, a very superior surgeon, who replied, that when the lady first left him to come to Edinburgh, the fistulous communication scarcely admitted his fore and middle fingers, and that he understood the cautery had been only once applied by this *pure* surgeon.

I have witnessed numerous surgical operations go wrong, and terminate even fatally, in consequence of their performance having been undertaken without due attention to the catamenial period. Subsequent experience has confirmed the strong views I had formed and expressed on this important point in my "Practical Surgery," 2nd Edition, pages 211 and 456. At the latter page, under "Vesico-vaginal Fistula," I thus observe: "This aperture, which I have seen so large as to admit three fingers, is easily cured by touching its margin with the actual cautery, at a black heat, but not oftener than once in the three months. After the application of the cautery, lint dipped in oil should be applied, and the woman confined to bed for a day or two; indeed, the more she remains in the horizontal position, the quicker will be the cure. As in extirpation of the mamma, (see page 211,) and in every operation, the catamenial discharge should have disappeared for the time. To apply a cautery near the time of its expected return, is dangerous. I have known more than one woman fall a sacrifice to such negligence or ignorance. The cautery at incandescence is advocated by some; but I have seen the entire *bas fond* of the bladder, and contiguous surface of the vagina, destroyed by the cautery at this heat, in the hands of a surgeon of European reputation." Under "Excision of the Mamma," page 211, there are the following remarks: "Before undertaking this operation, the surgeon should interrogate the patient respecting the catamenial period, since, if done on its approach, this secretion will take place at the wound, and produce great excitement, not unfrequently erysipelas, and even a fatal issue."

JOHN LIZARS.

Edinburgh, 38, Charlotte-square.

(a) "Such unhappy beings," says Dieffenbach, "are forced to exclude themselves from society; the very atmosphere surrounding them is polluted by their presence, and even their children shun them: thus rendered miserable, both morally and physically, they yield themselves a prey to apathy, or sublime resignation alone saves them from self-destruction."

DR. WARBURG'S NEW FEBRIFUGE.

[To the Editor of the Medical Times.]

SIR,—Reports having recently appeared in the *Lancet*, and numerous others being in preparation from several of the public hospitals of London, on the subject of a therapeutic agent bearing my name, and known by the title of "*Tinctura Warburgi*," (its official designation in the Materia Medica of Austria,) I feel it due to my professional brethren in England to give some account of its history.

During my residence in British Guiana, I was induced, by the frightful mortality from fever, and the inefficiency of the existing remedies, particularly such as were employed in bilious remittent (the Colonial) fever, to seek for a remedy which could be more safely relied upon; and conceiving that this desideratum might, with the greatest chance of success, be sought among the abundant vegetation of the tropical lowlands, which is the prolific source of febrile disease; I was fortunate enough, in the year 1832, to discover an agent sufficiently powerful and efficacious in my own practice, to warrant my introduction of it to my friend Dr. Melville, Chief Staff Surgeon, then in charge of the Military Hospitals of the colony; with a view to establish with greater certainty, by more extensive trials, the real virtue of the remedy, and to regulate the mode of its administration.

Under the superintendence of Dr. Melville, and of his successor, Sir Andrew Halliday, Deputy Inspector-General of Military Hospitals, this object was satisfactorily effected; and I have thenceforth continued to employ the tincture in cases of fever, both remittent and intermittent, and in some other forms of disease, for about seventeen years; with such success, as to place it in my esteem at the head of remedial agents of its class, on the score both of efficacy and cheapness; and with this experience, fortified as it is by the corroborative reports of many of the most eminent physicians in all quarters of the globe, I do not hesitate to assert, that, in reference to intermittent and remittent disease, the materia medica of the whole world contains no remedy, simple or compound, possessing an equally curative power.

My object, however, in the publication of this letter, is to deal only with such facts as I can bring home to the mind of the reader, and on which I can defy contradiction.

The first fact to which I respectfully call attention is, that a report of the properties of my medicine was made by your own countryman, Sir Andrew Halliday, in his Official Report to the Government for the quarter ending September 30, 1834, which I here subjoin.

Extract from the Official Medical Report of Diseases in British Guiana, for the Quarter ending September 30, 1834, by Sir Andrew Halliday, M.D., Principal Medical Officer in the Colony.

"The great number of fever cases admitted into our hospitals during the last three months (a portion of what is called the sickly season in this colony), and the severity of many of these cases, have led me to investigate the subject of these fevers generally, with more than ordinary attention. All the cases I have yet seen are purely of the remittent type. In aggravated cases, the remission is scarcely perceptible, and the skin becomes yellow, or of a tawny orange colour, accompanied, in one or two instances, with what I would not hesitate to call 'black vomit.' Yet, even in the most severe cases of the 'colonial remittent,' there are many symptoms that, to the acute observer, distinguish it very materially from the *febris icteroides*, or true yellow fever.

* * * * * *

"I found that quinine, in a great many instances, had failed to produce any beneficial effect, and, in some cases, had induced a train of severe anomalous symptoms, which continued to distress the patient long after the fever had subsided. I observed, also, that when it did succeed in stopping the paroxysms, it afforded no protection whatever against their recurrence, after a time.

"Understanding that there were two medical men in Georgetown, who conceived that they had each discovered a febrifuge far more powerful than quinine or any of the cinchonas, and possessing

other valuable qualities, I did not hesitate to apply to both for some information as to their respective preparations.

"The preparation, which was known as 'Dr. Warburg's fever drops' had already obtained considerable celebrity in the colony. Many of my professional brethren in the colony spake most favourably of these drops, and I was at last induced to give them, as well as Dr. Rodie's extract, a fair trial in our hospitals.

"Dr. Warburg furnished me with a very liberal supply of his drops, which I put into the hands of the intelligent medical officers who have charge of the Regimental Hospitals of the 25th and 86th Regiments.

"Dr. Gibson of the 25th, who has had nearly seven years' experience in the treatment of this colonial fever, and is one of the most able and intelligent officers I ever met with, assures me that he never met with any remedy so certain in its effects; and that, when administered according to Dr. Warburg's plain directions, it had never failed in stopping the febrile action, and that he had never found that more than two doses were necessary.

"I strongly recommend that our medicine-chests should be furnished with an abundant supply of these drops, and Dr. Warburg has furnished me with a considerable number of bottles of them, for the use of our military hospitals in the Mediterranean, which I shall forward to the Director-General, whose attention I shall call to this invaluable remedy.

"I look forward to these drops superseding the use of quinine altogether; and, already, from what I have seen, I consider them a far more safe and efficacious remedy in every variety of remittent and intermittent fever, than any that have yet been tried.

"Demerara, "ANDREW HALLIDAY,
"October 5, 1834. "Deputy-Inspector-General.

"Certificate of Dr. James Gibson, Assistant-Surgeon of the 23th Regiment (now of the 17th Lancers).

"'I do hereby certify and attest, that with the sanction, and under the direction of the Deputy-Inspector-General of Hospitals at this head-quarters, I administered the fever drops, as discovered and prepared by Dr. Charles Warburg, and agreeably to his instructions, to upwards of fifty soldiers of the 25th Regiment, while in the Regimental Hospital at Eve Leary, labouring under severe attacks of intermittent fever.

"'That in the greater number of cases the paroxysm did not return after the first dose had been given; but in others, where it did recur at the usual hour, there was no second paroxysm, although the medicine was not repeated.

"'Given under my hand and seal at Georgetown, Demerara, in the province of British Guiana, on the 22nd day of January, 1835.

"'JAMES GIBSON, M.D.,
"'Assistant-Surgeon 25th Regiment.'"

Fact 2nd.—The second fact is the official adoption of the *Tinctura Warburgi* throughout the Austrian empire, and its general use in all the hospitals, military and civil. Most deliberate, strict, and varied, were the experiments performed by Imperial command, in no less than forty-two Public Hospitals, by the most eminent physicians of the country, under the superintendence of Dr. Knolz, Aulic Councillor and Protomedicus, prior to the official reception of the tincture into the materia medica. The Imperial Decree, dated February 10, 1847, No. 7201, announcing the fact, after detailing the mode in which this conclusion had been arrived at, sums up in these words:—"By the forgoing results, *Tinctura Warburgi* has proved itself to be a most efficacious remedy against intermittent fevers, and in intermittent diseases generally; surpassing bark and all its known preparations in the intensity and certainty of its curative powers."

So great was the confidence entertained by the Austrian Government in the efficacy of my medicine, that an Imperial Ordinance was at the same time passed, enjoining its employment by the officially appointed District Physicians, in all cases of epidemic and endemic disease, when concomitant with fever, at the public expense, whenever the patient was himself unable to purchase it.

Fact 3.—Extensive trials have been made in the Public Hospitals of Belgium, under the superintendence of Dr. Rieken, physician to His Majesty King Leopold, with such success, that the reports of the cases are now under consideration by the Académie des Sciences Médicales, at Brussels, with a view to the adoption of my tincture in the materia medica of Belgium.

I have reason to expect that similar results will shortly be obtained in Holland, through Count E. Bylandt, Physician to the King; in France, through the eminent physicians, Récamier, Majendie, Salgues, &c.; as also in Russia, where trials have recently been instituted under the superintendence of the physicians of the Emperor.

Fact 4.—Dr. Babington, of Guy's Hospital, has hitherto been the largest experimenter. The results of numerous trials (say about eighty) made by him in Guy's Hospital, and in his private practice, have obtained for my medicine his unequivocal approval; in testimony of which I subjoin a letter which I have his permission to make public:—

"31, George-street, Hanover-square, May 29th, 1851.

"My dear Sir,—As you have expressed a desire that I should furnish you with my experience as to the efficacy of the tincture bearing your name, which you have so liberally supplied both for the patients in Guy's Hospital, and for trials which I might feel disposed to make among my private patients, I sit down with great willingness to comply with your request.

"The cases in which I have used Warburg's Tincture, may be arranged under three heads:—

"1st. Cases of intermittent fever of various types.

"2nd. Cases of intermittent neuralgia, and other affections of an intermittent character, unaccompanied by fever.

"3rd. Cases of debility, requiring tonics.

"Stating the matter generally, I can with truth affirm, that in all these forms of disease I have met with the most strikingly successful results from the employment of your remedy.

"In intermittents, however severe, however confirmed, of whatever type, whether complicated with enlarged spleen or with congested liver and jaundice, it has never once out of, at least, twenty cases, failed to effect a speedy, nay, an almost immediate cure.

"The two doses, of three drachms each, taken according to your instructions, have, in several well marked and severe cases, produced the full effect of stopping, at once and permanently, all symptoms of ague.

"In some other cases, where, without an actual recurrence of the fit, the disease seemed, in the form of debility, to be hanging about the patient, this was removed by following up the two three drachm doses by doses of a single drachm each, every three or four hours, continued for a day or two.

"In the neuralgic cases this remarkable remedy has been, I may say, as successful as in intermittents, so far as the removal of intensely violent pain is concerned; but a longer continuance of the tincture was, in several cases, needed; and, although it removed the paroxysm, it did not always completely restore the health, which had been weakened and worn by the complaint. In these affections I can, however, state, that it has produced a more strikingly successful effect than any other remedy which I have tried. I am now speaking from the experience acquired in treating, at least, twelve cases.

"As a tonic in cases of debility, and especially in the stage of convalescence from fever, which is often protracted and uncertain, I have had great reason to be satisfied with this remedy.

"Its effect, in a considerable number of cases, has, in my opinion, been greater than that which would have followed the use of any other tonic with which I am acquainted. I bear in mind, at this moment, three or four cases of fever, in which the prostration was so great as to make me much fear fatal results. The tincture, however, very speedily restored the powers, and placed these cases out of danger.

"I am endeavouring to collect the accounts of all the cases I have treated with your tincture; but, in the mean time, perhaps this general statement of results may be useful to you, and I therefore do not any longer delay to supply them.

"Believe me, my dear Sir, yours ever truly,
"(Signed) B. G. BABINGTON.

"To Dr. Warburg, &c., &c."

Other trials have been made, and more are in progress under the superintendence of Dr. Burrows, of St. Bartholomew's Hospital; Drs. Garrod, Hare, and Walshe, of University College Hospital; Dr. Owen Rees, of Guy's Hospital, and several other physicians, the results of which have not yet all officially reached me; but I believe I am justified in asserting that nothing in their practice has occurred to shake confidence in the value of my tincture.

Whatever addition may hereafter be made to it, the English Pharmacopœia, at the present date of 1851, contains no agent, simple or compound, that possesses the curative power, in febrile disease, of the above medicine. The nearest to it in efficacy is that which by universal consent stands highest on the list for general application, I mean quinine. But quinine is comparatively slow and uncertain in its operation. It sometimes requires days, and even weeks, to effect decisive results, and these are not always obtained.

It is in no spirit of exaggeration that I assert broadly, and without fear of disproof, that this tincture will effect more in *hours* than quinine will effect in *days*. Two doses will generally cut short the attack, and justify the immediate resort, if necessary, to secondary tonics.

By official returns we learn, that every soldier sent to the British colonies costs the Government an average sum of upwards of 100*l.* Consequently, a renewal of that outlay is required to fill up every vacancy caused by death abroad. Every soldier in hospital in any English colony near the Tropics, costs the Government an average of 2s. per diem, and in those climates fever cases largely predominate; to such an extent, indeed, that it has been estimated by competent authority, that one-third of the aggregate garrison force is constantly in hospital, prostrate with fever, or incapacitated for duty during the protracted stage of convalescence from its attacks.(a)

Such is the effect under the usual treatment, while by the administration of my tincture the attack would, in the large majority of cases, be reduced in duration to twenty-four hours,—nay, more, it would frequently be suddenly and completely arrested by a single well-timed dose.

I make no appeal in the name of humanity, lest my supposed interest in the successful introduction of my medicine should give an appearance of selfishness to the invocation. I restrict myself, therefore, to the facts supporting its pretensions, some few of which I have already detailed; but striking as these are, they will be inconclusive and unsatisfactory to the medical world, unless confirmed by the personal experience of scientific and distinguished men of the Profession. To that confirmation I appeal in all confidence, hereby offering to supply the means of instituting trials of my medicine in public hospitals, to any of my medical brethren who will favour me with a requisition to that effect, on the sole condition that they will undertake to report the results. This has been my uninterrupted practice for the last eighteen years, during which I have gratuitously distributed upwards of 50,000 phials.

I feel that I have a Herculean task before me in my attempt to obtain the confidence of the British Medical public in a new therapeutic agent, which boldly claims to supersede, in its own peculiar field of action, the hitherto justly famed Peruvian bark and its alkaloids; but I have already surmounted so many obstacles that I do not despair of overcoming this difficulty also, and of finally realizing the climax to which I look forward, viz., the universal acknowledgment and general adoption of a medicine which I believe to be unrivalled in the safety of its administration, in the promptitude and certainty of its effect, and in the intensity of its curative power. I am, &c. CARL WARBURG, M.D.

London, June 24, 1851.

[Dr. Warburg's letter was forwarded to us by a gentleman whose eminent position and personal character command our profound respect, and entitle his wishes to the highest consideration. At the same time, however, that we give insertion to Dr. Warburg's communication, we cannot refrain from expressing our conviction, that those physicians who have used a remedy of, to them, unknown composition—a nostrum, and therefore a quack medicine—have lost sight of the position they hold, and the respect due to the College of which they are members.

By using a secret remedy, the physician encourages that which acts most injuriously on the whole Profession—quackery; and he can no longer consistently refuse to try Morrison's pills, or Holloway's ointment.

How is the physician to know that when he prescribes "tinctura Warburgi," that the patient will always obtain the same compound? He prescribes a remedy, of the ingredients entering into which he is ignorant, and so is at the mercy of the vendor of the nostrum. Again, the physician who testifies to the virtues of secret remedies encourages those members of the Profession who may discover new medicines, to conceal their composition till they have secured a pecuniary reward. And then, alas, for our character as a liberal Profession!

We entertain great respect for Dr. Babington, and the other physicians who are reported in Dr. Warburg's letter to have tried his remedy; but it does seem to us, that they have forgotten what is due to themselves, and compromised the honour of the College to which they belong.

It is generally supposed that the active principle of Dr. Warburg's nostrum is Bebeerine, an alkaloid obtained from the Bebeeru, a tree of British Guiana, well known to wood merchants under the name of "*greenheart.*"

Perhaps Mr. Savory, of Bond-street, who has already so liberally distributed, among medical men, new medicines for trial, will prepare a compound of Bebeerine, and enable the Profession to judge of its effects. Doubtless every member will as readily employ a remedy they do know, as one of which they are utterly ignorant. At any rate, Dr. Warburg may rest assured that he never will "obtain the confidence of the British Medical Public", so long as he conceals from them the composition of the remedy he offers to their notice.—ED. *Medical Times.*]

(a) In a published letter, addressed, in 1839, by Sir Andrew Halliday to Lord Howick, then Secretary of State for the Colonies, on "Sickness and Mortality in the West Indies," Sir Andrew states, on the authority of Captain Tulloch's Official Report, that, out of every 1000 soldiers received into hospital, 717 are attacked with fever, and often of a severe form,—a statement which will not be questioned by any one at all acquainted with West Indian statistics.

MR. MARSHALL'S NEW OPERATION.

[To the Editor of the Medical Times.]

SIR,—May I request the insertion of the following communication at your earliest convenience. It may be confidently stated, that a more rapid, certain, and safe method of destroying the sensitive pulp of a decayed tooth than any with which dentists are already familiar, will be regarded as a great advantage by all engaged in the practice of dental surgery. Having read in your journal an abstract of a paper communicated to the Medico-Chirurgical Society by Mr. Marshall, giving an account of his method of employing the heat of electricity for the purpose of limited cauterization in surgical disease; it struck me, that a platinum wire heated in the way he recommends, might be made available for the instantaneous destruction of an exposed tooth pulp.

On communicating this idea to Mr. Marshall, I found that it had already occurred to himself, and had been mentioned by him as one obvious application of his method of operating with the electric heat. Moreover, his experience in the matter, enabled him to suggest for the purpose a very simple and suitable apparatus, which is, in fact, a reduced copy of that which he had used so successfully in other cases, and in which the cauterising portion consists of a flattened *loop* of fine platinum wire.

The apparatus, as ultimately employed by me, may be thus described. The battery, which of course may vary according to the choice of the operator, but which it is so desirable to render as elegant and simple in arrangement as possible, is constructed on a plan similar to that of the large battery now employed by Mr. Marshall, which I believe he shortly intends to describe. It consists of only two pairs of plates contained in a single cell, and is set in action by one fluid, viz., dilute sulphuric acid. The terminal six inches of the poles, which are of copper wire plated, are supported on an ebony or ivory handle, upon the side of which one of these poles is interrupted at a particular point. The extremities of the poles are connected by a piece of platinum wire $\frac{1}{100}$ of an inch thick and $\frac{3}{4}$ of an inch long, which is bent into a loop. The sides of this loop are then brought parallel, and nearly close to each other, without touching, and it is thus introduced into the pulp-cavity of the tooth to be operated on.

By a slight pressure on one side of the ebony handle, the interrupted pole is temporarily joined, and the platinum wire immediately becomes brilliantly heated, as it lies in contact with the tooth pulp. Sometimes, however, I have found it desirable, in the first place, to complete the galvanic circuit and thus heat the platinum wire before bringing it to bear on the exposed pulp. The flexibility of the loop of wire enables the operator to bend it in any direction previously to use. In this way I have succeeded in rapidly destroying the pulp of decayed and condemned teeth, and have proceeded, after a few minutes, to the operation of filling with gold or with Asb's metallic paste. I have also destroyed, with the greatest ease and rapidity, the pulps of incisor teeth, cut off for the purpose of being pivoted.

It is obvious that this method is applicable either for the simple cure of tooth-ache, or as a preliminary step to the operation of filling. I am aware that there is nothing novel in the use of the hot wire for destroying the nerve of an aching tooth. The old village doctress has long ago cured toothache by the thrust of a hot needle or pin; and dentists occasionally use a heated wire. But the difficulty has been felt of applying the wire easily, and at a duly elevated temperature. In the method just described, this is surely, readily, and instantaneously accomplished. The vitality of the tooth-pulp is thoroughly destroyed, and it is even so far consumed or carbonised, that the operations of filling or pivoting may be at once proceeded with, instead of having to be delayed. Owing to the extreme fineness of the wire employed, the local heat, though intense, is very limited in its action, and, with due care, the tooth-substance need not suffer any appreciable injury. It may also be

remarked, that in operating on some teeth, I have found, by completing the galvanic circuit on approaching the tooth, that the light given out by the incandescent wire, aids, very remarkably, in giving a perfect view of the exact point at which the tooth-pulp is exposed.

In conclusion, I can only say, I beg confidently to lay this method before the notice of the Profession, as the most ingenious and simple contrivance yet invented for the object in view, and as one which, I think, will be very generally adopted. It will give me great pleasure to exhibit the apparatus and mode of operating to those who are interested about it; and I may add, that the apparatus itself will be constructed by Mr. Coxeter, of Grafton-street East. I am, Sir, &c. THOMAS H. HARDING.

19, Park-square East, Regent's-park.

ROYAL COLLEGE OF SURGEONS.—THE FELLOWS' DINNER.—THE JOHN HUNTER CLUB.

[To the Editor of the Medical Times.]

SIR,—A leading article in your last number has shown, shortly and happily, the character of the cry raised by one of your contemporaries of the Medical Press, when he loudly and confidently avers, that, under the disguise of the Fellows' Dinner, the acting Committee seek to exert an influence over the coming elections. Before your article appeared, I had, upon inquiry, found this statement of your contemporary to be, as I expected, a mere fiction. But the explanation of the cry was wanting, and for this we have all to thank you. It seems, then, that a personal purpose was to be served,—an election was to be promoted by diverting us from the proper subject of inquiry, namely, the fitness of a candidate. But, putting aside all matter of external evidence, I would ask my brother-Fellows to put to themselves a few plain questions about this important matter, which each may answer for himself. As thus:—

1st. Can the proceedings of the meeting, to be held over white-bait, &c., at Blackwall, at six o'clock p.m. on Thursday, the 3rd of July, have any influence upon the proceedings which are to take place in Lincoln's-inn-fields at three o'clock on that same day,—just three hours previously?

2ndly. Whatever may be the opinions of the members of the Dinner Committee, or any of them, (and I dare say they are as various as the opinions of any six or seven gentlemen usually are upon most subjects, their curious harmony upon the matter of the dinner in any wise notwithstanding,) is it likely that they would if they could, or that they could if they would, convert our dinner to an election purpose,—even had the dinner preceded instead of following the election-meeting at the College? Or, again, are these gentlemen, who are personally responsible to us, their names being printed, published, and possessed by each of us,—are they, one and all, to be held to be deceitful and dishonourable, and are "the gentlemen of the journal" (whose names are not published, though still pretty well known) to be held to be veracious in their statements and pure in their object?

3rdly. But, supposing, for a moment, the members of the Committee to be, as we are virtually asked by "the gentlemen of the journal" in question to believe them, bereft of all honourable feeling, what can possibly be done by this Committee as regards the election? Look to the facts. A circular is issued for a dinner. Acceptances as to the dinner are invited; and we are told where we are to pay our money and where to dine. Nothing of elections there,—not even a hint. The Fellows first meet the Committee at the dinner, the elections being then already decided. Let any one man tampered with by the Committee declare himself, and prove his allegation; but, till then, ought we to yield up our common sense, and trust to the guidance of interested and unscrupulous clamour?

4thly. Are we to be led to give our votes at elections for the Council by outcry, and not by a calm determination made by each voter for himself respecting the fitness of the candidates?

Lastly, a more general question: Are we, upon this and upon other occasions, to inquire and to judge for ourselves; or are we, notwithstanding all that is known to each of us, ever to accept the statements and the judgments formed for us by "the gentlemen of the journal"? *Quousque tandem?*—I am, &c.

A FELLOW OF THE COLLEGE OF SURGEONS.

[To the Editor of the Medical Times.]

SIR,—I send you a copy of a letter which I have addressed to the editor of the *Lancet*, and as I am anxious that its contents should be circulated as extensively as possible among the Fellows of the College of Surgeons before the Annual Meeting of that body on the 3rd of July, I shall be much obliged if you will find a place for it in the next number of the *Medical Times*. I am, &c.,

Sunbury. JOHN S. SODEN.

[To the Editor of the Lancet.]

SIR,—I should not trouble you with a communication, if you had not alluded personally to me in your leader of last week. I shall not perhaps be able to remove your unfavourable impression of one who entertains opinions different from your own, on some points of medical policy; but, in the hope that those who know me will believe what I assert, I have to request, as a matter of justice, the insertion of this letter in your next number.

To your statement that the Committee for managing the Fellows' (of the College of Surgeons) dinner have attempted to revive the John Hunter Club, and endeavoured to influence the election of members of the Council at the ensuing Annual Meeting, I give the most positive, direct, and unequivocal denial. I have heard nothing about the John Hunter Club since its dissolution two years ago; and the merits or demerits of those gentlemen who are likely to be candidates for seats at the Council Board have not been alluded to at any meeting of the Committee.

A public dinner cannot take place without some preliminary arrangements, and these are generally managed by a few individuals who feel interested in the measure. The members of the Committee assisted in the arrangements on former occasions, and, as our worthy Honorary Secretary, Mr. White Cooper, thought their experience would be useful to him, they very gladly offered their services. They were also desirous of showing their esteem and respect for Mr. James, by doing every thing in their power to promote the success of a meeting over which he is to preside.

The Fellows of the College have dined together for the last five years on the day of their Annual Meeting; but these presidial meetings have been social, and not political. They have been considered as a sort of neutral ground, on which professional brethren might meet in a friendly way, and avoid the introduction of any matter likely to occasion dissension. To divest them, indeed, of every appearance of official character, the Presidents have been alternately Metropolitan and Provincial.

It is unnecessary, perhaps, for me to say more. I will, however, declare that, in endeavouring to promote these annual reunions, I have not been influenced, in the slightest degree, by party or political motives. I have given them my feeble support, because I am really anxious for the best interests of my Profession, and believe that they are calculated to be beneficial, by promoting social and friendly intercourse between the Metropolitan and Provincial practitioners, and because they afford an agreeable opportunity for residents in distant provinces to meet, to renew old and form new friendships. I am, Sir, &c.,

Sunbury, June 23, 1851. JOHN S. SODEN.

[We give insertion to Mr. Soden's letter with pleasure. It corroborates, from a source not to be questioned, the statements contained in our Journal of last week, respecting the grim shadow which has thrown our Contemporary into a convulsion. It is, however, really hard that we should be again troubled with the disinterment of a "dead dog," so long buried that he has lost all unsavoury odour, even to his worst enemies. Who could possibly think, save one whose "wish was father to his thought," that the John Hunter Club, with the attendant counter-agitation, were to be revived?—ED. *Medical Times.*]

MEDICAL NEWS.

A *soirée*, or *conversazione*, will be held this evening, the 28th inst., at the Royal College of Physicians, and another at the Royal College of Surgeons on Wednesday, the 2nd of July, on which occasion Professor Paget will deliver a lecture.

NAVAL APPOINTMENTS.—Assistant-Surgeon James D. Cronin (1844), from the Victory, flag-ship at Portsmouth, to the Retribution; Charles Hall Chambers, acting (1851) to the Impregnable, flag-ship at Devonport.

MEDICAL APPOINTMENTS AND VACANCIES.—A medical officer is wanted for the Sibsey District of the Boston Union, salary 45*l.* per annum; together with extra fees for operations, cases of midwifery, and vaccinations. An apothecary is required for the Liverpool Infirmary; salary 100*l.* a year, with board, washing, and lodging; he must be L.S.A., and unmarried. There is a dispenser at the Institution. Mr. H. Lee has been elected the Surgeon, and Mr. J. R. Lane, Assistant-Surgeon, to the Lock Hospital. A medical officer is wanted for the Third District of the Barnet

Union; salary 35*l.* per annum, with the usual extra fees for midwifery and surgical operations. Testimonials to be sent on or before the 2nd of July. A physician and an apothecary are wanted for the Surrey Dispensary: election on the 4th of August.

OBITUARY.—On the 23rd instant, from a fall from his horse, Edward Burley Clayton, Esq., surgeon, second son of James Clayton, Esq., surgeon, of Percy-street, Bedford-square.

SIR BENJAMIN BRODIE will receive the honorary degree of D.C.L. from the University of Oxford, on the 3rd of July.

ST. MARY'S HOSPITAL.—The festival for the opening of this Institution took place at the London Tavern, on the 21st inst., the Earl of Carlisle presiding. In the course of his very eloquent address to the gentlemen present, the President gave a sketch of the rise and progress of the Hospital. There are, at present, about 170 beds ready; when complete, there will be room for 400. There is a debt of about 4,000*l.* on the Institution, and a large annual subscription will be required for its support. He remarked, that there was a great hospital deficiency in London; the hospitals in Paris admitting 1 in every 180, and those of London 1 in every 580; but, the noble Chairman forgot to mention, that the beds and other resources of our hospitals are frequently prostituted for the advantage of those who are prosperous, and even wealthy in life, instead of being used solely for the benefit of the poor, and that thus they are made merely stepping-stones to *practice*. Sir B. Hall stated, that no less a sum than 1,043,000*l.* was subscribed annually in behalf of the Metropolitan charities, independent of 750,000*l.*, being the interest of monies invested for their support. The subscriptions during the evening, on behalf of St. Mary's Hospital, amounted to about 3000*l.*

THE CHOLERA IN LONDON.—The Registrar-General records a case of this disease, as occurring on the 19th instant, at Oakley-street, Lambeth, in the person of a female aged 59, and terminating fatally in eighteen hours. The district Registrar states, that "the deceased, who is from the country, retired to rest perfectly well, and was attacked about three o'clock in the morning. About three weeks before, when in the country, and also on a previous occasion, she suffered severe bowel complaint. The medical attendant considered it an undoubted case of Asiatic cholera. The house is described as cleanly and well drained."

"THE HAPPY HOMES OF ENGLAND."—In Holborn, St. Andrew East sub-district, at 3, Pheasant-court, Gray's-inn-lane, on 16th June, the daughter of a labourer, aged 12 days, died of "convulsions (two days)." Mr. Holmes, the registrar, observes: "I never beheld such misery as in the house where this child died; its filthy condition was unbearable; when I went to register, the father was absent in the country, and the mother was lying on I know not what, on the floor."

ANOTHER EXHIBITION.—In Southampton Mews, Bloomsbury, on the 17th of June, a boy, aged 2 years, died of "congestion, bronchitis, convulsions." The district Registrar says: "This is the fourth death in the same family since the end of March. The first was that of a girl of 17 years from phthisis; the next that of a boy of 4 years from rubeola and phthisis; then a boy of 5 months died of hydrocephalus; and last, the child whose death is now recorded. On inquiry, there has not been found any circumstance of particularly unwholesome character connected with the stable where the family lived, except the want of ventilation. The four children, or three of them, slept with three who are still alive in a room which is entered from the front room, having no fireplace, and only a small window, a mere hole, looking into the loft. The stable has no back windows. Horses are not kept in it."

WHAT IS MANSLAUGHTER?—A death was registered last week of a female, aged 24, from phthisis, in St. Giles'-in-the-fields. Mr. Simpson, the registrar, says: "This woman had an order to be taken into St. Giles' Workhouse. She remained for twenty minutes in the passage, when she requested her friends to carry her home, as she found herself dying; they did so, and she expired immediately."

THE following disgraceful handbill has been freely distributed in Leeds:—"Mr. Richard Irwin, (late of Dublin, Ireland,) Member of the Royal College of Surgeons, London, Licentiate of the Apothecaries' Company, and Accoucheur; also, Member of the Massachusetts Medical Society, United States of America, and practitioner in all branches of his Profession for many years, wishes to inform the inhabitants of Leeds and its vicinity that he resides at 9, Rockingham-street, Woodhouse-lane, where he can be consulted daily, from eight to eleven o'clock in the forenoon, and from two to five and seven to ten o'clock in the evening. Advice given to the poor gratis. Professional calls promptly attended to at all hours. Charges moderate."

ST. LUKE'S HOSPITAL FOR LUNATICS.—This charity celebrated its centenary festival on Wednesday last. The Right Hon. C. S. Lefevre presided. The amount of subscriptions announced was about 2500*l.*, exclusive of donations. In the course of the after-dinner proceedings, Mr. B. Martineau, in returning thanks as one of the Committee whose health had been drank, alluded to a letter which had appeared in the *Times* advising the removal of the hospital out of town. He said, he perfectly agreed that if the charity had money it might be advisable to remove the hospital elsewhere; but it should be borne in mind, that St. Luke's Hospital was not a fairy palace to be dealt with by a Paxton, or a structure easily removed. It would require a sacrifice, at least, of 30,000*l.* or 40,000*l.* to accomplish what was suggested; and he appealed to the company whether they were prepared to make that sacrifice at the expense of some 60 or 70 per cent. of their patients. If there was a surplus fund of charity in the country to erect a lunatic asylum elsewhere, then he would say, let them erect an asylum elsewhere; but St. Luke's Hospital had done good and was doing good, and, with this impression, he saw no reason why they should depart from the course they were now pursuing. This may be all very well, so far as pecuniary considerations are concerned; but we doubt much whether, on psychological principles, all such establishments should not be at the farthest possible remove from thickly populated cities or towns. St. Luke's Hospital is a dismal prison-barred pile of building, and can hardly fail either of inducing mental depression, or of blunting the sensibilities to human suffering in those who constantly view it.—ED.]

DEATHS *in the Metropolis for the week ending Saturday, June 21*, 1851.

CAUSES OF DEATH.	June 21. 0	15	60	All Ages.	Sum of Ten Weeks.
ALL CAUSES	488	310	165	963	9386
SPECIFIED CAUSES	479	309	164	953	9343
1. Zymotic (or Epidemic, Endemic, and Contagious) Diseases ...	168	28	9	205	1937
SPORADIC DISEASES:					
2. Dropsy, Cancer, and other Diseases of uncertain or variable seat ...	1	28	41	85	445
3. Tubercular Diseases.	72	111	6	189	1770
4. Diseases of the Brain, Spinal Marrow, Nerves, and Senses, ...	64	25	20	109	1009
5. Diseases of the Heart and Blood-vessels	4	53	21	98	988
6. Diseases of the Lungs, and of the other Organs of Respiration ...	61	29	31	112	976
7. Diseases of the Stomach, Liver, and other Organs of Digestion...	24	28	17	69	654
8. Diseases of the Kidneys, &c. ...	...	7	5	12	96
9. Childbirth, Diseases of the Uterus	...	9	...	9	86
10. Rheumatism, Diseases of the Bones, Joints, &c. ...	3	4	1	8	66
11. Diseases of the Skin, Cellular Tissue, &c.	1	2	...	3	6
12. Malformations	3	...	...	3	22
13. Premature Birth and Debility ...	30	1	...	31	288
14. Atrophy	21	1	1	23	158
15. Age	...	...	37	37	317
16. Sudden	4	1	3	8	112
17. Violence, Privation, Cold, and Intemperance	23	20	2	52	483
Causes not Specified	4	1	1	5	54

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INDEX.

A.

Abdomen, case of penetrating wound of the, 276
Abdominal cavity, lipoma in the, 100
..... parietes after tapping, 51
Abscess in bone, 150
....., superficial, over the knee joint, 57
Abscesses large, treatment of, 38
Absence of the vagina—imperforation of the uterus, 240
Absorbent inflammation, 499
Absorption of aliments, on the, 239
Abuses in private asylums, 81
Accoucheurs, the honorary district, of St. Mary's Hospital, 621
Acid, carbonic, suffocation by, 128
Aconite, poisoning by, 435
Acton, Wm., Esq., on prostitution in relation to public health, 297
Actonian prize, the, 407
Acute congestion, cases of, 564
..... non-suppurative phthisis, case of. By S. T. Speer, M.D., 510
..... rheumatism, 206, 299
Adams, John, Esq., on the subcutaneous application of the ligature for deep-seated nævi, 178
Additional observations on the use of nitrate of silver, 298
Address, introductory, on medical education, 270
Adult Deaf and Dumb Asylum, 360
Advantages, on the, of an elastic convoluted spiral bandage in varicose veins and ulcers of the legs. By James Startin, Esq., 285
Advice to students, 244
Aldis, C.J.B., M D., case of paralysis of the right and chorea of the left side, by, 233
Aliments, on the absorption of, 239
Alleged Lunatics' Friend Society, the, 15, 19, 102
Almanack, &c., the Physicians', Surgeons', and General Practitioners' Visiting List, Diary, 18
Amaurosis, ptosis and, from cerebral disease, 533
Amenorrhœa, anæmia depending upon, 618
American Medical Association, address before the, 210
Amherstia nobilis, the, 135
Amputation, exfolication of bone after, 78
..... of astragulus and os calcis, 330
..... of both thighs on account of gangrene of the feet and legs after typhus fever, 348
..... of the foot at the ankle joint, 639
..... of the right thigh, 280
Amputations, description of an improved circular steel tourniquet for, 478
Anæmia, death from, 480
....., depending upon amenorrhœa, 618
Anæsthetic, chloroform as an, 627
Analysis, numerical, of the medical profession, 96
....., qualitative, 74
Anasarca, treatment of, or general dropsy by puncturing the legs, 384
Anastomosis, aneurism by, 143
....., on aneurism by, 445
Anatomical Museum, Dr. Kahn's, 496
Anatomist's Vade Mecum, the, 18
Anatomy of the human body, 298
..... and physiology, elementary, 544
....., microscopic, of the human body, 44
Ancell, Henry, Esq., Lectures on Blood Diseases, 60
Lecture XII.—The pathological anatomy of the serous membranes in tuberculosis concluded—The pathological anatomy of the peritoneum—Chronic and acute inflammation—Effusions—Adhesions—Ulceration—The deposit of tubercle—Tubercle in false membranes—Pathology of the peritoneum in tuberculous children—Comparative frequency of the different varieties of tubercle in the peritoneum of children, 60
Anchylosis of the jaws, 294
Anencephalous monstrosity, 21
Aneurism by anastomosis, 143, 445
....., femoral, 148
..... of the left ventricle, 105
..... aorta, 517
....., popliteal, case of, treated by compression, 684
....., treatment of, by compression, 697
Aneurismal dilatation of the posterior tibial vein, communicating indirectly with the popliteal artery, 630
Animal chemistry, lectures on, by Dr. B. Jones, 307, 363, 417, 471, 525, 579, 633
..... magnetism, 443
..... and vegetable physiology, 98
Ankle joint, amputation of the foot at the, 639
....., compound comminuted fracture of the right thigh, extending into the, 482
....., unusual accident to the, 275
Annan, Robert, Esq., on fracture of tibia of right leg, phlebitis in the left limb, treated with calomel and opium, 317
Ano, fistula in, 56
Anomalous case of pregnancy, absence of fœtus, by Thomas Underhill, Esq., 533
Another Exhibition, 704
Antrum, spontaneous collapse of the walls of the, 275
Anus, imperforate, 163
Aorta, aneurism of the, 517
....., disease of the semilunar valves of the, 218
Apology for the microscope, by R. D. Lyons, Esq , M.B., 624
Apoplexy, on the threatenings of, and paralysis, by Marshall Hall, M.D., 459
Apothecaries' Company v. Fawthrop, 438
....., and the Irish medical charities, 516
..... Hall, recognition of the Liverpool Royal College of Chemistry by the, 565
....., 442, 577
Apparatus for carinated sternum, 357
..... producing artificial respiration, 65
..... resuscitation, 463
..... hare lip, 48, 104
Apparent death, 432
Application of the heat of electricity in practical surgery, 432
Appointment of an unqualified practitioner by the Ordnance Department of Cork, 41
....., the, at Cork, 163
Appointments, medical, and vacancies, 360, 415, 442, 496, 522, 575, 632, 658, 686, 703
....., naval, 24, 52, 79, 191, 248, 304, 331, 360, 387, 442, 467, 496, 522, 632, 686, 703
....., military, 52, 79, 106, 162, 191, 248, 276, 304, 331, 359, 415, 496, 549, 575, 633, 686
Army, French, mortality of the, 241
..... medical department, 162
..... men in the, 371
..... officers, 52
Arnott's, Dr., truss, 81
Arsenic Bill, the, 550
....., new Act to regulate the sale of, 652
....., medicinal action of, 119
....., poisoning by, 413
....., regulation Bill, sale of, 331
....., sale of, in Germany, 389
Arteries, disease of the, 357
Arthritis, chronic rheumatic, 105
Articles, Editorial, 14, 39, 40, 41, 71, 72, 73, 95, 96, 98, 121, 152, 181, 207, 235, 263, 295, 319, 349, 375, 377, 408, 427, 456, 483, 511, 535, 565, 588, 620, 653, 676, 693
Articular rheumatism, 99
Artificial teeth, instructions in the use and management of, 210
Ascarides treated by kousso, 356
Ascites dependent on obstruction of the vena portæ by coagula, 36
Ashley, Lord, letter to, on public hygiene, by Dr. Guggenbuhl, 696
Ashton Board of Guardians, 576
Assimilative force, the, in relation to hypertrophy and atrophy, 133
Assurance, Life, 192
....., a new epoch in, 272
Astragalus, amputation of, and os calcis, 330
....., dislocation of the, 37
....., excision of the, 414
..... ., fracture of the, 432
Asylum, a new private lunatic, 25
....., Bristol Lunatic, 81
....., destruction of a lunatic, by fire, 25
..... for Idiots, 332, 360
....., new lunatic, registration-office, 537
....., private abuses in, 81
Atkinson, H.G., F.G.S., on the laws of man's nature and development, 238

B.

Babington, Dr., 79
Balfour, Geo. W., M.D., on spontaneous dislocation of the lens, 291
....., Hugh, M.D., on the dumb-bell crystals of oxalate of lime, 92
Barclay, Dr., hospital reports, 480
Bark, Cascarilla, 135
Bark, Peruvian, 550
Bartholomew's Hospital, the London practice of medicine and surgery at, 10, 36, 150, 534, 563, 587, 675
Bathing, public, 696
Beale, L., Esq., hospital reports, 179, 372, 618
Beck, T. Snow, M.D., on the pathology of the uterus, its anatomy and physiology, 7, 89, 175, 455, 592, 651
Beetle wafers, poisoning by, 248
Belfast General Hospital, the provincial practice of medicine and surgery at, 564, 588
Belgium, health of, 80
Benevolent and provident societies, by Wm. Newnham, Esq., 260
Bequests, 25, 52, 80, 106, 163, 191, 276, 332, 522, 549
Berkshire Hospital, Royal, 276
Berlin, sanitary state of, 80
Bermondsey, sanitary state of, 212
Bibliographical notices, reviews and, 16, 44, 74, 98, 126, 154, 208, 238, 269, 297, 322, 377, 409, 430, 459, 488, 592, 623, 679, 696
Bird, Golding, M.D., on urinary deposits, 542
Birkenhead County Court, 108
Birmingham, the Queen's College, 653
Birth, on the compression of the fœtal head during, 327
Black fever near Oxford, 134
Black medical officers, 107
Blackwell's, Mr., razor-guard, 26
Bladder, congenital malformation of the, 303
....., paralysis of the, cured by electricity, 100
Blair, Daniel, M.D., on yellow fever of British Guiana, 322
Blood diseases, lectures on, by Henry Ancell, Esq., 50
..... Harvey demonstrating his theory of the, to Charles I., 389
.....-holding cells, the splenic, 324
....., on the state of the, and the blood vessels, 154
....., pathology of the, 129
Bloomsbury Dispensary, 80
Board of Health, 191, 442
Body, human, microscopic anatomy of, 44
Bone, abscess in, 150
....., exfoliation of, after amputation, 78
....., temporal, caries of the petrous portion of the, 275
Botany in Nepaul, 467
....., principles of scientific, 16
Bougon, Dr., death of, 467
Bourjeaurd's spinal supporter, 659
Brain, ramollissement of the, 603
....., venereal affections of the, 625
....., wound of the, 316
Branding with caustic, 80, 107
Brazil, yellow fever in, 423, 448, 467, 489, 516, 545
Bristol, 333
..... Hospital, the provincial practice of medicine and surgery at, 482
..... Lunatic Asylum, 81
..... Medical School, 521
Britain, Great, Census of, for 1851, 694
British Association, 311
..... Guiana, yellow fever in, 322
..... Medical Fund, 388
Brodhurst, B.E., on the crystalline lens and cataract, 74
Brodie, Sir B., 704
Bronchocele, hydatid, 75
Broncho-pleuro pneumonia, 69
Brougham, Stephen, Esq., on kousso in tænia, 564
Brown, John, M.D., suicide of, 79
Browne, P. A., LL.D., on the classification of mankind, 351, 605
Bryson, Alexander, M.D., on the infectious origin and propagation of cholera, 506, 648, 666
Buccal mucous membrane, microscopic examination of the exudations in the, 75
Budd, George, M.D., F.R.S., clinical lectures on medicine, by, 29, 83, 251, 335
Bulley, F. A., Esq., description of an improved circular steel tourniquet for amputations, 478
Burgess, S. H., M.D., on diseases of the human hair, 431
Burnett, C. M., M.D., on the philosophy of spirits in relation to matter, 208
Burns, operations for the cure of deformities arising from the contraction of cicatrices of, 315

Burrows, George, M.D., clinical lecture on surgery, by, 609
Bury Board of Guardians, 107
Bushnan, J. Stevenson, M.D., on homœopathy, 453

C.

Cadge, Wm., Esq., on the surgical anatomy of the principal regions of the human body, 298
Cadmium, sulphate of, 432
Cæsarian section, 333
Calculus removed by dilatation of the urethra, 242
California, 469
....., quicksilver mines in, 577
Cambridge, University of, 79, 106, 134, 520, 658
Campbell, A.. Esq., on the topography and diseases of Upper Scinde, 147
Cancer of the prostate gland, 50
Canton, Alfred, Esq., on the teeth and their preservation, 679
Cape de Verde Islands, 163
Carbonic acid, suffocation by, 128
....., the exhalation of, 324
Carcinoma ventriculi, case of probable, 92
Caries of the petrous portion of the temporal bone, 275
Carinated sternum, apparatus for, 357
Carter, Robert Brudenell, Esq., hospital reports, 206
Cascarilla bark, 135
Case, doubtful, 326
.....of probable carcinoma ventriculi, 92
..... Ann Merritt, 354
..... chronic gout, with depositions of chalk stones, in various parts of the body, 179
..... in which Cæsarian section was performed, 214
Cases of rupture of the liver and spleen 131
.....in which there was unusual difficulty in the diagnosis of pleuritic effusions, 629
..... surgery, by Henry Smith, Esq., 531
Catalepsy in relation to other disorders of the nervous system, 546
Cataract, crystalline lens and, 74
Cattle, epidemic among, 627
Causes of gonorrhœa, 217
..... phthisis, 218
Caustic, branding with, 80, 107
Cavalry, North Somerset regiment of yeomanry, 25
Cayenne, report of the yellow fever of, 686
Cazenave, M., on diseases of the human hair, 431
Census of 1851, 134
..... of Great Britain for 1851, 694
....., the Irish, 408
Cerebral disease, ptosis and amaurosis from, 533
Certificates in lunacy, 576
Cervix uteri, ulcer of the os and, 385
....., diagnosis of inflammatory diseases of the, 437
Chairs of military surgery, 538
Chaldecott, J. A., Esq., hospital reports, 94, 204
Chambers, Dr., 25
Charities Bill, the Irish Medical, 81, 121, 181, 263, 319, 350, 382, 427
....., London medical, 81
....., medical, 332, 350
Charter, amended, of the College of Surgeons, 349, 380
....., the College, 359
Chemical analysis, surgeons and, 468
..... pathology, cases illustrative of various points in, 618
..... society, 441
Chemistry of the poisons, on the, by H. Letheby, M.B., 198, 368
....., animal, lectures on, 307, 363, 417, 471, 525, 579, 633
....., vacant professorship of, 106
....., Liverpool college of, 305
Chesham, Sarah, conviction of, 296
Chest, hospital for diseases of the, 686
....., City of London Hospital for Diseases of the, 605
..... protector, respiratory organ and, 25
Children, hospital for sick, 377
....., royal infirmary for, 331
Chloride of sodium in ulceration of the cornea, 99
Chloroform, on, 299, 235, 325
....., Lord Campbell's clause, 264
..... to criminals, 443
....., on the use of, 275
....., poisonous nature of Scotch, 237, 297
....., preparation of atrophine by means of, 571
....., death from, 577
..... in gonorrhœa, 433
..... as an anæsthetic, 627
....., on the benefit derived from the inhalation of, in a case of pulmonary consumption, 493
....., use of, in removing foreign bodies from the eye, 66
Cholera, the, 80, 305, 351, 469, 605
....., prevention of, 40
....., on the infectious origin and propagation of, 506, 648, 666
..... in Jamaica, 52, 107, 659
..... London, 704
..... Plymouth, 159
Cholera epidemic, 256, 340, 399
..... at Noss, 271
..... in the West Indies, 26, 297
Chordæ tendineæ, rupture of the, 407
Chorea, cases of, with examinations of the urine, 372
Chronic rheumatic arthritis, 105
Chylo-serous urine, case of, 327
Circular, the Admiralty, 96
Cirrhosis, 251
City of London Hospital for Diseases of the Chest, 605
..... for Consumption, 235
Civiale, M., and lithotrity, 101
Civic liberality, 332
Clarke, Sir Charles Mansfield, 360
....., dinner to, 604
....., Mr., testimonial to, 604
....., W. Michell, Esq., hospital reports, 432
Classical examination, 276
Clinical medicine, 39, 49
..... Lecture on medicine, by George Budd, M D., F.R.S., 29, 83, 251, 335
..... surgery, by Edward Stanley, F.R.S., 3
..... E. A. Lloyd, Esq., 111, 179
..... Bransby B. B. Cooper, F.R.S., 55, 168, 553
..... Wm. Fergusson, Esq., F.R.S., 143, 228, 445, 639
..... W. Lawrence, F.R.S., 27, 392
..... George Burrows, M.D., 609
..... Samuel Solly, Esq., F.R.S., 499
....., delivered at the York School of Medicine, on a new epidemic exanthema, by Thomas Laycock, M.D., 253
..... ununited fracture, by John Adams, Esq., 395
Club, the John Hunter, 676, 703
Coagula, ascites dependent on obstruction of the vena portæ, 36
Cod-liver oil, 573
Collard, M. Royer, death of, 157
College of Surgeons, 51, 79, 106, 220, 248, 359, 415, 441, 467, 522, 549, 575, 603
..... the Council Election at the, 693, 703
..... lectures, the, 276, 467
..... studentships, 467
..... theatre, the, 296
College conversazione, 658
..... charter, the 359
Collegiate elections, 603
Coloured medical students in the United States, 163
Commentaries on convulsive diseases, by Charles Bland Radcliffe, M.B., 289, 370, 515, 560, 646
Commission signed by the Lord Lieut. of the county palatine of Chester, 331
Commissioners in Lunacy, their last report, and their proper duties, 535
Communicability of the gonorrhœal virus, 462
Communications, original, 4, 30, 62, 86, 115, 145, 173, 201, 230, 256, 285, 312, 340, 399, 420, 448, 478, 504, 531, 557, 592, 612, 646, 666, 689
Complete absence of the uterus, 432
Compound comminuted fracture of the right thigh extending into the knee-joint, 482
..... fracture of the skull, 67
Compression, case of popliteal aneurism, treated by, 684
..... of the fœtal head during birth, 327
..... of the skull at birth, on the, 303
..... treatment of aneurism by, 697
Compulsory medicine, 299
Concours, 699
....., election of M. Nelaton by, 572
Concussion, fracture caused by, 534
Condition of the internal ear in typhous patients, 431
Confluent small pox, case of, after a third vaccination, 273
Congenital malformation of the genito-urinary organs, case of, by John Wiblin, Esq., 479
..... contractions of the fingers, and a new operation for their relief, and for the cure of deformities arising from the contraction of cicatrices of burns, by J. Torry Hester, Esq , 315
..... malformation of the bladder, 303
Congestion, acute, cases of, 564
Consumption, on the physical diagnosis of, 431
....., Dispensary for, 107
....., City of London Hospital for, 235
....., diagnosis and treatment of pulmonary, 5
....., pulmonary, on the benefit of the inhalation of chloroform in, 493
..... the symptoms of, 466
Contemporary Criticism, 20, 159, 572
Contractions of the fingers, congenital, 315
Contributions to the pathology of the nervous system, by Nicholas Parker, M.B., M.D., 91
Convalescent Institution, Metropolitan, 242, 619
Convalescent Hospital, the, 277
Convention of Poor-law medical officers, 19, 519, 566
Conviction of Sarah Chesham, 296
Convulsive affections, on the relation of sleep to, 435
..... cough, 50
..... diseases, 289, 370, 560, 646
....., commentaries on Dr. Radcliffe's, 434
Cooper, Samuel, Esq., the late, 331
....., Bransby B., clinical lectures on surgery, 55, 168, 553
Coote, Holmes, Esq., F.R.C.S., hospital reports, 36, 150, 534, 563, 587
Copeman, Edward, M.D., cases in midwifery, 625
Copland, James, M.D., F.R S., on the causes, nature, and treatment of palsy and apoplexy, 459
Copper coins, swallowing, 656
Cork appointment, the, 163
Cornish, the Rev. Mr., 181
Corpuscles, the formation of mucous, 324
Correspondence, foreign and provincial, 100, 102, 211, 279, 410, 433, 572, 627, 699
....., general, 18, 47, 48, 49, 76, 77, 102, 103, 104, 156, 186, 212, 241, 270, 299, 325, 354, 380, 411, 433, 489, 515, 544, 573, 598, 627, 655, 681, 699
Correspondents, notices to, 26, 54, 82, 100, 110, 136, 165, 194, 221, 248, 278, 306, 334, 362, 390, 416, 444, 470, 497, 524, 552, 578, 605, 633, 660, 688
Cornea, deep-seated inflammation of the, 241
....., chloride of sodium, in ulceration of the, 99
Coroner, duties of a, 243, 380
Coronership, the, 576
Corroding ulcer of the uterus, 246
Coste, M., on gestation in the human subject, 76
Cotton, R. Payne, M.D., on the physical diagnosis of consumption, 431
Cough, convulsive, 50
Council, Court of Common, 467
..... election, the, at the College of Surgeons, 693
County Court, Birkenhead, 186
Court of Common Council, 467
Courts, Coroners, 95
Cranium, case of necrosis of the bones of the, 383
Crewkerne and Yeovil Medical Association, 80
Crime, a new, 361
Criminals, chloroform to, 443
Criticism, contemporary, 20, 159, 572
Cross-breeding, on a remarkable effect of, 271
Crosse, J. Greene, M.D., cases in midwifery, by, 625
Crystalline lens and cataract, of the, 74
Curare poison, the, 571,
Curling, T. B., F.R.S., on diseases of the rectum, 698
Cyst, vascular, in the neck, connected with the thyroid body; exposure of the cavity by free incision; cure, 28
....., hydatid, in the pleura, 10
Cystic tumour over the base and angle of the inferior maxillary bone, 27

D.

D'Allex, S. Thomas, M.D., on the infallibility of philosophical therapeutics, 33
Daniell, J. B., M.D., F.R.C.P., introductory lecture, 84
Dartnell, G. R., Esq., on femoral aneurism, 148
Davies, Dr. Henry, 496
Davy, John, M.D., F.R.S., on yellow fever in British Guiana, 322
Deaf and Dumb Asylum, 360
Death from anæmia, 480
....., apparent, 432
..... supposed to have been caused by the neglect of Poor-law officials, 278
..... from chloroform, 577
..... of M. Royer Collard, 157
..... Dr. Hy. Marshall, 576
..... Sake Deen Mohammed, 278
..... Mr. Leach, 248
..... Mr. Link, 79
..... Dr. Bougon, 467
..... R. Thorpe, Esq., 184
..... the Marquis of Northampton, 107
..... M. Leuret, 211
..... Dr. Mackness, 192
..... M. Baudelocque, 699
Deaths in public institutions, 106, 134, 162
Decease of the Institute, 377
Deep-seated inflammation of the cornea, 241
Defective state of the laws of lunacy—declaration of Lord Ashley, 567
Degrees, Irish medical, 517
Delirium tremens, 413
....., cases of, 588
Delivery, case of scarlatinoid rash occurring after, 64
Dentists, the gold used by, 333
Destruction of a lunatic asylum by fire, 25
Development of the testicle, 411
Diagnosis of inflammatory diseases of the cervix uteri, 437

Digitized by Google

Diagnosis, errors in, 75
..... and treatment of pulmonary consumption. By John Hutchinson, M.D., 5
Diarrhœa as a symptom of menstruation, 272
..... hitherto unnoticed symptom of menstruation, 247
Diary, Almanack, &c., the Physicians', Surgeons', and General Practitioners' Visiting List, 18
Dieffenbach's operation for ununited fracture, 300
Difficulties of medical men, 128
Diffused femoral hernia, 348
..... encephaloid disease in the fore-arm, 3
Dilatation of the urethra, calculus removed by, 242
Dinner to Sir C. Mansfield Clarke, 604
Diplomas, Scotch, 492
Discipline, prison, 357, 411
Discovery, interesting, 25
Disease of the arteries, dry gangrene, 357
....., encephaloid, of the peritoneum, 132
..... of the semilunar valves of the aorta, 218
....., encephaloid, case of, 478
....., diffused encephaloid, in the forearm, 3
Diseases of the human hair, 431
..... Ear, Royal Dispensary for, 496
..... rectum, 698
....., new and successful treatment for febrile and other, 17
....., epidemic, 25
....., convulsive, 289
Disgraceful handbill, 704
Dislocated femur, reduction of, 20
Dislocation of the lens, 291
Dismissal of a medical officer, 277
Dispensary, Liverpool, 52, 81, 191
Dispensary for the Eyes, 26
....., North Pancras Provident, 220, 464
..... the Oxford Medical, 334
..... Royal, for Diseases of the Ear, 496
....., the Western General, 277
....., Exeter, 191
..... for Consumption, 167
Dispensaries, self-supporting, 77, 103, 106, 189, 243, 270, 301, 326
....., Provident, and Mr. Hawker, 574
Dispensing medicines, recklessness in, 107
Displacement of the ovary. By Edward Rigby, M.D., 115, 504
Distinction, honorary, 220
Distortions, treatment of, 230
Distressed medical men, 15, 244
Distribution of prizes, 549
Doctress, a fairy, 389
Doubtful case, 326
Douglas, Joseph, Esq., on retroversio uteri, 291
Drew, C., Esq., case of excessive quantity of liquor amnii, 65
Dropsy, mammillated condition of the legs in certain cases of, 330
Druggists, homœopathic, 573
Druitt, Robert, the Surgeon's Vade Mecum, 18
Dudgeon, R. E., M.D., on the homœopaths, 49
Dumb-bell crystals of oxalate of lime, on, 92
Duration of human pregnancy, by Charles Waller, M.D., 48
Duties of a coroner, 243, 380
Dyce Sombre, Mr., 550

E.

Ear, condition of the internal, in typhous patients, 431
....., practical observations on diseases of the, 344, 404, 505, 612
..... Royal Dispensary for Diseases of the, 496
Earth, rotation of the, 550
Edinburgh, Homœopathy in, 621
....., mesmerism in, 129
..... Monthly Journal and its conductors, 514.
..... Royal Infirmary, 52
..... Society of, 163
Editorial articles, 14, 39, 40, 41, 71, 72, 73, 95, 96, 98, 121, 152, 181, 207, 235, 263, 295, 319, 349, 375, 377, 408, 427, 456, 483, 511, 535, 565, 588, 620, 653, 676, 693
Education, medical, 676
Effects of the stings of spiders, 432
Efficacy of the tonic and sedative plan of treatment, on the, in cases of fever and disturbed nervous functions after delivery, by T. W. Garlike, Esq., 673
Effusion, 132
Election of medical officers to St. Mary's Hospital, conclusion of the, 591
..... at the College of Surgeons, the Council, 693
Electric moxa, an indolent sore cured by the, 553
Electricity, 52
....., application of the heat of, in practical surgery, 492
....., paralysis of the bladder cured by, 100
Electro-biologists, 468, 682
Elementary anatomy and physiology, 544
Emigrant vessels, 442
Encephaloid disease of the peritoneum, 132
..... case of, by J. Vaughan Hughes, M.D., 478
..... in the fore-arm, diffused, 3
Encysted tumour of the neck on the left side of the larynx, 28
..... tumours of the head, 235
Endocardium, rupture of the, of both auricles of the heart, 51
England, Kölliker's letters from, 540, 567, 627
....., the happy homes of, 191, 704
Enlargement and induration of the right testicle, 393
Epidemic among cattle, 627
..... cholera, 256, 340, 399
..... diseases, 25
..... ophthalmia, 497
Epidemiological Society, 54, 191, 276, 415, 522, 549, 632, 659
Epoch, a new, in life assurance, 272
Errors in diagnosis, 75
Erysipelas in an infant, 21
....., lacerated wound of the scalp followed by, 204
Escolar, D. S., notes on the natural and medical history of the leech, 377
Essex justices, the, 467
Estimates, the navy, 294
Ether, hydrochloric, 432
Etiology of phthisis, on the, 420, 585, 641
Examination at the College of Surgeons, 332
....., classical, 276
....., microscopic, of a horn, 102
Exanthemata, on the relation of, 62, 188, 213, 302
Excision of the astragalus and os calcis, 414
..... of the head of the femur, by Haynes Walton, Esq., 76
..... of the pelvic extremity of the femur, some observations on, 689
Exeter Dispensary, 191
Exfoliation of bone after amputation, 78
Exhalation of carbonic acid, the, 324
Exhausting diseases, practical remarks on some, 624
Exhibition, Great, small contribution to the, 298
....., the Great, 485, 512, 538, 591, 622, 654, 677, 695
....., another, 704
Exostosis, large, 51
....., orbital, 494
Expenses incurred in opposing medical reform, 26
Explanatory observations on the more speedy collection and adjustment of urinary sediments, by Robert Venables, A.M., M.D., 86, 173
Extensive latent disease, 242
Extirpation of neuroma without injury of the nerve, 572
Extraordinary scene at the Royal Medical and Chirurgical Society, 248
Extreme of quackery, 135
Eye Infirmary, Plymouth, 163
....., use of chloroform in removing foreign bodies from the, 66
Eyes, dispensary for the, 26
Eyre, Sir James, M.D., on some exhausting diseases, 624

F.

Faculty of Medicine, Paris, 699
Fairy doctress, a, 389
Fallacies in medicine and homœopathy, 518
Falloon, E. L., Esq., case of scarlatinoid rash occurring after delivery, 64
False anchylosis of the jaws, 294
Fatal inversion of the uterus, 602
Fatty degeneration of the placenta, and its influence as a cause of abortion, death of the fœtus, hæmorrhage, and premature labour, 600
Fawtbrop, the Apothecaries' Company against, 468
Febricula, 30, 67, 116, 312
Febrifuge, a new, 700
Febrile and other diseases, new and successful treatment for, 17
Fee-bill of the San Francisco Medical Society, 81
Fees in Sydney, 107
....., new mode of taking, 443
..... of medical officers under the Nuisances Removal Bill, 53
..... to medical officers, 191
Fellowship of Royal College of Surgeons, 276, 332
Femoral aneurism, compression in, cure in twenty-four hours, by G. R. Dartnell, Esq., 148
..... hernia, sac opened, secondary hæmorrhage, 318
Femoral hernia, diffused, 348
Femur, case of malignant disease of the lower third of the, 179
....., excision of the head of the, 76
..... of the pelvic extremity of the, 689
....., fracture of the, 602
....., reduction of dislocated, 20
Fergusson, Wm., Esq., F.R.S., clinical lecture on surgery, 143, 228, 445, 639
Fever in Rio Janeiro, 659
....., puerperal, 402
....., relapsing, 30, 67, 116, 312
....., the black, near Oxford, 134
....., typhoid, 30, 67, 116, 158, 312, 355
....., typhus, 30, 67, 116, 312
....., yellow, 277, 354
....., in Brazil, 423, 448, 467, 489, 516, 545
Fever, yellow, in Cayenne, 666
Fibres, striped muscular, a new formation in tumours, 390
....., the nerve, 324
Fibrinous disease of the placenta, 602
Fibro-cellular tumour, case in which a, was removed from the hand, 630
Fibrous tumour of the uterus, 216
..... in conjunction with pregnancy, 130
Fingers, congenital contractions of the, 315
Fire, destruction of a lunatic asylum by, 25
....., necrosis of the patella, from prolonged exposure to the heat of, 36
Fistula in ano, new method of operating for the cure of, 56, 333
..... perineo, stricture of the urethra, and, 168, 259
....., vesico-vaginal, 699
Flaxman Gallery, the, at University College, 413
Fleming, Alexander, M.D., on medical education, 270
Fœtal head, on the compression of the, during birth, 327
Fœtus, absence of the, 533, 628
....., death of the, 600
....., tumour of the rectum, containing portions of a, 259
Foot, amputation of the, at the ankle joint, 639
FOREIGN CORRESPONDENCE:— 100, 211, 379, 410, 433, 572, 627, 699
..... journals, selections from, 99, 126, 239, 324, 431, 571, 625, 679
Fore-arm, diffused encephaloid disease in the, 3
Formation of mucous corpuscles, the, 324
Fothergillian gold medal, 191
Foundlings, 333
Fracture and distortion of the pelvis, case of, 384
..... caused by concussion, by Henry Peacock, M.D., 534
....., compound comminuted, of the right thigh, extending into the ankle joint, 482
..... of the lower third of the left leg, dislocation of the astragalus forwards and outwards—division of the tendons, subsequent removal of the astragalus, 37
..... outer condyle of the humerus, 70
..... skull, 67
..... femur, 602
..... astragalus, section of the tendo-achillis, 432
..... tibia of right leg—phlebitis in the left limb, treated with calomel and opium, by Robert Annan, Esq., 317
....., transverse, of the humerus, 94
....., ununited, 52, 220, 294, 395
....., ununited, Dieffenbach's operation for, 300
France, 100, 157, 211, 299, 379, 433, 572, 627, 699
French weights and measures, 247
Freund, Dr. J. C. H., a small contribution to the Great Exhibition, 296
Friend Society, the Alleged Lunatics', 15, 19, 102
Functional diseases of the uterus, 385
..... paralysis, 21
Fund, British Medical, 388
Fungus hæmatodes, 281
..... of the left testicle, extirpation of the gland, 391

G.

Galloway, Robert, on qualitative analysis, 74
Galvanic poultice, the, 411
Galvano-electric cataplasm, 657
Ganglion treated by the lanceolate director, by John Maund, M.D., 35
Gangrene, dry, 357
..... of the feet and legs, 348
Garlike, T. W., Esq., on the efficacy of the tonic and sedative plan of treatment, in cases of fever and disturbed nervous functions after delivery, 673
....., remarks on asthenic puerperal fever, 402
GENERAL CORRESPONDENCE:— 18, 47, 76, 102, 158, 188, 212, 241, 270, 299, 325, 354, 380, 411, 438, 489, 515, 544, 573, 596, 627, 655, 681, 699
Genito-urinary organs, case of congenital malformation of the, 479
German Hospital, 277
Germany, sale of arsenic in, 389
Gestation in the human subject, 76
Gibraltar, 523
Gland, prostate, tubercle in the, 160
....., cancer of the, 50
Glasgow, 107
Globulamania, 135
Gold used by dentists, 333
Gonorrhœa, causes of, 217
....., on, by J. L. Milton, Esq., 66
....., on scalding in, by J. L. Milton, Esq., 201
....., chloroform in, 433
....., incipient, 301
Gonorrhœal virus, on the communicability of, 462
Gout chronic, 179
Graduates' Committee, the, 517

Digitized by Google

Graham, Professor, health of, 25
Grainger, Mr., report to the General Board of Health, 126
Grant, Dr., proposed testimonial to, 408
..... Medical College, Bombay, 632
Gratifying testimonial, 108
Grave-diggers, the London, 80
Great Britain, Census of, for 1851, 694
Great Exhibition, 485, 512, 538, 591, 622, 654, 677, 695
..... will case, the, 468
Gregory, Dr. George, on the relation which the exanthemata bear to each other, 62, 188, 213
....., in reply to Dr. Knox, 241
Gross quackery, 305
Guard, Mr. Blackwell's razor, 26
Guardians, Marylebone Board of, 135, 333, 361, 496
....., the Bury Board of, 108
Guggenbuhl, Dr., Letter to Lord Ashley, by, 696
Guillotin, Joseph, and the guillotine, 100
Gull, Dr., 360
Gum, elastic catheter, incipient gonorrhœa cured by the, 301
Guy, Wm. A., M.B., lectures on public health, 195, 282, 337, 397, 474, 636
Lecture I.—Introductory remarks, 139
Lecture II.—Diminished mortality coincident with improvements in the diet, clothing, and habits of the people—Famines and pestilences of the middle ages—The mortality from the cholera small, when compared with that from the black death, sweating sickness, and plague—Progressive improvements in the diet, &c., of the people—Introduction of gardening; importation of the potato, of tea and coffee, and of cheap fruits—Storing of hay for winter use—Supply of water to large towns—Improvements in streets and houses—Increased value of human life during the 18th and 19th centuries proved by the London bills of mortality and by the relative age at death of life annuitants in the 17th and 18th centuries—Improved expectation of life among kings and the English aristocracy—Beneficial effects of the fire of London—Moral progress coincident with physical improvement—Existing evils, physical, economical, and social, plan of the course, 195
Lecture III.—Scurvy—The disease not peculiar to seamen—Formerly prevalent in barracks, prisons, besieged cities, convents, and monasteries—Nature of the disease; its symptoms; its causes—Endemic among the northern nations, in Iceland, Greenland, Cronstadt, and the Northern parts of Russia—Epidemic during the sieges of Thorn, Breda, Rochelle, and Stetin, also in Brabant in 1556, and in Holland in 1562; —Has broken out more than once in the Penitentiary at Milbank, and was prevalent in the years 1846 and 1847—The scurvy among the gold miners of California—Scurvy due to a defective diet—Dr. Baly's experience at the Penitentiary —The potato an anti-scorbutic—Errors of diet in young children—Treatment of infantile fever —The subject of scurvy resumed; its ravages in the navy during the 18th century—Sanitary state of our ships—The scurvy on board the Centurion—Experience of Sir Richard Hawkins —Mortality of seamen in 1780—Miscarriage of the expeditions of Sir Francis Wheeler and Admiral Hosier in consequence of disease—Testimony of Sir Gilbert Blane as to the seven years' war and the American war—Contrast offered by the voyages of Cook and Parry—Comparative mortality of sailors in the 18th and 19th centuries—The improvement in the health of the navy a proof of the reality and importance of the science of hygiene—scurvy in the army, in the garrison of Oswego, and at Quebec—Improvement in the health of the army—Beneficial effects of a change, in hot climates, from the plains to the hills, as recommended in Jamaica by Dr. Robert Jackson, 282
Lecture IV.—Vaccination—Awful ravages of the small-pox—Small-pox and the plague compared —Calculations of Sir Gilbert Blane and Dr. Black—The small-pox among the American Indians and Ceylonese—Inoculation and vaccination—Introduction of inoculation into England—Introduction of vaccination—Mortality from small-pox before inoculation compared with the mortality as modified by inoculation and vaccination—Inoculation and vaccination compared—Extirpating power of vaccination—Testimony of Sir Gilbert Blane—Vaccination in the army—Jenner rewarded by Parliament—Establishment of the National Vaccine Institution —Mortality from small-pox in England and Wales in 1838, 1839, and 1840, compared with the mortality in France and Austria—Blindness caused by small-pox—Number of blind persons in England—The Vaccination Extension Act— —Its results—Mortality in the Metropolis since the passing of the Act, 337
Lecture V.—Vaccination continued—Extent to which vaccination is practised among children attending school—Mr. Marshall's inquiries—Jews more careful in this matter than Christians —Opportunities of extending vaccination enjoyed by the clergy—Character of Jenner—His feelings in reference to his discovery—Jenner an example that the pursuits of science are not unfavourable to religion—Howard and the gaol fever—Sketch of the life of Howard; his captivity; his exertions on behalf of his fellow-prisoners; his sanitary reforms at Cardington; their consequences—Contemporaneous labours of Oberlin in the Ban de la Roche—Howard's prison labours; his rare industry—Exemplary promptitude of the Legislature—Acts of 1774 for improving the health of prisoners, and correcting the abuses of prisons, 397
Lecture VI.—State of prisons in Howard's time—Scanty supply of the first necessaries of life, air and water—Operation of the Window-tax—Damp and offensive state of the prisons—Want of bedding to lie on—Unwholesome food—Overcrowding—Facilities for intemperance—Immorality—Use of the torture—Many prisons the property of dignitaries of the Church and men of rank—Account of certain prisons and Bridewells—The present state of our inhabited cellars, low lodging-houses, union workhouses, and cottages of the poor in rural districts, very similar to that of the prisons and Bridewells in 1774—Prevalence of the gaol fever and small-pox in the prisons—Frightful mortality from gaol fever—Black assizes at Oxford—Bills of mortality — Parish infection — Spread of the gaol fever among the surrounding population, and among soldiers and sailors—Testimony of Dr. Lind—Contrasts of the present and past state of prisons—Analysis of the Act for preserving the health of prisoners and preventing the gaol distemper — Provisions of the Act often infringed—Abatement of the gaol fever—Character of John Howard—Remarks on the discoveries of Howard, Cook, and Jenner, 474
Lecture VII. — Contagious fevers — The plague, black death, sweating sickness, camp, gaol, and ship fever — Contagious fever, the disease of crowds—Typhus fever, a very dangerous, lingering, loathsome, and intractable malady, the analogue, if not the successor of the gaol fever —The causes of the two fevers identical—The houses of the poor are now what our prisons were — The water supply of our large towns compared with that of our prisons in Howard's time—Reports of the Health of Towns' Commission—Water begged, stolen, or fought for—Impurity of the air—Testimony of medical men—Want of light—Operation of the Window-tax—The gaol and the cellar—Courts and cellars of Liverpool—Defective drainage—State of our large provincial towns—Of the Metropolis —Police report of 1849—Want of proper bedding —Overcrowding: intimate relation of high mortality and density of population—Mr. Farr's calculations—Relative mortality of town and country—Prevalence of typhus fever in the crowded courts and cellars of Liverpool, 636
Guy, Dr., Dr. Hooper's Physicians' Vade Mecum, by, 624
Guy's Hospital, the London practice of medicine and surgery at, 69, 405
....., 81
..... Physical Society, 79, 360

H.

Hæmadynamics, Volkmann's, 625, 679
Hæmatodes, fungous, of the left testicle, 391
Hæmorrhage, 600
....., profuse, case of, occurring a fortnight after the operation of lithotomy, 532
Hair, human, diseases of the, 451
Hall, C. Radclyffe, M.D., on the action of the muscular coat of the bronchial tubes in respiration, 211
....., Marshall, Dr., 572
....., on the threatenings of apoplexy and paralysis, 459
Hand, case in which a fibro-cellular tumour was removed from the, 630
Handbill, disgraceful, 704
Happy homes of England, the, 191, 704,
Hare-lip apparatus, 48, 104
....., treatment of certain cases of, 111
Harrison's Spinal Institution, 503
Harvey demonstrating to Charles I. his theory of the circulation of the blood, 389
Hassall, Arthur Hill, M.B., the microscopic anatomy of the human body, 44
Hastings, H., M.D., on hare-lip apparatus, 48
Hawker, Mr., and the provident dispensaries, 574
Head, encysted tumours of the, 235
Health, appointment of officers of, 350
....., Board of, 442
..... of Professor Graham, 25
..... Belgium, 80
..... London, 630
....., medical officers of, 458
....., public, the, 102
....., lectures on, by Wm. A. Guy, M.B., 119, 195, 282, 337, 397, 474, 636
Health, public, prostitution in relation to, 297
....., state of the public, 438
....., the Board of, 191
Healthy skin, 305
Heart, rupture of the endocardium of both auricles of the, 51
Her Majesty's levee, 360
Hernia, diffused femoral, 348
....., femoral, 318
....., operation for, 233
....., operation for strangulated, 4
....., scrotal, 106
Hester, J. Torry, Esq., on congenital contraction of the fingers, and a new operation for their relief, and for the cure of deformities arising from the contraction of cicatrices of burns, 315
Hester's, Mr., operation, 356
Hewson, T. Assaldo, bequest of, 168
Higginbotton, John, Esq., observations on the use of nitrate of silver, 298
Hindostan, small-pox in, 375, 456
Hip-joint, suppuration of the, 275
....., upon the eversion and inversion of the limb in diseases of the, 534
Histology, Lectures on, by J. T. Quekett, Esq., 1, 58, 112, 170, 225, 309, 386, 446, 501, 555, 607, 666
Holl, H. B., Esq., hospital reports, 16
Home circuit, 360
Homes, happy, of England, 191
Homœopathic druggists, 573
Homœopaths, the, 49, 102, 158, 245, 331
..... and mesmerists, 379
Homœopathy, 458
..... and the Poor-law guardians at Sunderland, 162, 184
..... and its professors, 653
..... and its statistics, 483, 568, 596
....., by J. Stevenson Buskman, M.D., 463
....., fallacies of medicine and, 518
..... in Edinburgh, 621
....., resolutions adopted by the Royal College of Physicians regarding practitioners in, 604
Honorary distinction, 280
..... district accoucheurs of St. Mary's Hospital, 621
Hooper's, Mr., water pillows, 26
..... Vade Mecum, by Wm. A. Guy, M.B., 624
Horn, microscopic examination of, 102
Hospital, Bristol, the provincial practice of medicine and surgery at, 462
..... for sick children, 332
..... for diseases of the chest, 696
..... for sick children, 377
....., German, 277
....., Guy's, the London practice of medicine and surgery at, 69, 405
....., 81
....., King's College, 124
....., the London practice of medicine and surgery at, 12, 179, 238, 372, 618
....., Leith, 107
....., Liverpool, Northern, 191
....., London, the London practice of medicine and surgery at, 70, 206, 318
....., Metropolitan Free, 52, 387
....., Metropolitan Free, the London practice of medicine and surgery at, 151, 236
....., Middlesex, the London practice of medicine and surgery at, 407
....., Orthopædic, Royal, 153
....., Royal Free, the London practice of medicine and surgery at, 294
....., Seamen's, 330
....., the London practice of medicine and surgery at, 37, 180, 462
....., St. Bartholomew's, the London practice of medicine and surgery at, 10, 36, 150, 524, 563, 587, 675
....., St. George's, 442
..... the London practice of medicine and surgery at, 36, 480
....., St. Luke's, 277, 704
..... Mary's, 25, 73, 106, 134, 162, 183, 276, 325, 355, 485, 514, 521, 549, 605, 704
....., St. Thomas's, 106
....., the London practice of medicine and surgery at, 94, 204
....., the Belfast General, the provincial practice of medicine and surgery at, 564, 588
....., the Convalescent, 277
....., the Middlesex, 522
....., University College, the London practice of medicine and surgery at, 92, 292
Hospitals, 305
..... and their uses, 14
..... of London, 577
..... of Paris, 193
....., London, mortality in, 599
....., Parisian, 134
Huddersfield, epidemic cholera in, 256, 340, 399
Hughes, J. Vaughan, M.D., on encephaloid disease, 478
Human body, on the surgical anatomy of the, 298

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Human body, microscopic anatomy of the, 44
....., suffering, traffic in, 135
Humerus, fracture of the outer condyle of the, 70
....., transverse fracture of the, 94
Hunt, Thomas, Esq., on syphilitic eruptions, 624
....., on the medicinal action of arsenic in cutaneous and other diseases, 119
Hunterian Museum, the, 277, 467, 686
..... oration, 162, 223
Hutchinson, John, M.D., on the diagnosis and treatment of pulmonary consumption, 5
Hydatid bronchocele, on, 75
Hydatid cyst in the pleura, 10
Hydatids, or vesicular moles in utero, case of, 414
Hydrocele, in which intense suppurative inflammation supervened after simple tapping, 531
Hydrochloric ether, 432
Hydro-ferrocyanate of potash and urea, 76
Hygiene, public, letter to Lord Ashley on, 696
Hypertrophy and atrophy, 133

I.

Idiots, the Asylum for, 332, 360
Iliac, primary ligature of the, 102
Illegal practitioners, 20, 212
"Illustrious strangers," 699
Imperforate anus, 163
Imperforation of the uterus, 240
Improved circular steel tourniquet, description of an, for amputation, by F. A. Bulley, Esq., 478
Incipient gonorrhœa cured by the gum elastic catheter, 301
Income-tax, the, 243
....., medical profession and the, 235
Index, general, to the first thirty-three volumes of the Royal Medical Chirurgical Society, 298
India, sickness in, 163
..... rubber, new application of vulcanized, 575
Indian remedy for ophthalmia, 656
Indies, cholera in the West, 96
Indolent sore, resisting ordinary treatment, but speedily cured by the electric moxa, 553
Induction of miscarriage, 361
Infallibility of philosophical therapeutics, on the, by S. Thomas D'Alton, M.D., 33
Infant, erysipelas in an, 21
Infectious disease, is yellow fever an, 683
..... origin and propagation of cholera, on the, by Alexander Bryson, M.D., 506, 648, 666
Inferior maxillary bone, cystic tumour over the base and angle of the, 27
Infirmary, North Devon, 163
....., North Staffordshire, provincial practice of medicine and surgery at, 95
....., Plymouth Eye, 163
....., Royal, for Children, 331
....., Edinburgh, 52
Inflammation, absorbent, 499
..... deep-seated, of the cornea, 241
....., on the state of the blood and blood-vessels in, 154
Inflammatory diseases of the cervix uteri, diagnosis of, 437
Influenza, the, 299, 305
Inglis, the late Dr., 387
Inhalation of various medicinal substances, on the, 105
Inquiry on the subject of vaccination, 679
Insanity, remarks on the nature and treatment of, 488
Institute, decease of the, 377
Institute's Reform Bill, on the soi-disant reciprocity clause of the, 71
Institutions, public deaths in, 106, 134, 162
Instruction, clinical, 237
Instruments, supposed new, for the treatment of stricture of the urethra, 411
Intelligence, Parliamentary, 53
Interesting discovery, 25
Intermittents, treatment of, 80
Internal strangulation, 78
Intestines, new suture for the, 572
Introductory lectures, 84, 527
..... lecture at St. George's School of Anatomy, Medicine, and Surgery, by J. B. Daniell, M.D., F.R.C.P., 84
..... to the course of military surgery, by Jolliffe Tufnell, Esq., 527
Invalids, Malagar as a place of residence for, 145
Inversion of the uterus, 681
Iodine, 573
Irish Census, the, 408
Irish medical charities bill, 81, 121, 181, 263, 319, 350, 389, 427
..... school, 433
..... degrees, 517
..... charities and the Irish apothecaries, 316
Ireland, 81
....., Surgical Society of, 275
....., reports of meetings, 519
Iron, new preparation of, 104
....., the new superphosphate of, 279
....., the sesqui-oxide of, 158
Islands, Cape de Verde, 163
Is yellow fever an infectious disease? 683

J.

Jacksonian prize, the, 441
Jamaica, 361
....., cholera in, 52, 107, 659
Jaw, false anchylosis of the, 294
Jealousies of Journalists, 124
Jeejeebhoy, Sir Jemsetjee, 25
Jenner, Wm., M.D., on typhus fever, typhoid fever, relapsing fever, and febricula, 30, 67, 116, 312
John Hunter Club, the, 576
Jones, T. Wharton, F.R.S., on the state of the blood and the blood-vessels, 154
....., H. Bence, M.D., F.R.S., lectures on digestion, respiration, and secretion, 307, 363, 417, 471, 525, 579, 633
....., John, on self-supporting dispensaries, 77
Jordan Henry, practical observations on the teeth, 544
Journalists, the jealousies of, 124
Journals, foreign, selections from, 99, 128, 239, 324, 431, 571, 625, 679
Jurisprudence, medical, 699
Justices, the Essex, 467

K.

Kahn's, Dr., Anatomical Museum, 496
Kousso, 220
..... as an anthelmintic, John Savory on, 77
....., ascarides treated by, 356
....., cod-liver oil—iodine, 573
..... in tænia, 357, 564
....., by Henry H. Taylor, Esq., 562
Key-tsi-sing, the, or Chinese emmenagogue, 656
Kidney, on the nature and treatment of diseases of the, 210
King's College, 521
..... Hospital, 134, 521
....., the London practice of medicine and surgery at, 12, 179, 233, 372, 618
Kirkes, Dr. W. Senhouse, hospital reports, 10, 675
Knee-joint, superficial abcess over the, 57
Knox, Dr., Dr. Gregory in reply to, 241
....., some observations on excision of the pelvic extremity of the femur, by, 689
Köllikers letters from England, 540, 567, 627

L.

Labour, premature, 305, 600
....., rupture of the uterus, and removal of intestine in, 321
Lacerated wound of the scalp, 204
Lacteals, the origin of the, 324
Ladies' Charity, or Lying-in Hospital, the Liverpool, 277
Lanceolate director, ganglion treated by the, 35
Langdale, Lord, 467
Large calculus in the urethra, 190
Larynx, encysted tumour on the left side of the, 28
Latent disease, extensive, 242
Latham, Dr. R. G., 361
Lawrence, W., F.R.S., clinical lecture on surgery, 27, 392
Laycock, Thomas, M.D., clinical lecture on a new epidemic exanthem, 253
Leach, Mr., death of, 248

LEADERS :—
Hospitals and their uses, 14
Poor-law practice, 15
Distressed medical men, 15
The alleged Lunatics' Friend Society, 15
Clinical medicine, 39
The prevention of cholera, 40
Appointment of an unqualified practitioner by the Board of Ordnance Department at Cork, 41
Perineal section, 71
The *soi-disant* "reciprocity" clause of the Institute's Reform Bill, 72
St. Mary's Hospital, 73, 183
A "repudiating" patient, 73
Coroners' courts, 95
The Admiralty circular, 96
The Provincial Medical and Surgical Journal, 96
Numerical analysis of the medical profession, 96
The late Mr. Liston, 98
The Irish Medical Charities Bill, 98, 121, 181, 263, 319, 351, 427
Difficulties of medical men, 123
The jealousies of journalists, 124
Clinical medicine, 152
Lord John Russell and the Union Surgeons, 153
Royal Orthopædic Hospital, 153
Smithfield market, 153
The Institute's Reform Bill, 184
Homœopathy and the Sunderland guardians, 184
Hospitals and their uses, 207
The medical profession and the Income-tax, 235
Clinical instruction, 237
Poisonous nature of Scotch chloroform, 237, 297
The Vaccination Act and its results, 263
Lord Campbell's chloroform clause, 264
Royal Medical and Chirurgical Society, 236, 264, 296
Medical taxation, 295, 511
Conviction of Sarah Chesham, 296
The College theatre, 296
Rupture of the uterus and removal of intestine in labour, 321
The repeal of the window-tax, 322
Public urinals, 322
Amended Charter of the College of Surgeons, 349
The appointment of officers of health, 350
Small-pox in Hindostan, 375, 456
Hospital for sick children, 377
Decease of the Institute, 377
The Irish Census, 408
Proposed testimonial to Dr. Grant, 408
Medical officers of health, 458
The Great Exhibition, 485, 512, 538, 591, 622, 654, 677
St. Mary's Hospital, 485, 514
The Edinburgh Monthly Journal and its conductors, 514, 622
The Commissioners in Lunacy, their last report and their proper duties, 535
New Lunatic Asylum Registration Office, 537
Chairs of military surgery, 538,
University of London, 565
Convention of Poor-law surgeons, 566
Naval assistant surgeons, 567
Defective state of the laws of lunacy—declaration of Lord Ashley, 567
Homœopathy and its statistics, 583, 588
Conclusion of the election of medical officers to St. Mary's Hospital, 591
Homœopathy in Edinburgh, 621
The honorary district accoucheurs of St. Mary's Hospital, 621
Homœopathy and its professors, 653
English physicians in France, 590
Proposed chairs of military surgery, 620
The John Hunter Club, 676
Medical education, 676
The Council Election at the College of Surgeons, 693

Lecture, clinical, on surgery, by Edward Stanley, F.R.S., 3
..... Geo. Burrows, M.D., 609
..... ununited fracture, by John Adams, Esq., 395
..... a new epidemic exanthem, by Thomas Laycock, M.D., 253
....., introductory, to the course of military surgery, 527
....., by J. B. Daniell, M.D., F.R.C.S., 84
..... on metamorphosis and metagenesis, by Professor Owen, 663
Lectures, clinical, on medicine, by George Budd, M.D., F.R.S., 29, 83, 251, 355
..... surgery, by Wm. Fergusson, Esq., F.R.S., 143, 228, 445, 639
..... W. Lawrence, F.R.S., 27, 392
..... Bransby B. Cooper, F.R.S., 55, 168, 553
..... E. A. Lloyd, Esq., 111, 179
....., introductory, 84, 527
..... on digestion, respiration, and secretion, by H. Bence Jones, M.D., F.R.S., 307, 363, 417, 471, 525, 579, 633
..... histology, by J. T. Quekett, Esq., 1, 58, 112, 170, 225, 309, 366, 446, 501, 555, 607, 661
..... public health, by Wm. A. Guy, M.B., 119, 195, 282, 337, 397, 474, 636
..... original, 1, 27, 29, 55, 58, 60, 83, 111, 139, 168, 196, 223, 252, 279, 307, 335, 363, 391, 395, 417, 445, 471, 499, 525, 553, 557, 579, 607, 633, 661
....., scientific, 262, 295, 319, 348, 374, 408
....., the College, 276, 467
Leg, right, fracture of the tibia of the, 317
Legs, mammillated condition of the, in certain cases of dropsy, 330
....., ulcers of the, 285
Leith Hospital, 107
Lens, case of spontaneous dislocation of the, 291
Letheby, H., M.B., lectures on the chemistry of the poisons, 198, 368
Lecture XX.—Chemical properties of phosphorus continued—Action of water on it; of acids; of alkalies and earths; of solvents (solubility of phosphorus in acetic acid, alcohol, ether, olive-oil, turpentine, bisulphuret of carbon, &c.); of metallic compounds—Action of phosphorus on organic matters—Tests for phosphorus—Fallacies of these—Quantitative analysis of it—*Post-mortem* appearances in cases of poisoning by it—Antidotes to it, 198
Lecture XXI.—Modes of detecting phosphorus in organic, as in the contents of the stomach and alimentary canal, and in the urine—Proportions of phosphorus nominally present in food, &c.—Impurities of commercial phosphorus, as arsenic, copper, lead, iron, bismuth, antimony, sulphur, carbon, &c.—Methods of discovering these impurities—Processes to be adopted for purifying phosphorus, 368
Letter to the Right Honourable Lord Campbell, on the clause respecting chloroform in the proposed Prevention of Offences Bill, 299, 325

Leuret, M., death of, 211
Levee, the, 304
Liberality, civic, 332
Life assurance, 192, 496
....., new mode of destroying, 468
Ligature of the primary iliac, 102
Light, a physical substance, 163
Lime, oxalate of, dumb-bell crystals of, 92
Link, M., death of, 79
Lipoma in the abdominal cavity, 100
Liquor amnii, case of excessive quantity of, 65
List of scientific meetings, 14, 39, 71, 95, 121, 152, 181, 207, 235, 262, 295, 319, 349, 375, 408, 427, 456, 483, 511, 535, 565, 588, 620, 653, 676
Liston, the late Mr., 98
Lithotomy, case in which profuse hæmorrhage occurred a fortnight after the operation of, 532
....., case of, 499
Lithotrity and M. Civiale, 100
Liver and spleen, rupture of the, 131
....., scrofulous enlargement of the, 335
....., the minute biliary plexus of the, 324
Liverpool, 107, 163, 191, 361, 443
..... College of Chemistry, 305
....., recognition of the, by the Apothecaries' Hall, 565
..... Dispensary, 52, 81
..... Dispensaries, 191
....., the medical officers of the, 576
..... North Dispensary, 361
..... Northern Hospital, 191
..... School of Medicine, 443
..... Self-supporting Dispensary, 192
....., St. Ann's Dispensary, 277
....., the Ladies' Charity, 277
Livett, W., Esq., M.R.C.S., on operation for strangulated hernia, 4
Lizars, John, Esq., observations on stricture of the urethra, 409
....., on the perineal section, 47
Lloyd, E. A., Esq., clinical lecture on surgery, 111, 179
Local treatment of rheumatism, 128
London grave diggers, 80
....., health of, 630
..... Hospital, 389
..... Medical School, 522
....., the London practice of medicine
....., Hospitals of, 577
and surgery at, 70, 206, 318
....., Medical Society of, reports of meetings, 21, 50, 77, 104, 132, 134, 190, 217, 246, 275, 303, 328, 357, 385, 413, 437, 462, 494, 517, 546, 602, 619, 630, 656
..... Charities, 81
..... practice of medicine and surgery, 10, 36, 69, 92, 150, 179, 204, 233, 292, 318, 372, 405, 480, 534, 563, 587, 618, 675
....., sanitary condition of, 163
..... ., statistics of mortality in, for the year 1850, 22
....., Statistical Society of, 388
....., University College, 520
..... of, 134, 520
..... Hospital, 605
....., water supply of, 151
....., the cholera in, 704
Longevity, 523
Lord Langdale, 467
Lovett, Wm., elementary anatomy and physiology for schools, 544
Lunacy, certificates in, 576
....., Defective state of the law of, 567
....., remarks on the fifth report of the Commissioners of, 599
....., the Commissioners in, their last report and their proper duties, 535
Lunatic asylum, a new private, 25
....., destruction of a, by fire, 25
....., manslaughter of a, 497, 575
Lunatics' Friend Society, the alleged, 15, 19, 102
....., pauper, 576
Lung, malignant disease of, 675
Lyons, R. D., M.B., an apology for the microscope, 624

M.

Mackness, Dr, death of, 192
Maclaren, Dr., Dr. Roe in reply to, 271
M'Dougal v. Martin, 192
Madrid, Royal Academy of Surgery at, 658
....., University of, 632
Magnetism, 410
....., animal, 443
Mair, R. S., M.D., on ptosis and amaurosis from cerebral disease, 533
Malaga, temperature of, considered as a place of residence for invalids, 145
Malcolm, A. G., M.D., hospital reports, 564, 588
Malformation, congenital, of the bladder, 303
..... genito-urinary organs, case of, 479
Malignant disease of the lung, 675
..... right thigh, amputation of the limb, 280
Malignant disease of the lower third of the femur, case of, 179
Male fern, oil of, for the expulsion of tape-worm, 405
Mammillated condition of the legs in certain cases of dropsy, 330
Mankind, classification of, 351
Marshall, Henry, Dr., death of, 576
Manslaughter of a lunatic, 497, 575
....., what is, ? 704
Market, Smithfield, 153
Marshall's, Mr., new operation, 702
Martineau, Harriet, on the laws of man's nature and development, 238
Matico, 573
Maund, John, M.D., on ganglion treated by the lanceolate director, 35
Maxillary bone, cystic tumour over the base and angle of the inferior, 27
Marylebone Board of Guardians, 135, 163, 191, 305, 333, 361, 496, 576
Meetings, list of scientific, 14, 39, 71, 95, 121, 152, 181, 207, 235, 262, 295, 319, 349, 375, 408, 427, 456, 483, 511, 535, 565, 588, 620, 653, 676
Medals, war, 340
Mediastinum, anterior, on the more important diseases of the, 609
Medical appointments and vacancies, 360, 415, 442, 496, 522, 549, 575, 632, 658, 686, 703
....., and Surgical Journal, the Provincial, 96
..... Chirurgical Society, the Royal, reports of, 189, 264, 273, 296, 298, 304, 684
..... reports of meetings, 130, 214, 302, 307, 356, 383, 435, 492, 600, 629
..... Association, the Crewkerne and Yeovil, 80
..... charities, 332, 350
..... Bill, the Irish, 121, 161, 263, 319, 382, 427
..... department, the army, 162
..... Dispensary and Lying-in Charity, Oxford, 632
..... jurisprudence, 699
..... education, 676
....., introductory address on, 270
..... men, distressed, 15, 244
....., difficulties of, 123
..... in the army, 371
....., society for the relief of the widows and orphans of, 467
MEDICAL NEWS:—
24, 51, 79, 106, 134, 162, 191, 230, 248, 276, 304, 331, 359, 387, 414, 441, 467, 496, 520, 549, 603, 632, 658, 686, 703
..... officer, dismissal of a, 277
..... officers, black, 107
....., convention of Poor-law, 19
..... officers, fees to, 191
..... of, under the Nuisances Removal Bill, 53
..... of health, 458
....., placarding for, 191
....., the, of the dispensaries, Liverpool, 576
..... profession, letter to Sir George Grey on some of the social relations of the, 270
....., numerical analysis of the, 96
..... reform, expenses incurred in opposing, 26
..... relief, Poor-law, 162
..... science, progress of, 75, 99, 128, 239, 324, 431, 571, 625, 679
..... Society of London, reports of meetings, 21, 50, 77, 104, 132, 134, 190, 217, 246, 275, 303, 328, 357, 385, 413, 437, 462, 494, 517, 546, 602, 619, 630, 656
..... Society, Parisian, 52
....., San Francisco, fee bill of a,
..... taxation, 511, 546
..... students, coloured, 163
Medicinal action of arsenic in cutaneous and other diseases, by Thomas Hunt, Esq., 119
..... substances, on the inhalation of various, 105
Medicine, Faculty of, Paris, 699
.....and surgery, provincial practice of, 38, 95, 129, 207, 482, 564, 588
....., the London practice of, 10, 36, 37, 69, 70, 92, 94, 150, 179, 204, 233, 292, 318, 372, 405, 480, 534, 563, 587, 618, 675
....., clinical, 39, 49, 152
..... lecture on, by George Budd, M.D., F.R.S., 29, 251, 335
....., compulsory, 299
....., Liverpool School of, 442
....., on the science and art of, 543
....., psychological, 18
Medicines, recklessness in dispensing, 107
....., terebinthine, 74
....., the scale of, with which merchant vessels are to be furnished, 241
Medullary sarcoma, or fungus hæmatodes, 281
Meigs, Charles D., M.D., on obstetrics, 430
Melancholy suicide, 79
Membrane, buccal mucous, 75
Memoir of Dr. John Reed, 41, 124, 184, 265
Men, distressed medical, 15
Menstruation, diarrhœa as a symptom of, 272
....., on diarrhœa as a hitherto unnoticed symptom of, 247
Mercury, on syphilitic eruptions, with especial reference to the use of, 624
....., swelling of the right testis, treated by, 180
Merritt, Ann, the case of, 354
Merriman, Dr., on inversion of the uterus, 681
Mesmerism, 299
..... in Edinburgh, 129
Mesmerists, the, and Homœopaths, 379
Metagenesis and metamorphosis, on, 663
Metropolis, mortality in the, 360
....., sanitary statistics of the, 495
Metropolitan Convalescent Institution, 247, 679
..... Free Hospital, the London practice of medicine and surgery at, 151, 235
....., 52, 387
..... Sanitary Association, 78
..... sewers, 304
Microscope, an apology for the, 624
Microscopic examination of a horn, 102
..... exudations on the buccal mucous membrane, 75
Middlesex Hospital, 522
....., the London practice of medicine and surgery at, 407
Midwifery, cases in, by Edward Copeman, M.D., 623
..... J. Greene Crosse, M.D., 623
....., practical, 592
Military appointments, 52, 79, 106, 162, 191, 245, 276, 304, 331, 359, 415, 496, 549, 575, 658, 686
..... surgery, introductory lecture to the course of, 527
....., chairs of, 538, 620
Milton, J. L., Esq., on gonorrhœa, 65
....., hospital reports, 151, 235, 294
Minute biliary plexus of the liver, 324
Miscarriage, induction of, 361
Mistake, giving opium by, 389
....., poisoning by, 211
Mitral valve, rupture of the chordæ tendineæ of the, 407
Mode of origin and propagation of the epidemic cholera in Huddersfield and the neighbourhood, by John Taylor, M.D., 236, 310, 399
Modification of Simpson's uterine pessary, 432
Moffatt, Dr., 333
Mohamed, Sake Deen, 278
Monro, Dr, 79
....., Henry, M.D., remarks on the nature and treatment of insanity, 488
....., James, M.D., on the use of chloroform in removing foreign bodies from the eye, 66
Monthly Journal, the Edinburgh, and its conductors, 514
Monstrosity, anencephalous, 21
Moore, W. J., Esq., hospital reports, 38, 207
Mortality in London hospitals, 599
..... for the year 1850, statistics of, 22
..... the Metropolis, 360
..... of the French army, 241
..... tables, 24, 53, 81, 108, 110, 136, 165, 193, 220, 248, 278, 306, 334, 362, 389, 416, 443, 469, 497, 523, 552, 577, 632, 659, 688, 704
Morton, Thos., Esq., on the surgical anatomy of the principal regions of the human body, 296
Mucous corpuscles, the formation of, 324
Muscular fibres in the spleen, 324
Museum, the Hunterian, 467, 686
M'Williams, J. O., M.D., on the yellow fever of Brazil, 423, 448, 516

N.

Naval assistant surgeons, 549, 567
..... appointments, 24, 52, 79, 134, 191, 243, 304, 331, 360, 387, 442, 467, 496, 522, 632, 686, 703
..... promotions, 25
Naegele, death of, 220
Nævi, on the subcutaneous application of the ligature for deep-seated, 178
Navy estimates, the, 294
Neck, encysted tumour of the, on the left side of the larynx, 28
Neck, thick and vascular cyst in the, connected with the thyroid body; exposure of the cavity by free incision; cure, 28
Necrosis of the spine of the scapula, 154
..... bones of the cranium, case of, 353
..... whole shaft of the tibia, 219
..... patella from prolonged exposure to the heat of a fire, 36
..... tibia, 190
Neglect of vaccination, 107
Nelaton, M., election of, 572
Nelson v. Wright, 371
....., D., M.D., on clinical medicine, 49
Neligan, J. Moore, M.D., on medicines, their uses and mode of administration, 269
Nepaul, botany in, 467
Nerve fibres, the, 324
Nervous system, catalepsy in relation to other disorders of the, 346

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Nervous system, pathology of the, 91
Neuroma, extirpation of, without injury of the nerve, 572
New Act to regulate the sale of arsenic, 652
..... and successful treatment for febrile and other diseases, 17
..... application of vulcanized india rubber, 575
..... febrifuge, 700
..... operation, Mr. Marshall's, 702
Newcastle, 311
New crime, a, 361
..... disease of the uterus, 437
..... epoch in life assurance, 272
..... Lunatic Asylum Registration Office, 537
..... method of operating for the cure of fistula in ano, 333
..... mode of taking fees, 443
..... destroying life, 468
..... muscles of the urethra, 217
..... preparation of iron, 104
..... prison at Wandsworth, 361
..... private lunatic asylum, 25
..... superphosphate of iron, 275
..... suture for the intestines, 572
..... test paper, 52
..... uterine plug, 572
Newnham, Wm., Esq., on benevolent and provident societies, 260
News, medical, 24, 51, 79, 106, 107, 134, 162, 191, 220, 248, 276, 304, 331, 359, 387, 414, 441, 467, 496, 520, 549, 603, 632, 658, 686
Newton Abbott, Board of Guardians, 304, 331
Nicotine, 632
Nitrate of silver, on the use of, 298
Nobilis, the Amherstia, 135
North Devon Infirmary, 163
..... Dispensary, Liverpool, 361
..... Pancras Provident Dispensary, 220, 464
..... Staffordshire Infirmary, provincial practice of medicine and surgery at, 95
Northampton, Marquis of, death of the, 107
Northern Hospital, Liverpool, 443
Norwich Lunatic Asylum, 82
Noss, the cholera at, 271
Notes on the topography and diseases of Upper Scinde, by A. Campbell, Esq., 147
NOTICES TO CORRESPONDENTS:— 26, 54, 82, 108, 136, 165, 194, 221, 248, 278, 306, 334, 362, 390, 416, 444, 470, 497, 524, 552, 578, 605, 633, 660, 683
Nuisances Removal Bill, fees of medical officers under the, 53

O.

Obituary, 25, 52, 134, 162, 191, 220, 249, 276, 304, 331, 360, 387, 442, 467, 522, 549, 576, 658, 686, 704
Observations, explanatory, on the more speedy collection and adjustment of urinary sediments, 86, 173
..... on excision of the pelvic extremity of the femur, 689
..... on Mr. Thos. Underhill's anomalous case of pregnancy, absence of fœtus, 628
..... on diseases of the rectum, by T. B. Curling, F.R.S., 698
..... relating to the science and art of medicine, 543
Obstetrics, the science and the art of, 430
Officers and councillors of the Medical Society of London, 304
....., convention of Poor-law medical, 19
....., medical army, 52
Oil of male fern for the expulsion of tape worm, 405
Omental sac in a scrotal hernia, 106
Operation for congenital contraction of the fingers, 315
..... hernia, 233
....., new, Mr. Marshall's, 702
..... strangulated hernia, by H. W. Livett, Esq., M.R.C.S., 4
..... ununited fracture, 300
....., Mr. Hester's, 356
Ophthalmia, epidemic, 497
....., Indian remedy for, 656
....., Irish, Mr. Wilde on, 52
Opium, giving, by mistake, 389
Oration, Hunterian, 162, 223
Orbital exostosis, 494
Ordnance department, Cork, appointment of an unqualified practitioner by the, 41
Origin of the lacteals, the, 324
ORIGINAL COMMUNICATIONS:— 4, 30, 62, 86, 115, 145, 173, 201, 230, 256, 285, 312, 340, 399, 420, 448, 478, 504, 531, 557, 582, 612, 646, 666, 689
..... LECTURES:— 1, 27, 55, 83, 111, 139, 168, 196, 223, 252, 279, 307, 335, 363, 391, 417, 445, 471, 499, 525, 553, 557, 579, 607, 633, 661
Orthopædic Hospital, 153, 496, 627
Ovary, displacement of the, 115, 504
Owen, Professor, 248
....., lecture on metamorphosis and metagenesis, 663
....'s College, 134, 163, 333
Oxford Medical Dispensary, 334
....., the black fever near, 134
Oxford, University of, 520, 549, 605, 658

P.

Palsy and apoplexy, on the causes, nature, and treatment of, by James Copland, M.D., F.R.S., 459
Paper, a new test, 52
Paralysis and apoplexy, on the threatenings of, 459
....., functional, 21
..... of the bladder cured by electricity, 100
..... right and chorea of the left side, 235
Parietes, abdominal, after tapping, 51
Paris, Dr., 79
....., hospitals of, 193
....., statistics of suicide in, 443
Parisian hospitals, 134
..... Medical Society, 52
Parker, Nicholas, M.B., M.D., on the pathology of the nervous system, 91
Parliamentary intelligence, 53
Patella, necrosis of the, from prolonged exposure to the heat of a fire, 36
Pathological Society of London, 50, 105, 106, 161, 219, 332, 440
Pathology, chemical, cases illustrative of various points in, 618
..... of the uterus, on the, by T. Snow Beck, M.D., 7, 89, 175, 455, 582, 651
..... blood, 129
..... nervous system, 91
Patient, a "repudiating," 73
Pauper lunatics, 576
Pavy, F. W., Esq., hospital reports, 69, 405
Peacock, Henry, M.D., fracture caused by concussion, 534
Pearson, John, Esq., on the duration of human pregnancy, 48
Pelvic extremity of the femur, some observations on excision of the, 689
Pelvis, case of fracture and distortion of the, 384
Pembroke College, Oxford, 632
Penetrating wound of the abdomen, case of, 276
Perforation of the stomach, 77
Pericarditis, 19, 482
Perineal section, 71, 104
....., John Lizars, Esq., on the, 47
Perineo, fistula in, 168
Periostitis of the tibia, 219
Peritoneum, encephaloid disease of the, 132
Peruvian bark, 550
Pessary, uterine, modification of Simpson's, 432
Pharmacopœia, the Prescriber's, 624
Phillips, Richard, F.R.S., 535, 604
Philosophical therapeutics, the infallibility of, 33
Phthisis, case of non-suppurative, 510
....., on the etiology of, 420, 585, 641
....., the causes of, 218
Physical diagnosis of consumption, 431
..... substance, light a, 102
..... Society, Guy's, 79, 360
Physicians, Royal College of, 467
....., Surgeons', and General Practitioners', Visiting List, Diary, Almanack, &c., the, 18
Physiological properties of picrotoxine, 50
Physiology, agricultural, 98
Picrotoxine, physiological properties of, 50
Pillows, Mr. Hooper's water, 26
Pistol-shot wound, 319
Placarding for medical officers, 191
Placenta, fibrinous disease of the, 602
....., on fatty degeneration of the, and its influence as a cause of abortion, 600
Pleura, hydatid cyst in the, 10
Pleurisy, 132
....., results of tapping in, 29
Pleuritic effusions, cases in which there was unusual difficulty in the diagnosis of, 629
Pleurodynia—pleurisy—effusion, 132
Plug, new uterine, 572
Plymouth Eye Infirmary, 163
....., the cholera in, 159
Pneumonia, broncho-pleuro, 69
Poison, the curare, 571
Poisoning by arsenic, and delirium tremens, 413
..... mistake, 211
..... beetle wafers, 248
..... aconite, 435
Poisons, on the chemistry of the, 198, 368
....., sale of, 220
Poor-law guardians at Sunderland and Homœopathy, 162, 184
..... practice, 15
..... medical officers, convention of, 19, 519, 566
..... relief, 162
Poor, water for the, 163
Popliteal aneurism, case of, treated by compression, 684
..... artery, aneurismal dilatation of the posterior tibial vein, communicating indirectly with the, 630
Potash, hydro-ferrocyanate of, 76
Poultice, the galvanic, 411
Practical cases. By George Saunders, Esq., 348
..... midwifery, 592
Practical observations on diseases of the ear. By W. R. Wilde, Esq., 344, 404, 505, 612
..... the teeth, 544
..... remarks on some exhausting diseases. By Sir James Eyre, M.D., 624
..... asthenic puerperal fever. By T. W. Garlike, Esq., 402
Practice of medicine and surgery, provincial, 38, 95, 129, 207, 482, 564, 588
....., the London, 10, 36, 69, 92, 150, 179, 204, 233, 292, 318, 372, 404, 480, 534, 563, 587, 618, 675
....., poor-law, 15
Practitioners, illegal, 20, 212
....' Visiting List, Diary, Almanack, &c., the Physicians', Surgeons', and General, 18
Pregnancy, anomalous case of, absence of the fœtus, 533, 628
....., duration of human, 48
Premature labour, 305, 600
Preparation of atrophine by means of chloroform, 571
Prescribers' Pharmacopœia, the, 624
Prevention of cholera, 40
Primary iliac, ligature of the, 102
Principles of scientific botany, 16
Prison deaths, statistics of, 492
..... discipline, 357, 411
Private lunatic asylum, a new, 25
Prize, the Actonian, 407
..... Jacksonian, 441
Prizes, distribution of, 549
Profuse hæmorrhage, case of, occurring a fortnight after the operation of lithotomy, 532
Prognosticator, the tempest, 52, 538
PROGRESS OF MEDICAL SCIENCE:— 75, 99, 128, 239, 324, 431, 571, 625, 679
Promotions, naval, 25
Proposed testimonial to Dr. Grant, 408
Prostate gland, cancer of the, 50
....., tubercle in the, 100
Prostitution, in relation to public health, 297
Protector, respiratory organ and chest, 25
Prout, Dr., 25
Provident Dispensaries and Mr. Hawker, 574
Provincial Medical and Surgical Journal, 96
..... practice of medicine and surgery, 38, 95, 129, 207, 482, 564, 588
Psoriasis, 214, 299
Psychological medicine, 18
Ptosis and amaurosis from cerebral disease, by R. S. Mair, M.D., 533
Public bathing, 696
..... health, 192
....., prostitution in relation to, 297
....., state of the, 551
..... urinals, 322
Puerperal fever, 402
Pulmonary consumption, chloroform in, 493
....., diagnosis and treatment of, 5
....., the symptoms of, 463
Pyelitis, 292

Q.

Quackery, 193
....., extreme of, 135
....., gross, 305
Qualitative analysis, 74
Quarantine, 305
Queen, the, v. Hill, 577
Queen's College, Birmingham, 658
....., sessional report of, 468
..... Hospital, the provincial practice of medicine and surgery at, 38
Quicksilver mines in California, 577

R.

Radcliffe, Charles Bland, M.B., commentaries on convulsive diseases, 289, 370, 434, 515, 560, 646
Ramollissement of the brain, 603
Rash, scarlatinoid, case of, occurring after delivery, 64
Razor guard, Mr. Blackwell's, 26
Recamier's galvano-electric cataplasm, 657
Recklessness in dispensing medicines, 107
Rectum, tumour of the, 239
....., observations on diseases of the, 698
Reduction of dislocated femur, 20
Rees, G. Owen, M.D., on the nature and treatment of diseases of the kidney, 210
Reform Bill, 71
....., the Institute's, 184
....., medical, expense incurred in opposing, 26
Reid, Dr. John, Memoir of, 41, 124, 184, 265
Relapsing fever, 30, 67, 116, 312
Relation of sleep to convulsive affections, on the, 435
Remarks on the dumb-bell crystals of oxalate of lime, by Hugh Balfour, M.D., 92
..... etiology of phthisis, by Edward Smith, M.D., 420, 585, 641
..... fifth Report of the Commissioners in Lunacy, 599
Renton, John, M.D., on stricture of the urethra, and fistula in perineo, caused by external injury, 259

Digitized by Google

Repeal of the window-tax, 322
Report of the yellow fever of Cayenne, 686
REPORTS OF SOCIETIES:—
21, 50, 77, 104, 130, 161, 190, 214, 246, 273, 302, 327, 356, 383, 413, 435, 462, 492, 517, 546, 600, 629, 656, 684
"Repudiating" patent, a, 73
Resolutions unanimously adopted by the Royal College of Physicians of Edinburgh, regarding practitioners in Homœopathy, 604
Respiration, apparatus for producing artificial, 656
....., on the action of the muscular coat of the bronchial tubes in, 211
Respiratory organ and chest protector, 25
Resuscitation, apparatus for, 468
Retention of urine from stricture of the urethra, 168
Retroversio uteri, by Joseph Douglas, Esq., 291

REVIEWS & BIBLIOGRAPHICAL NOTICES: 16, 44, 74, 98, 126, 154, 208, 238, 269, 297, 322, 377, 409, 430, 459, 488, 592, 623, 679, 696
Principles of Scientific Botany, or Botany as an Inductive Science. By J. M. Schleiden, M.D. Translated by Edwin Lankester, M.D., F.R.S., &c., 16
On a New and Successful Treatment for Febrile and other Diseases through the Medium of the Cutaneous Surface. Illustrated with Cases. By William Taylor, M.R.C.S.E., 17
The Anatomist's Vade Mecum. A System of Human Anatomy. By Erasmus Wilson, F.R.S., 18
The Surgeon's Vade Mecum. By Robert Druitt, 18
The Physicians', Surgeons', and General Practitioners' Visiting List, Diary, Almanack, and Book of Engagements for 1851, 18
The Microscopic Anatomy of the Human Body. By Arthur Hill Hassall, M.B., 44
A Practical Treatise on the Therapeutic Uses of Terebinthine Medicines. By Thomas Smith, M.D., 74
Of the Crystalline Lens and Cataract. By B. E. Brodhurst, 74
Chemistry. By George Wilson, M.D., 74
A Manual of Qualitative Analysis. By Robert Galloway, 74
Agricultural Physiology and Vegetable, for the use of Practical Agriculturists. By T. Lindley Kemp, M.D., 98
Descriptive and Illustrated Catalogue of the Histological Series contained in the Royal College of Surgeons, 126
Appendix A to the Report of the General Board of Health on the Epidemic Cholera of 1848 and 1849. By Dr. Sutherland, 126
Appendix B to the Report of the General Board of Health. By Mr. Grainger, 126
On the State of the Blood and the Blood-vessels in Inflammation, ascertained by Experiments, Injections, and Observations, by the Microscope. The "Astley Cooper" Prize Essay for 1850. By T. Wharton Jones, F.R.S., 154
The Philosophy of Spirits in Relation to Matter. By C. M. Burnett, M.D., 208
Address before the American Medical Association. By J. C. Warren, M.D., 210
Instructions in the Use and Management of Artificial Teeth. By John Tomes, F.R.S., 210
On the Nature and Treatment of Diseases of the Kidney, Connected with Albuminous Urine, (Morbus Brightii.) By G. Owen Rees, M.D., F.R.S., 210
The Scale of Medicines with which Merchant Vessels are to be Furnished, by Command of the Privy Council for Trade; with Observations on the Means of Preserving the Health of Merchant Seamen, Directions for the Use of the Medicines, &c., &c. By T. Spencer Wells, Esq., F.R.C.S., 211
On the Action of the Muscular Coat of the Bronchial Tubes in Respiration. By C. Radcliffe Hall, M.D., 211
On a Remarkable Effect of Cross Breeding. By Alexander Harvey, M.D., 211
Letters on the Laws of Man's Nature and Development. By Henry George Atkinson, F.G.S., and Harriet Martineau, 238
Medicines: their Uses and Modes of Administration, including a complete Conspectus of the three British Pharmacopœias, an Account of all the New Remedies, and an Appendix of Formulæ. By J. Moore Neligan, M.D., 269
Introductory Address on Medical Education, delivered at Queen's College, Cork. By Alexander Fleming, M.D., 270
Pharmacopœia Nosocomii in Curam Morborum Cutaneorum, 270
Religion and Science, their Independence of each other, and their Mutual Relations. By a Physician, 270
A Letter to Sir George Grey on some of the Social Relations of the Medical Profession. By George Robinson, M.D., 270
Prostitution in Relation to Public Health. By William Acton, Esq., 297
General Index to the first Thirty-three Volumes of the Medico-Chirurgical Transactions, 298
A Small Contribution to the Great Exhibition of 1851. By Dr. J. C. H. Freund, 298
The Surgical Anatomy of the Principal Regions of the Human Body. By Thomas Morton, Esq., and William Cadge, F.R.C.S. Plates and Wood, 298
Guide de Médecin Practicien, ou Résumé Générale de Pathologie Interne et de Thérapeutique Appliquées. Par F. L. J. Valleix, 298
Additional Observations on the Nitrate of Silver. By John Higginbottom, F.R.C.S., 298
A Letter to the Right Honourable Lord Campbell, Lord Chief Justice of the Court of Queen's Bench, on the Clause respecting Chloroform in the proposed Prevention of Offences Bill. By John Snow, M.D., 299
Some Account of the last Yellow Fever Epidemic of British Guiana. By Daniel Blair, M.D., Surgeon-General of British Guiana. Edited by John Davy, M.D., F.R.S., 322
The Classification of Mankind by the Hair and Wool of their Heads; with an Answer to Dr. Prichard's Assertion that the Covering of the Head of the Negro is Hair, properly so termed, and not Wool. By P. A. Browne, LL.D., 351
Apuntes para la Historia Natural y Médica de la Sanguijuela; Memoria leida en la Seccion de Historia Natural en las Sesiones de 5 de Diciembre, 1842, y 2. de Enero. Por D. S. Escolar, 377
[Notes on the Medical and Natural History of the Leech, &c. By D. S. Escolar, 377]
Practical Observations on the Treatment of Stricture of the Urethra and Fistula in Perineo. Illustrated with Cases and Drawings of these Affections. By John Lizars, 409
Obstetrics; the Science and the Art. By Charles D. Meigs, M.D., 430
Diseases of the Human Hair. From the French of M. Cazenave. By T. H. Burgess, M.D., 431
A Concise Practical Guide to the Physical Diagnosis of Consumption. By R. Payne Cotton, M.D., 431
On the Threatenings of Apoplexy and Paralysis; Inorganic Epilepsy; Spinal Syncope; Hidden Seizures; the Resultant Mania, &c. By Marshall Hall, M.D., F.R.S., 459
Of the Causes, Nature, and Treatment of Palsy and Apoplexy; of the Forms, Seats, Complications, and Morbid Relations of Paralytic and Apoplectic Diseases. By James Copland, M.D., F.R.S., 459
Remarks on Insanity, its Nature and Treatment. By Henry Monro, M.D., 488
Urinary Deposits; their Diagnosis, Pathology, and Therapeutical Indications. By Golding Bird, A.M., M.D., F.R.S., F.L.S., 542
Observations Relating to the Science and Art of Medicine. By Wm. Wegg, M.D., 543
Elementary Anatomy and Physiology for Schools and Private Instruction. By William Lovett, 544
The Teeth and their Preservation. By Charles Vasey, 544
Practical Observations on the Teeth. By Henry Jordan, 544
Essays and Notes on the Physiology and Diseases of Women, and on Practical Midwifery. By John Roberton, Esq., 592
Pharmacopœia ad Usum Nosocomii Phthisicorum et Pectoris Morbis Ægrotantium Accommodata, 596
Cases in Midwifery. By the late John Greene Crosse, M.D., F.R.S. Arranged by Edward Copeman, M.D., F.R.C.S., 623
The Prescribers' Pharmacopœia; containing all the Medicines in the New "London Pharmacopœia" of 1851; arranged in Classes according to their action, with their Composition and Doses. By A Practising Physician, 624
An Apology for the Microscope. By Robert D Lyons, M.B., 624
Practical Remarks on some Exhausting Diseases. By Sir James Eyre, M.D., 624
Dr. Hooper's Physicians' Vade Mecum: or, a Manual of the Principles and Practice of Physic. By Wm. Augustus Guy, M.B. Cantab., 624
On Syphilitic Eruptions, with especial Reference to the Use of Mercury. By Thomas Hunt, Esq., 624
The Teeth and their Preservation, in Infancy, and Manhood, to Old Age. By Alfred Canton, Esq., 679
An Inquiry on the Subject of Vaccination. Addressed to the Royal Medical and Chirurgical Society. By Benjamin Ridge, M D, 679
Letter to Lord Ashley, M.P., on some Points connected with Public Hygiene and Christian Government. By Dr. Guggenbuhl, 696
Practical Remarks on the Treatment of Aneurism by Compression; with Plates of the Instruments hitherto employed in Dublin, and the recent Improvements by Elastic Pressure. By Jolliffe Tuffnell, M.R.I.A., 697
Observations on Diseases of the Rectum. By T. B. Curling, F.R.S., 698

Reynolds, J. Russell, Esq., hospital reports, 92, 292
Rheumatic arthritis, chronic, 105
Rheumatism, acute, 246, 299
....., articular, 90
....., treatment of, 128
Rich surgeon, a, 467
Ridge, Benjamin, M.D., an inquiry on the subject of vaccination, 679
Rigby, Edward, M.D., on displacement of the ovary, 115, 504
Right thigh, compound comminuted fracture of the, 482
Rio-Janeiro, fever in, 659
Roberton, John, Esq., on the physiology and diseases of women, and on practical midwifery, 592
Robinson, George, M.D., letter to Sir George Grey on some of the social relations of the medical profession, 270
Roe, Dr., in reply to Dr. Maclaren, 271
....., E. S., M.D., on wound of the brain, 316
Rooke, H. T. L., M.D., hospital reports by, 57, 180, 482
Rotation of the earth, 550
Royal Academy of Surgery, Madrid, 658
..... Berkshire Hospital, 276
..... College of Physicians of Edinburgh, resolutions unanimously adopted by the, regarding practitioners of homœopathy, 604
..... Surgeons, the, and the John Hunter Club, 713
....., fellowship of the, 276
....., list of gentlemen who have passed the, 51, 79, 106, 248, 359, 414, 441, 467, 522, 549, 575, 603, 686
..... Physicians, 467
..... Veterinary Surgeons, 443
..... Dispensary for Diseases of the ear, 496
..... Free Hospital, the London practice of medicine and surgery at, 294
..... Infirmary for children, 331
..... Medical and Chirurgical Society, report of meetings, 130, 214, 302, 327, 356, 383, 435, 492, 600, 629
....., 189, 264, 273, 296, 298, 304
..... Orthopædic Hospital, 496
..... Society, 79, 134, 658
..... of Edinburgh, 163
Rupture of the endocardium of both auricles of the heart, 51
..... liver and spleen, case of, 131
..... uterus and removal of intestine in labour, 321
..... chordæ tendineæ of the mitral valve, 407
Russell, Lord John, and the Union surgeons, 153

S.

Sale of arsenic in Germany, 389
..... Regulation Bill, 331
..... poisons, 220
Sanitary Association, 78, 549
..... campaign, 53
..... condition of London, 163
..... reform, 658
..... state of Berlin, 80
..... Bermondsey, 218
..... statistics of the Metropolis, 495
Sarcocele, syphilitic, 207
Sarcoma, medullary, case of, or fungus hæmatodes, 281
Saunders, George, Esq., practical cases by, 348
Savory, John, on kousso, 77
Scalding in gonorrhœa, 204
Scarlatinoid rash, case of, occurring after delivery, 64
Scalp, lacerated wound of the, 204
Scene, extraordinary, at the Royal Medical and Chirurgical Society, 248
Schleiden, J. M., on the principles of scientific botany, 16
School, Irish medical, 435
Science and religion, 270
....., medical, progress of, 75, 99, 128, 259, 324, 431, 571, 625, 679
....., utility of, 497
Scientific botany, principles of, 16
..... lectures, 262, 295, 319, 348, 374, 403
..... meetings, list of, 14, 39, 71, 95, 121, 152, 181, 207, 235, 262, 295, 319, 319, 375, 403, 427, 456, 483, 511, 535, 565, 588, 620, 655, 676
Scinde, Upper, notes on the topography and diseases of, 147
Scotch chloroform, poisonous nature of, 237, 297
..... diplomas, 492
Scrofula, treatment of, 571
Scrofulous enlargement of the liver, 335
Scrotal hernia, omental sac in a, 106
Sealy, W. B., M.D., case of compound fracture of the skull, 67
Seamen's Hospital, 330

Digitized by Google

Seamen's Hospital, the London practice of medicine and surgery at, 37, 180, 482
Section, Cæsarian, 214
....., perineal, 47, 71, 104
Sedillot on blue suppuration, 129
SELECTIONS FROM FOREIGN JOURNALS:—99, 128, 239, 324, 431, 571, 625, 679
Self-supporting dispensaries, 77, 103, 106, 163, 189 243, 270, 301, 326
..... Dispensary, Liverpool, 192
Serious charge against two medical gentlemen, 220
Sesqui-oxide of iron, 138
Sessional report of Queen's College, Birmingham, 468
Sewers, Metropolitan, 304
Sibley, S. W., Esq., hospital reports, 407
Sick Children, Hospital for, 332
Sickness in India, 163
Simpson's uterine pessary, modification of, 432
Sir Charles Mansfield Clarke, 360
Sir George Grey, a letter to, on some of the social relations of the medical profession, 270
Skin, healthy, 303
....., the treatment of febrile and other disorders through the medium of the, 657
Skull, compound fracture of the, 67
....., on the compression of the, 303
Sleep, on the relation of, to convulsive affections, 435
Small-pox, 361
..... and vaccination, 135
....., case of confluent, after a third vaccination, 273
....., recurring a third time after vaccination, when it proved fatal, 273
..... in Hindostan, 375, 456
Smith, Edward, M.D., on the etiology of phthisis, 420, 585, 641
....., Henry, Esq., F.R.C.S., hospital reports, 12 233
....., Mr. B., on the statistics of mortality in the Metropolis for the year 1850, 22
....., Thomas, M.D., on terebinthine medicines, 74
Smithfield Market, 80, 153
....., translation of, 331
Snow, John, M.D., letter to Right Hon. Lord Campbell on chloroform, 299, 325
Societies, reports of, 21, 50, 77, 104, 130, 161, 190, 214, 246, 273, 302, 327, 356, 383, 413, 435, 462, 492, 517, 546, 600, 619, 629, 656, 684
Society, Chemical, 441
....., the Epidemiological, 54, 191, 276, 415, 5 9, 659
..... for the Relief of Widows and Orphans of Medical Men, 467, 487
....., London Pathological, 50, 105, 106, 161, 219, 332, 440
..... of London, Statistical, reports of meetings, 495
....., Ireland, Surgical, 275
..... London, Medical, reports of meetings, 21, 50, 77, 104, 132, 190, 217, 246, 275, 303, 328, 357, 384, 413, 437, 462, 494, 517, 546, 602, 619, 630, 656
....., Royal, 134
....., Sydenham, the, 435, 522
....., the Alleged Lunatics' Friend, 15, 19, 102
....., Western Medical and Surgical, 464
Sodium, chloride of, in ulcerations of the cornea, 99
Soi-disant reciprocity clause of the Institute's Reform Bill, 71
Solly, Samuel, Esq., F.R.S., clinical lecture on surgery, by, 499
Somerset, North, regiment of yeomanry cavalry, 25
Sore, tertiary, 55
Speculum, the use of the, 199
Speer, S. T., M.D., case of acute non-suppurative phthisis, 510
Spiders, effects of the stings of, 432
Spinal Institution, Harrison's, 503
Spine, angular projection of the, 250
....., necrosis of the, 151
Spiral supporters, Bourjeaurd's, 639
Spleen, the muscular fibres in the, 324
Splenic blood-holding cells, 324
Spontaneous collapse of the walls of the antrum, 275
..... dislocation of the lens, case of, by Geo. W. Balfour, M.D., 291
Sprostan *v.* Davies, 442
Spurious tea, 550
St. Andrews, University of, 548
.... Ann's Dispensary, Liverpool, 277
.... George's Hospital, 442
....., the London practice of medicine and surgery at, 36, 480
.... Luke's Hospital, 277, 704
.... Mary's Hospital, 25, 73, 106, 134, 189, 183, 276, 325, 355, 485, 514, 521, 549, 605, 704
....., the honorary district accoucheurs of, 621
.... Thomas's Hospital, 106
....., the London practice of medicine and surgery at, 94, 264
Stanley, Edward, Esq., clinical lecture on surgery by, 3
Staphyloraphy, 100
Startin, James, Esq., on the advantages of an elastic convoluted spiral bandage in varicose veins and ulcers of the legs, 285
State of the public health, 433, 551
Statement of a case of chylo-serous urine, 327
Statistical Society of London, report of meetings, 388, 495
Statistics, homœopathy and its, 483, 588, 596
..... of mortality in London for the year 1850, by Mr. B. Smith, 22
..... prison deaths, 492
....., sanitary, of the Metropolis, 495
..... of suicide in Paris, 443
Sterility, causes of—obliteration of the spermatic ducts, 571
Sternum, carinated, apparatus for, 357
Stings of spiders, effects of the, 432
Stomach, perforation of the, 77
Stone, Thomas, Dr., appointment of, 220
Strabismus, 587
"Strangers, Illustrious," 699
Strangulated hernia, operation for, 4
Strangulation, internal, 78
Stricture of the urethra, 409, 411
....., on the treatment of, 557, 615, 671
..... and fistula in perineo, caused by external injury, by John Renton M.D., 259
....., retention of urine from, 168
Striped muscular fibres, a new formation in tumours, 300
Strychnia used by farmers and others for poisoning vermin, 380
Students, advice to, 244
Studentships, College, 467
Subcutaneous, application of the ligature for deep-seated nævi, on the, by John Adams, Esq., 178
Substances, medicinal, on the inhalation of various, 105
Successful treatment for febrile and other diseases, new and, 17
Suffocation by carbonic acid, 128
Sugar in the fœtal urine, 432
Suicide, melancholy, 79
....., statistics of, in Paris, 443
Sulphate of cadmium, 432
Sunderland, the Poor-law Guardians at, and homœopathy, 162, 184
Superficial abscess over the knee-joint, 57
Supposed new instrument for the treatment of stricture of the urethra, 411
Suppuration, blue, 129
..... of the hip-joint, 275
Surgeon, a rich, 467
Surgeons, amended charter of the College of, 349, 380
..... and chemical analysis, 468
....., examination at the College of, 332
....., the Council Election at the College of, 693
.....' and General Practitioners' Visiting-list, Diary, Almanack, &c., the Physicians', 18
....., Union, and Lord John Russell, 153
.....' Vade Mecum, the, 18
....., veterinary, 686
Surgery, cases in, by Henry Smith, Esq., 531
....., clinical lecture on, by Samuel Solly, Esq., F.R.S., 499
....., military chairs of, 538, 620
....., practical, on the application of the heat of electricity in, 492
....., the London practice of medicine and, 10, 36, 69, 92, 150, 179, 204, 233, 292, 318, 372, 405, 480, 534, 563, 587, 618, 675
....., the provincial practice of medicine and, 38, 95, 129, 207, 482, 564, 588
Surgical anatomy of the human body, on the, 298
..... Society of Ireland, 275
....., reports of meetings, 519
Sutherland, Dr., on the cholera, 126
Swallowing copper coins, 656
Swelling of the right testis, 180
Sydenham Society, the, 435, 522
Sydney, fees in, 107
Symptoms of pulmonary consumption, 463
Synovitis, 554
Syphilitic eruptions, with especial reference to the use of mercury, by Thomas Hunt, Esq., 624
....., sarcocele, 207

T.

TABLES OF MORTALITY:—24, 53, 81, 108, 136, 165, 193, 220, 248, 278, 306, 334, 362, 389, 416, 443, 469, 497, 523, 552, 577, 632, 659, 688, 704
Tænia, kousso in, 357, 562, 563
Tape-worm, oil of male fern for the expulsion of, 405
Tapping, abdominal parietes after, 51
....., result of in pleurisy, 29
Taxation, medical, 295, 511, 546
Taylor, Henry H., Esq., on kousso in tænia, 563
....., John, M.D., on epidemic cholera in Huddersfield, 256, 340, 399
....., W., on a new and successful treatment for febrile and other diseases through the medium of the cutaneous surface, 17
Tea, spurious, 550
Teeth, 496
..... and their preservation, 544
....., by Alfred Canton, Esq., 679
....., artificial, instructions in the use and management of, 210
....., practical observations on the, 544
Temperature, 135
....., unusually high, 107
..... of Malagar, considered as a place of residence for invalids, 145
Tempest prognosticator, 52, 389
Temporal bone, caries of the petrous portion of the, 275
Terebinthine medicines, 74
Tertiary sore, 55
Test paper, a new, 52
Testicle, development of the, 411
....., enlargement and induration of the right, 391
....., fungus hæmatodes of the left, 391
Testicles, tuberculosis of the, 160
Testimonial, gratifying, 108
..... to Dr. Grant, 408
..... Mr. Clarke, 604
Testis, right, swelling of the, treated by mercury, 180
Theatre, the College, 296
Therapeutics, philosophical, on the infallibility of, 33
Thick and vascular cyst in the neck, connected with the thyroid body; exposure of the cavity by free incision; cure, 28
Thigh, amputation of, 348
....., right, malignant disease of the; amputation of the limb, 280
Thorpe, R., Esq., death of, 134
Tibia, necrosis of the whole shaft of the, 219
....., 199
....., periostitis of the, 219
Tomes, John, Esq., F.R.S., on the use and management of artificial teeth, 210
Tomline, Mr., bequest of, 25
Topography and diseases of Upper Scinde, notes on the, 147
Traffic in human suffering, 135
Translation of Smithfield-market, 331
Transverse fracture of the humerus in a healthy subject from muscular contraction, 94
Treatment, new and successful, for febrile and other diseases, 17
....., on the, of certain cases of hare-lip, 111
..... of rheumatism, 128
..... aneurism by compression, 697
..... large abscesses, 58
..... pulmonary consumption, diagnosis and, 5
..... scrofula, 571
..... febrile and other disorders through the medium of the skin, 657
..... distortions of the spine, angular projection of the spine, and paralysis, by Charles Verrall, Esq., 230
..... intermittents, 80
..... anasarca or general dropsy, by puncturing the legs, 384
Truss, Dr. Arnott's, 81
Tubercle in the prostate gland, 100
Tuberculosis of the testicles, 160
Tuffnell, Jolliffe, Esq., introductory lecture to the course of military surgery, 527
....., on the treatment of aneurism by compression, 697
Tumour, case in which a fibro-cellular, was removed from the hand, 630
....., cystic, over the base and angle of the inferior maxillary bone, 27
....., encysted, of the neck, on the left side of the larynx, 28
....., fibrous, of the uterus, 130, 218
..... of the rectum, containing portions of a fœtus, 239
Tumours, encysted, of the head, 235
....., striped muscular fibres, a new formation in, 300
Typhoid fever, 158, 355
Typhous patients, condition of the internal ear in, 431
Typhus fever, typhoid fever, relapsing fever, and febricula, by Wm. Jenner, M.D., 30, 67, 116, 3.2

U.

Ulcer, corroding, of the uterus, 246
..... of the os and cervix uteri, 384
Ulcers of the legs, 285
Underhill, Thomas, Esq., anomalous case of pregnancy; absence of the fœtus, 533, 628
Union surgeons, and Lord John Russell, 153
United States, coloured medical students in the, 168

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University College, 331
..... Hospital, the London practice of medicine and surgery at, 92, 292
..... of Oxford, 520, 549, 605, 658
..... College, 520
..... Hospital, 605
..... of Cambridge, 106, 134, 520, 658
..... London, 520, 565
..... Madrid, 632,
..... St. Andrew's, 548
Unqualified practitioner, appointment of an, by the Ordnance Department of Cork, 41
Ununited fracture, 12, 220, 294, 395
....., Dieffenbach's operation for, 300
Unusual accident to the ankle, 278
Unusually high temperature, 107
Urethra, calculus removed by dilatation of the, 242
....., large calculus in the, 190
....., new muscles of the, 217
....., stricture of the, 409, 411, 557, 615, 671
....., and fistula in perineo, 259
Urinals, public, 322
Urinary deposits, their diagnosis, pathology, and therapeutical indications, 542
Urine, cases of chorea, with examinations of the, 372
....., chylo-serous, case of, 327
....., retention of, from stricture of the urethra, 168
....., sugar in the fœtal, 432
Use of chloroform, 275
..... the speculum, 190
Uses, hospitals and their, 14
Uteri, retroversio, 291
Uterine pessary, modification of Simpson's, 432
Uterus, a new disease of the, 437
....., on inversion of the, 681
....., complete absence of the, 432
....., corroding ulcer of the, 246
....., fatal inversion of the, 602
....., fibrous tumour of the, 130, 218
....., functional diseases of the, 385
....., imperforation of the, 240
....., on the pathology of the, 7, 89, 175, 455, 582, 651
....., rupture of the, 321
Utility of science, 497
Uttermarck, George, Esq., hospital reports, 95

V.

Vacant professorship of chemistry, 106
Vaccination and small-pox, 135
..... Act and its results, 263
....., an inquiry on the subject of, 679
....., case of small pox recurring a third time after, 273
....., neglect of, 107
Vaccine protection question, 544
Vade Mecum, Dr. Hooper's, 624
....., the Surgeons', 18
..... Anatomists', 18
Vagina, absence of the, 240
Valleix, F. L. J., Guide de Médecin Practicien, ou Résumé Générale de Pathologie Interne et de Thérapeutique Appliquées, 298
Vapour bath, 659
Varicose veins, 285
Vascular cyst in the neck connected with the thyroid body; exposure of the cavity by free incision; cure, 28
Vasey, Charles, on the teeth and their preservation, 544
Veins, varicose, 285
Venables, Robert, A.M., M.D., explanatory observations on the more speedy collection and adjustment of urinary sediments, 86, 173
Venereal affections of the brain, 635
Venous murmurs, 495
Ventricle, left, aneurism of the, 105
Vermin, strychnia used by farmers for poisoning, 380
Verral, Charles, Esq., on the treatment of distortions, angular projection of the spine, and paralysis, 230
Vesico-vaginal fistula, 699
Vesicular moles in utero, case of hydatids or, 414
Vessels, emigrant, 442
Veterinary surgeons, 686
....., Royal College of, 443
Vincent, Mr., 549
Virus, gonorrhœal, on the communicability of, 462
Visiting List, Diary, Almanack, &c., the Physicians', Surgeons', and General Practitioners', 18
Volkmann's Hæmadynamics, 625, 679
Vulcanized India-rubber, new application of, 575

W.

Wade, Robert, Esq., on the treatment of permanent stricture of the urethra, 557, 615, 671
Waller, Charles, M.D., on the duration of human pregnancy, 48
Walton, Haynes, on excision of the head of the femur, 76
Wandsworth, new prison at, 361
War medals, 340
Warburg's, Dr., new febrifuge, 700
Ward, Nathaniel, Esq., hospital reports, 70, 318
Warren, J. C., M.D., address before the American Medical Association, 210
Water for the poor, 163
..... pillows, Mr. Hooper's, 26
..... supply of London, 151
Wegg, Wm., M.D., on the science and art of medicine, 543
Weights and measures, French, 247
Wells, T. S., Esq., on the scale of medicines with which merchant vessels are to be furnished, 211
West Derby Guardians, 192
Western General Dispensary, 277
..... Medical and Surgical Society, 464
West Indies, cholera in the, 26, 277
Westminster General Dispensary, 360
What is manslaughter? 704
Wiblin, John, Esq., case of congenital malformation of the genito-urinary organs, 479
Wigan, 192
Wilde's, Mr., reports, 412
Wilde, Mr., on Irish ophthalmia, 52
....., W. R., Esq., practical observations on diseases of the ear, 344, 404, 505, 612
Will case, the great, 468
Wilson, Erasmus, the Anatomist's Vade Mecum, 8
....., Geo., M.D., on chemistry, 74
Window-tax, repeal of the, 322
Women, on the physiology and diseases of, 592
Wound, lacerated, of the scalp, 204
..... of the brain, by E. T. Roe, M.D., 316
....., pistol shot, 319

Y.

Yellow fever, 277, 322, 354
..... in Brazil, 423, 448, 467, 489, 516, 545
..... Cayenne, 686
....., is it an infectious disease? 683
York School of Medicine, clinical lecture at, 253

LIST OF ENGRAVINGS.

Illustrating Mr. Quekett's lectures on histology, pp. 1, 2, 58, 59, 60, 113, 114, 115, 170, 171, 172, 225, 226, 227, 228, 309, 310, 311, 366, 367, 446, 447, 448, 503, 555, 556, 607, 608, 609, 661, 662, 663

——— Dr. Maund's paper on ganglion, treated by the lanceolate director. Two, p. 35

——— a case of cancer of the prostate gland, p. 51

——— a singular case of extensive and severe compound fracture of the skull, p. 67

——— Dr. Arnott's truss, p. 81

——— the dumb-bell crystals of oxalate of lime, p. 92

——— Dartnell's double hernia truss, p. 149

——— a large calculus in the urethra, p. 190

——— the treatment of distortions of the spine, p. 232

Illustrating the advantages of an elastic convoluted spiral bandage in varicose veins and ulcers of the legs, p. 286

——— a new operation for the cure of deformities arising from the contraction of cicatrices of burns. Three, pp. 315, 316

——— the crystals in urine in cases of chorea. Two, pp. 373, 374

——— an apparatus for restoring to life. Two, p. 468

——— an improved circular steel tourniquet for amputations, p. 479

——— a case of congenital malformation of the genito-urinary organs, p. 479

——— Dr. Bence Jones's lectures on animal chemistry. *Diagram.* P. 634

END OF VOLUME XXIII.

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